

THE ROLE OF IP IN FOSTERING THE GROWTH OF SMEs



18-20 June, 2024

1

Definition of Small and Medium Enterprises

1.1. EPO

EPO relies on the definition of the European Union for the identification of micro, small and medium-sized enterprises (SMEs) located in its 39 member states.

Commission Recommendation 2003/361 defines micro, small and medium-sized enterprises (SMEs) as any independent entity engaged in an economic activity, irrespective of its legal form, that fulfils the criteria summarized in the table below. In addition to the staff headcount ceiling, an enterprise qualifies as an SME if it meets either the turnover ceiling or the balance sheet ceiling, but not necessarily both.

- A medium-sized company has less than 250 employees, a turnover of up to €50 million and a balance sheet total of up to €43 million;

- A small company has less than 50 employees and a turnover or balance sheet total of up to €10 million;
- A micro-company has less than 10 employees and a turnover or balance sheet total of up to €2 million.

Entities that are part of a larger enterprise group do not meet the requirement of independence. Their SME status then depends on the aggregated values for the entire group.

This definition is uniform across industry sectors. EPO applies it insofar as possible based on available data, including various commercial databases providing information on the number of employees, turnover, balance sheet and ownership of European companies.

1.2. JPO

The definition of small and medium enterprises in Japan within laws such as the Patent Act (Art. 109-2, para. 2) and the Small and Medium-sized Enterprise Support Act (Art. 2, para. 1) is as follows:

Other types of enterprises may fall within the scope of the SMEs or other organizations eligible for certain measures related to SME development.

Table 1. Scope of SMEs by industry in Japan

	Industry	Number of employees	Amount of capital or total contribution
(a)	Manufacturing, construction, transportation, other industries (excluding those included in (b) to (g))	Up to 300	Up to 300 million yen
(b)	Wholesale	Up to 100	Up to 100 million yen
(c)	Services (excluding those included in (f) and (g))	Up to 100	Up to 50 million yen
(d)	Retail	Up to 50	Up to 50 million yen
(e)	Rubber products manufacturing industry (excluding automobile or aircraft tire and tube manufacturing industry and industrial belt manufacturing industry)	Up to 900	Up to 300 million yen
(f)	Software service industry or information processing service industry	Up to 300	Up to 300 million yen
(g)	Hotel business	Up to 200	Up to 50 million yen

1.3. KIPO

1.3.1. SMEs eligible for measures for the development of SMEs ¹⁾

For-profit businesses that meet all of the following requirements:

- (a) Sales or total assets, etc. for each industry shall meet the standards prescribed by Presidential Decree; and
- (b) Actual separation of ownership and management, such as in terms of ownership of shares or an investment relationship, shall meet the standards prescribed by Presidential Decree

1.3.2. Standards to be SMEs ²⁾

Size Standard

- (a) The main type of business in which the business entity is engaged and its average sales or annual sales shall meet the standards as prescribed in the Annex of ENFORCEMENT DECREE OF THE FRAMEWORK ACT ON SMALL AND MEDIUM ENTERPRISES.
- (b) A corporation with total assets of less than KW 500 billion (around USD 384,000,000)

Independence Standard

A business entity whose actual separation of its management and ownership does not fall under any of the following:

- (a) A business entity whose largest shareholder, directly or indirectly owning 30/100 or more of the total outstanding stocks, etc., is a corporation with total assets of at least 500 billion; less than KW 500 billion (around USD 384,000,000)
- (b) In the case of belonging to a related company group, a business entity whose average sales, etc. does not satisfy the standards as prescribed in the Annex of ENFORCEMENT DECREE OF THE FRAMEWORK ACT ON SMALL AND MEDIUM ENTERPRISES

1.3.3. Size standard by types in which the business entity is engaged

Size standards have been established for types of economic activity, or industry, generally under the Korean Standard Industrial Classification (KSIC).

Table 2. SMEs standard based on average sales by industry in Republic of Korea

Industry			Small & Medium Enterprises	Small Enterprises
Manufacturing	Manufacture of wearing apparel, clothing accessories and fur articles	C14	150 billion KRW	12 billion KRW
	Manufacture of leather, luggage and footwear	C15		12 billion KRW
	Manufacture of pulp, paper and paper products	C17		8 billion KRW
	Manufacture of basic metals	C24		12 billion KRW
	Manufacture of electrical equipment	C28		12 billion KRW
	Manufacture of furniture	C32		12 billion KRW
	Manufacture of food products	C10	100 billion KRW	12 billion KRW
	Manufacture of tobacco products	C12		8 billion KRW
	Manufacture of textiles, except apparel	C13		8 billion KRW
	Manufacture of wood and of products of wood and cork; except furniture	C16		8 billion KRW
	Manufacture of coke, briquettes and refined petroleum products	C19		12 billion KRW

1) FRAMEWORK ACT ON SMALL AND MEDIUM ENTERPRISES (Enforcement 15 November, 2022, Act No.19044), <https://www.law.go.kr/LSW/eng/engLsSc.do?menuId=2§ion=lawNm&query=SME&x=0&y=0#liBgcolor21>

2) ENFORCEMENT DECREE OF THE FRAMEWORK ACT ON SMALL AND MEDIUM ENTERPRISES (Enforcement 9 June, 2021, Presidential Decree No.31758), <https://www.law.go.kr/LSW/eng/engLsSc.do?menuId=2§ion=lawNm&query=SME&x=0&y=0#liBgcolor0>

Industry			Small & Medium Enterprises	Small Enterprises
Manufacturing	Manufacture of chemicals and chemical products; except pharmaceuticals and medicinal chemicals	C20	100 billion KRW	12 billion KRW
	Manufacture of rubber and plastics products	C22		8 billion KRW
	Manufacture of fabricated metal products, except machinery and furniture	C25		12 billion KRW
	Manufacture of electronic components, computer; visual, sounding and communication equipment	C26		12 billion KRW
	Manufacture of other machinery and equipment	C29		12 billion KRW
	Manufacture of motor vehicles, trailers and semitrailers	C30		12 billion KRW
	Manufacture of other transport equipment	C31		8 billion KRW
	Manufacture of beverages	C11	80 billion KRW	12 billion KRW
	Printing and reproduction of recorded media	C18		8 billion KRW
	Manufacture of pharmaceuticals, medicinal chemical and botanical products	C21		12 billion KRW
	Manufacture of other non-metallic mineral products	C23		12 billion KRW
	Manufacture of medical, precision and optical instruments, watches and clocks	C27		8 billion KRW
	Other manufacturing	C33		8 billion KRW
	Maintenance and repair services of industrial machinery and equipment	C34	60 billion KRW	1 billion KRW
	Electricity, gas, steam and air conditioning supply	D	100 billion KRW	12 billion KRW
	Water supply; sewage, waste management, materials recovery	E36		12 billion KRW
	Agriculture, forestry and fishing	A		8 billion KRW
	Mining and quarrying	B		8 billion KRW
	Construction	F		8 billion KRW
	Wholesale and retail trade	G	80 billion KRW	5 billion KRW
	Transportation and storage	H		8 billion KRW
	Information and communication	J		5 billion KRW
	Waste collection, treatment and disposal activities; materials recovery	E	60 billion KRW	3 billion KRW
	Professional, scientific and technical activities	M		3 billion KRW
	Business facilities management and business support services; rental and leasing activities	N		3 billion KRW
	Arts, sports and recreation related services	R		3 billion KRW
	Human health and social work activities	Q		1 billion KRW
	Membership organizations, repair and other personal services	S		1 billion KRW
	Financial and insurance activities	K	40 billion KRW	8 billion KRW
	Real estate activities	L		3 billion KRW
	Rental and leasing of intangible property	N76		3 billion KRW
	Accommodation and food service activities	I		1 billion KRW
	Education	P		1 billion KRW

1.4. CNIPA

In 2011, the Provisions on Criteria for Classifying Small and Medium-sized Enterprises was issued by the Ministry of Industry and Information Technology, the National Bureau of Statistics, the National Development and Reform Commission and the Ministry of Finance, providing definitions of small and medium-sized enterprises. The standards for medium and small

enterprises shall be set according to the number of employees, sales amount, total amount of assets of the enterprise etc., and in light of the characteristics of the industries. Small and medium-sized enterprises are categorized into 3 types: small enterprise, medium-sized enterprise and micro enterprise. Relevant regulations are as follows:

Table 3. Scope of SMEs by industry in China

Categories of Industries	Names of Indexes	Unit of Calculation	Micro Enterprise	Small Enterprise	Medium-sized Enterprise	Medium-sized, Small and Micro Enterprise
Agriculture, forestry, stock raising and fishery	Sales Amount	Ten Thousand Yuan	< 50	≥50	≥500	< 20000
Industry	Number of Employees Sales Amount	Persons Ten Thousand Yuan	< 20, or < 300	≥20, and ≥300	≥300, and ≥2000	< 1000, or < 40000
Construction	Sales Amount TotalAmount of Assets	Ten Thousand Yuan Ten Thousand Yuan	< 300, or < 300	≥300, and ≥300	≥6000, and ≥5000	< 80000, or < 80000
Wholesaling	Number of Employees Sales Amount	Persons Ten Thousand Yuan	< 5, or < 1000	≥5, and ≥1000	≥20, and ≥5000	< 200, or < 40000
Retailing	Number of Employees Sales Amount	Persons Ten Thousand Yuan	< 10, or < 100	≥10, and ≥100	≥50, and ≥500	< 300, or < 20000
Transportation	Number of Employees Sales Amount	Persons Ten Thousand Yuan	< 20, or < 200	≥20, and ≥200	≥300, and ≥3000	< 1000, or < 30000
Warehousing	Number of Employees Sales Amount	Persons Ten Thousand Yuan	< 20, or < 100	≥20, and ≥100	≥100, and ≥1000	< 200, or < 30000
Postal service	Number of Employees Sales Amount	Persons Ten Thousand Yuan	< 20, or < 100	≥20, and ≥100	≥300, and ≥2000	< 1000, or < 30000
Accommodation	Number of Employees Sales Amount	Persons Ten Thousand Yuan	< 10, or < 100	≥10, and ≥100	≥100, and ≥2000	< 300, or < 10000
Catering	Number of Employees Sales Amount	Persons Ten Thousand Yuan	< 10, or < 100	≥10, and ≥100	≥100, and ≥2000	< 300, or < 10000
Information transmission	Number of Employees Sales Amount	Persons Ten Thousand Yuan	< 10, or < 100	≥10, and ≥100	≥100, and ≥1000	< 2000, or < 100000
Software and information technology service	Number of Employees Sales Amount	Persons Ten Thousand Yuan	< 10, or < 50	≥10, and ≥50	≥100, and ≥1000	< 300, or < 10000
Real estate development and management	Sales Amount TotalAmount of Assets	Ten Thousand Yuan Ten Thousand Yuan	< 100, or < 2000	≥100, and ≥2000	≥1000, and ≥5000	< 200000, or < 10000
Property Management	Number of Employees Sales Amount	Persons Ten Thousand Yuan	< 100, or < 500	≥100, and ≥500	≥300, and ≥1000	< 1000, or < 5000
Leasing and business service	Number of Employees TotalAmount of Assets	Persons Ten Thousand Yuan	< 10, or < 100	≥10, and ≥100	≥100, and ≥8000	< 300, or < 120000
Others	Number of Employees	Persons	< 10	≥10	≥100	< 300

1.5. USPTO

The U.S. defines a small entity³⁾ and the USPTO recognizes a micro entity.⁴⁾ To qualify for the small entity patent fees discount in a patent application, all parties holding rights in the invention must qualify as a small entity. Small entity status requires that “ the applicant(s), each inventor, and any other party with an ownership interest in the invention (e.g., assignees, licensees and obligated assignees or licensees) qualify under 37 CFR 1.27as: (1) a smallbusiness concern as defined in 37 CFR 1.27(a)(2)which, including affiliates, has fewer than 500 employees, (2) a nonprofit organization as defined in 37 CFR 1.27(a) (3), or (3) an individual who has not assigned, licensed or otherwise conveyed or promised to convey an interest in the invention to a non-small entity.”

An application or patent may qualify for micro entity status under 37 CFR 1.29 if:

- (1) Each applicant, each inventor, and every other party with an ownership interest in the application or patent application is a small entity;
- (2) The additional requirements for micro entity status are satisfied such as additional limits on gross income and the number of previously-filed applications that the gross income basis for micro entity status requires; and
- (3) The applicant or patentee files a micro entity certification in the application or patent for which micro entity status is desired.

3) 37 C.F.R. 1.27.

4) 37 C.F.R. 1.29.

2

Patent Applications by SMEs and Fee Reduction for SMEs

2.1. Patent Applications by SMEs

2.1.1. EPO

Distribution of the applications received from European resident applicants was as follows.

Table 4. Proportion of patent applications by company size in Europe (Last 3 years)⁵⁾

Size \ Year	2021	2022	2023
SMEs & individual inventors	20%	20%	23%
Universities & public research organisations	5%	7%	8%
Large enterprises	75%	73%	69%

2.1.2. JPO

The number of patent applications filed by SMEs in Japan (2019-2022) was as follows.

Table 5. Patent applications by SMEs in Japan⁶⁾

Size \ Year	2019	2020	2021	2022	2023	Growth Rate(CAGR)
SMEs	39,597	39,789	37,875	39,648	40,221	0.4%
Others	205,775	187,559	184,577	179,165	188,715	-2.1%

5) This breakdown is based on a large representative sample of patent applications filed with the EPO in 2023 by applicants located in the 39 member states of the European Patent Organisation.

6) JPO data are the number of patent applications filed by resident applicants in Japan.

2.1.3. KIPO

In 2023, the number of patent filings increased by 3.5 percent to 65,422. The number accounts for about 26.9% of all applications.

Table 6. Patent applications by company size (Last 5 years)

Size \ Year	2019	2020	2021	2022	2023	Growth Rate(PY)
Large	39,085	39,745	37,317	44,116	48,392	9.7%
Mid	9,747	9,445	13,372	10,843	10,842	0.0%
SMEs	50,891	57,891	62,884	63,238	65,422	3.5%

2.1.4. CNIPA

By the end of 2023, national high-tech enterprises and technology-based small and medium-sized enterprises possessed 2,134 thousand valid patents, marked a year-on-year increase of 24.2%, accounting for 73.4% of the total number of valid patents own by domestic enterprises.

2.1.5. USPTO

Table 7. Patents Issued by USPTO FY 2019-2023 ⁷⁾

Year:	2019	2020	2021	2022	2023
Patents Issued	336,846	360,784	338,334	318,496	310,245
Percentage Micro Entity	2.49%	2.50%	2.48%	2.48%	2.40%
U.S. Origin	4.22%	4.20%	4.23%	4.25%	3.88%
Foreign Origin	0.94%	1.01%	1.01%	1.09%	1.11%
Percentage Small Entity	19.94%	19.98%	20.76%	20.91%	21.56%
U.S. Origin	25.82%	25.92%	27.02%	27.48%	27.68%
Foreign Origin	14.67%	14.74%	15.42%	15.74%	16.22%

7) USPTO Statistics obtained from USPTO Annual Reports, <https://www.uspto.gov/about-us/performance-and-planning/uspto-annual-reports>

2.2. Fee Reduction for SMEs

2.2.1. EPO

Several kinds of fee reductions are available for (some of) the following six categories of small applicants:

Figure 1. Six categories of applicants entitled to fee reductions



Eligible Applicants	Reduced rate/ Note
five categories, i.e. microenterprises, natural persons, Non-Profit Organisations, Public Research Organisations, universities	<ul style="list-style-type: none"> • Fee reductions for micro-entities including microenterprises (since 2024) <ul style="list-style-type: none"> - Limited to unexperienced users: up to 5 applications with the EPO within past 5 years - Microenterprise definition: <ol style="list-style-type: none"> (1) less than 10 full-time employees (2) less than EUR 2m annual balance sheet and/or EUR 2m annual turnover and (3) not a subsidiary of a large enterprise - SMEs larger than microenterprises do not qualify - 30% reduction applies to filing, search, examination, designation, grant and renewal fees for applications - PCT applications in the international phase do not qualify; only eligible as of entry into the European phase - Legal basis: R. 7a(3) EPC
natural persons from <ul style="list-style-type: none"> - low-income states and lower-middle-income states (e.g. IN, VN, EG) - countries with validation agreements with the EPO (currently MA, MD, TN, KH, GE) 	<ul style="list-style-type: none"> • EPO-WIPO agreement in relation to functioning of EPO as ISA and IPEA (since 2000) <ul style="list-style-type: none"> - 75% reduction applies to international search and international preliminary examination fees⁸⁾ - Legal basis: Annex D, part II (4) EPO-WIPO agreement

8) There is a retroactive fee reduction of the international search fee under specific conditions: 1) micro-entity, 2) cap condition of not more than five applications in five years 3) international search done by the EPO, 4) followed by entry into European phase. And under the same conditions except that the international search was done by another ISA, the EPO carries out a supplementary search for a reduced fee.

Eligible Applicants	Reduced rate/ Note
six categories, i.e. SMEs, microenterprises, natural persons, Non-Profit Organisations, Public Research Organisations, universities	<ul style="list-style-type: none"> • Working Agreements on Search <ul style="list-style-type: none"> - EPO carries out search on behalf of 18 participating EPC contracting states against a "national search fee" - 80% reduction applies to this national search fee, up to 400 applications per country and year - Legal basis: Decisions of the Administrative Council of the European Patent Organisation and bilateral working agreements
all six categories, SMEs, microenterprises, natural persons, Non-Profit Organisations, Public Research Organisations, universities	<ul style="list-style-type: none"> • Language-related reductions to support certain applicants (since 1978, revised 2014) <ul style="list-style-type: none"> - Geographical/language restrictions apply: <ul style="list-style-type: none"> - residence/principal place of business in a contracting state having an official language other than English, French and German, i.e. the EPO's official languages • 30% reduction applies to filing (EP direct) and examination fee, Legal basis: R. 7a(1) EPC, Art. 14(1) Rules relating to Fees
all six categories, SMEs, microenterprises, natural persons, Non-Profit Organisations, Public Research Organisations, universities	<ul style="list-style-type: none"> • Reduction of Appeal Fee (since 2018) <ul style="list-style-type: none"> - Approx. 30% reduction applies to appeal fee - Legal basis: Art. 2(1) no. 11 Rules relating to Fees
all six categories, SMEs, microenterprises, natural persons, Non-Profit Organisations, Public Research Organisations, universities	<ul style="list-style-type: none"> • Translation Compensation for Unitary Patents (since 2023) <ul style="list-style-type: none"> - Geographical/language restrictions apply: <ul style="list-style-type: none"> - Patent application filed in official EU Member state language other than English, French or German - Lump sum compensation of EUR 500 applies post grant for Unitary Patents - Legal basis: Art. 5 Council Regulation (EU) No. 1260/2012; Rule 11 Rules relating to Unitary Patent Protection, Art. 4(1) Rules relating to Fees for Unitary Patent Protection

2.2.2. JPO

All patent applications with requests for examination or international applications filed on or after April 1, 2019 are eligible for the patent fee reduction and exemption program.⁹⁾

9) See the JPO's Patent Fee Reduction/Exemption Program Leaflet (English). https://www.jpo.go.jp/system/process/tesuryo/genmen/genmen20190401/document/index/leaflet_e.pdf

Eligible Applicants	Reduced rate	
	Examination fees / Patent fees for year 1 to year 10	Fees for PCT International Application
Small & Medium Enterprises (SMEs)	Reduced to 1/2 ¹⁰⁾	
Corporation tax exempt SMEs	Reduced to 1/2	No Reduction
R&D-oriented SMEs	Reduced to 1/2 ¹⁰⁾	
Micro Enterprises / Small & Medium Startup Enterprises	Reduced to 1/3 ¹⁰⁾	
SMEs approved based on Act on Special Measures for the Reconstruction and Revitalization of Fukushima	Reduced to 1/4 ¹⁰⁾	
University researchers, Universities, Colleges of technology, TLO, Research and Development Incorporated Administrative Agencies, Entities that have established a public research institute, Local Research and Development Incorporated Administrative Agencies	Reduced to 1/2 ¹⁰⁾	
Recipients of public assistance, Municipal tax exempt individuals	Examination fees/Patent fees for year 1 to 3: Exempt Patent fees for year 4 to 10: Reduced to 1/2	No Reduction
Income tax exempt individuals, Enterprise tax exempt individuals	Reduced to 1/2	No Reduction

2.2.3. KIPO

Eligible Applicants	Reduced rate
SMEs under Framework Act on Small and Medium Enterprises get	70% off with Filing fee, Examination fee, Registration fee for 3 years; and 50% off with Maintenance fee beyond 4 years
Joint Research with SMEs whose application for achievements derived from joint research with a SME gets	50% off with Filing fee, Examination fee, Registration fee for 3 years
SMEs in research and development of medical service under Special Act on the Designation and Support of High-tech Medical Complexes get	50% off with Filing fee, Examination fee, Registration fee for 3 years
SMEs who started their businesses with in 3 years get	70% off with Accelerated Examination Fee

10) JPO covers a part of the fee for WIPO of the international application fees.

2.2.4. CNIPA

According to the Measures for the Reduction of Patent Fees implemented in September 2016 and subsequent notices issued by the CNIPA:

- (a) A patent applicant or patentee may request to reduce the payment of the following patent fees:
- (b) Where a patent applicant or patentee meets any of the following conditions, he or it may apply to the CNIPA for reducing the payment of the aforesaid fees.

Eligible Applicants/ Patentee	Subject for Reduction	Reduced Rate
The patent applicant or patentee is an individual with the average monthly income of less than CNY 5,000 (or the average annual income of less than CNY 60,000) in the previous year	Application fee (excluding the printing fee for publication and the additional fee for filing an application) The substantive examination fee of a patent application for invention Patent annuities (within 10 years from the year of granting of a patent right) Review fee	Where a patent applicant or patentee is an individual or entity, he or it may reduce 85% of relevant payment. Where two or more individuals or entities serve as a joint applicant or patentee, they may reduce 70% of relevant payment.
The patent applicant or patentee is an enterprise with the taxable income of less than CNY 1,000,000 in the previous year		
The patent applicant or patentee is a public institution, social group, or non-profit scientific research institution		
Where two or more individuals or entities serve as a joint applicant or patentee, they shall separately comply with the above-mentioned provisions.		

2.2.5. USPTO

There are two types of patent fee discounts at the USPTO – small entity status and micro entity status. Because only “small business concerns” as defined by

the U.S. Small Business Administration may qualify as a small entity, there is no discount for larger business concerns including those that might be described as medium-sized.

Eligible Applicants	Reduced rate
small entities	60% of reduction on fees for filing, searching, examining, issuing, appealing, and maintaining patent applications and patents
micro entities	80% of reduction on fees for filing, searching, examining, issuing, appealing, and maintaining patent applications and patents

The full fee schedule is available online.

3

IP Policy for Supporting SMEs

3.1. EPO

3.1.1. Creation of IP

Being key actors of the innovation ecosystem, a major goal of the EPO, set out in the recently approved Strategic Plan 2028, is to support the development and growth of SMEs by helping them obtain sound patent protection, enabling them to commercialise their intellectual assets throughout Europe.

Small and medium-sized enterprises (SMEs) form the backbone of the European economy. In the EU for instance, they constitute 99% of businesses, employing two out of every three employees and producing 57% of the EU's GDP. Studies by the EPO have found that in high-tech industries, the likelihood of high growth is 110% higher for SMEs that have filed one or more European patent applications and that it is 172% higher in low-tech industries, where a patent filing is a rarer event.¹¹⁾ A recent study found that startups holding European IP rights are up to ten times more likely to secure investment. This is a significant number and goes to show that IP rights are valuable assets that potential investors increasingly see as evidence of a promising business model.¹²⁾

3.1.2. Protection of IP

The EPO introduced a number of important fee changes to support SMEs that came into force on 1 April 2024.

This package of fee measures introduced 30% fee reductions for micro-entities. The general EPO fee policies adopted to foster use of the European Patent system by SMEs and micro-entities are set out in section 2 above.

The launch of the Unitary Patent system in June 2023 is of major importance to provide broader patent protection at a lower cost, it simplifies patent protection and therefore makes Europe more attractive to innovators and investors. The benefits of the new system are particularly attractive for small companies.

For patentees resident in EPC contracting states, Unitary Patent protection has been sought by 31.3%. For the categories small entities (incl. SMEs) and micro-entities (mainly micro-enterprises and individuals) the uptake rates were 62.3% and 59.9%, respectively.

3.1.3. Utilization of IP

To enable SMEs and other innovators to harness the potential of patents and boost their business, the EPO is doing more than ever before to help deep tech startups and SMEs. The EPO established the Observatory on Patents and Technology in October 2023 to support all actors in the innovation ecosystem with data, information and knowledge to be able to navigate the innovation landscape successfully, with small business community being a key stakeholder in its activities.

11) https://link.epo.org/web/high_growth_firms_study_en.pdf

12) <https://www.epo.org/en/news-events/news/new-study-reveals-how-ip-helps-startups-raise-finance>

The new Observatory is well aware of the importance of patents for deep tech innovation, not only as a means of protecting investments in new technologies, but also as way to signal potential value to prospective investors. The Deep Tech Finder was developed precisely for this purpose. By enabling other companies and researchers active in deep tech, as well as investors, to search for European startups filing patent applications with the EPO, this new tool sheds light on ventures that have the potential to bring new technology to market on a European scale. By harnessing the EPO's expertise in patent information, the tool also helps potential investors and business partners to find out what inventions are being developed in specific technology fields and assess their levels of protection by European patents. The EPO also offers smaller entities a set of well-

designed and easy-to-access training modules for SMEs via its European Patent Academy.

3.1.4. Others

Europe's network of more than 300 Patent Information Centres (the "PATLIB Network") makes an important contribution to innovation support in Europe. PATLIB centres are institutionally linked to national patent offices and play an important role in supporting national efforts to raise awareness of the patent system at local level, contributing to better understanding and use of the patent system, and providing patent information services to users to enable informed decisions on patenting and other IP strategies.

3.2. JPO

3.2.1. Creation of IP

Cooperation Statement in the field of support for SMEs, Start-ups and Entrepreneurs between the JPO and WIPO¹³⁾

On Wednesday, February 21, 2024, Commissioner Hamano of the JPO signed the "Cooperation Statement in the field of support for Small and Medium-sized Enterprises (SMEs), Start-ups, and Entrepreneurs" through the Funds-in-Trust Japan Industrial Property Global (FIT Japan IP Global) together with Daren Tang, Director General of WIPO, who was visiting Japan.

In the cooperation statement, WIPO and the JPO agreed to strengthen cooperation in supporting SMEs, start-ups, and entrepreneurs in developing countries by sharing and utilizing the JPO's experience in IP start-up support programs in the field of intellectual property

through the FIT Japan IP Global, through which Japan makes voluntary contributions to WIPO.

This is the first time that WIPO has signed a statement of cooperation with its member countries to provide support for SMEs and startups on a global scale through voluntary contributions. By June 27, 2026, which is "Micro-, Small and Medium-sized Enterprises Day" designated by the United Nations, the program aims to support 627 SMEs, start-ups, and entrepreneurs, and ultimately aims to support a total of 1,000 companies.

IP Acceleration program for Startups (IPAS)

- Mainly aimed at early-stage startups, the National Center for Industrial Property Information and Training (INPIT)¹⁴⁾ dispatches IP mentoring teams to provide support for the development of IP strategies.

13) <https://www.jpo.go.jp/e/news/ugoki/202402/2024022202.html>

14) An independent administrative agency that, under the supervision of the JPO, provides various services, such as information on industrial property rights, information and support through consultation desks, support for the strategic utilization of IP, and development of human resources specializing in IP. The IPAS was conducted by the JPO from FY2018 to FY2023 and has been transferred to the INPIT since FY2024.

- IP mentoring teams are comprised of IP experts, such as patent attorneys, and business experts, such as venture capitalists. It is hoped to develop experts who understand both startup management and IP by building teams.
- Forums are held to present achievements based on these results and to provide networking opportunities with people involved in supporting start-ups, etc.
- A total of 19 companies were supported during FY2023.

3.2.2. Protection of IP

IP Comprehensive Helpdesks

The INPIT has established IP Comprehensive Helpdesks in every prefecture of Japan, which offer free-of-charge consultation services on any intellectual property-related issue.

The IP Comprehensive Helpdesks deal with any problems regarding acquisition of intellectual property rights, protection of information as trade secrets, or usage of intellectual properties to develop clients' business. Experienced IP experts, including patent attorneys, answer clients' questions concerning intellectual property. The IP Comprehensive Helpdesks also cooperate with the specialized Helpdesks of INPIT that provide IP support services related to trade secret protection, international business, start-ups, etc., and other organizations such as local governments and SME SUPPORT JAPAN.

Seminars of IP rights systems

The JPO offers seminars on IP rights systems for beginners and practitioners, which are delivered online using INPIT's IP e-learning tool "IP ePlat"¹⁵⁾ and vary in content according to the level of knowledge and experience of the participants.

Industrial Property Right Specialists for SMEs

The JPO employs industrial property right specialists who provide comprehensive support to SMEs. They

serve as lecturers at various seminars for SMEs and local government staff, and visit SMEs to provide individual counseling in order to raise awareness of the IP system, as well as give information on the types of support available, and advise regarding ways to develop human resources.

Japan Platform for Patent Information (J-Platpat)¹⁶⁾

J-PlatPat is a patent information online service with user-friendly functions to search for official gazettes of patents, utility models, designs, and trademarks, and to check history information. J-PlatPat can be used for prior art searches, research on trends in technological development of other companies, freedom to operate searches, etc.

Overseas rights support project

This project is for subsidizing part of the costs incurred by SMEs, and other entities planning to expand their business overseas, when filing applications to obtain rights for inventions, utility models, designs or trademarks overseas (application procedures), responding to notices of reasons for refusal issued by foreign patent offices for patent applications (interim responses) and requesting patent application examination (requests for examination).

3.2.3. Utilization of IP

Joint Declaration for the Establishment of the IP Business Management Support Network

In March 2023, three core entities for IP business management support, namely, the JPO, the INPIT and the Japan Patent Attorneys Association (JPAA), along with the Japan Chamber of Commerce and Industry (JCCI) made a joint declaration for establishing a four-party network called the "IP business management Support Network".

Furthermore, in December 2024, the Small and Medium

15) https://ipeplat.inpit.go.jp/Elearning/View/Login/P_login.aspx

16) <https://www.j-platpat.inpit.go.jp/>

Enterprise Agency joined this network, expanding its reach.

Through this network, the JPO will strengthen and enhance support for regional SMEs and startups and help increase the "earning power" of the regions.

Aiming to create a one-stop shop providing IP management support services of same standards anywhere in Japan, the five parties are working closely and conducting joint workshops for the support personnel in many areas across the country.

Support for the Promotion and Implementation of Management exploiting IP

The JPO is promoting and supporting the implementation of management exploiting IP by utilizing IP landscapes. IP ePlat publishes online seminars on IP landscapes.

- In April 2023, the JPO published case studies presenting communication issues between management and the IP division, as well as the items that need to be addressed to exploit IP for business.
- In FY2023, an expert team comprised mainly of consultants in business management and IP was dispatched to seven companies. Through supporting IP strategy creation and discussing the effective disclosure of such strategies, the team conducted onsite studies on matters necessary for IP exploitation in companies. The JPO is also studying specific

methods used in the IP landscape.

IP finance promotion project

The JPO provides regional financial institutions with IP Business Evaluation Reports, which evaluate the overall business of SMEs utilizing IP, and IP Business Proposals, which outline solutions to management issues based on the intellectual property of SMEs.

The JPO's initiatives for IP finance are introduced on the IP Finance Portal Site.¹⁷⁾

3.2.4. Others

JPO Design-Driven Management Practice - Initiatives for Supporting SMEs

The JPO Design-Driven Management Project is working with relevant JPO departments and the Regional Bureaus of Economy, Trade and Industry to provide support to SMEs.

Since FY2020, it has promoted design-driven management by regional SMEs through case studies and information dissemination. In FY2022, it considered the JPO's new SME support measures based on design thinking, and proposed a trademark system awareness raising campaign for those indifferent to IP, etc.

3.3. KIPO

3.3.1 Creation of IP

Customized Support for IP-based R&D Strategies (KIPO)

IP-based R&D (IP-R&D) refers to the strategic integration of IP within the research and development (R&D) process that focuses on fostering innovation and ensuring that R&D outputs are protected and leveraged effectively through IP rights. In other words, patent

information is analyzed to identify the best direction for R&D projects to more effectively overcome patent barriers and quickly obtain promising patents where there exist gaps of patented technology. KIPO provides customized IP-R&D strategies to SMEs, mid-market enterprises, universities, and public research institutions to develop strategic technologies and secure original and core patents.

17) "IP Finance Portal Site" (Japanese). <https://chizai-kinyu.go.jp/>

Table 8. IP-based SME support policy in Republic of Korea

Policies/ Initiatives (Beneficiaries)	Support Details
"IP Didimdol" (Aspiring Entrepreneurs and Individuals)	Support for actualizing and securing rights for excellent ideas discovered at Regional IP Centers, IP Startup Zones, and the Creative Economy Innovation Centers.
IP-based Support for Overseas Expansion (SMEs (planning to export))	Comprehensive support of IP services, including support for acquiring IP rights abroad for promising SMEs with high export growth potential.
Standard Essential Patents Creation Support (Universities, Public Institutions, SMEs, and Midsized Companies)	Support for strategies to secure standard essential patents through the entire process of R&D and standardization
IP Data Gift Policy (Aspiring Entrepreneurs and Small Enterprises within 7 years of startup)	Free provision of IP data necessary for product development in the field of IP information services for up to 5 years
"IP Direct SME Support" (SMEs)	Consultation and discovery of urgent SME IP issues through regional IP centers throughout the country, and resolution of these difficulties through IP services support.
IP Capability Strengthening for Small Businesses (Small Business Owners)	Support for securing rights (i.e., trademarks and recipes) owned by small business owners, and operation of educational and counseling programs

3.3.2. Protection of IP

Overseas IP Centers (KIPO)

The Overseas IP Centers will enable SMEs to receive IP counseling and legal advice from the Centers' experts and local law firms. KIPO operates currently 10 Overseas IP Centers; and Overseas IP Centers extend IP-related support services to SMEs operating in neighboring countries as well as in the country where they are based, and now offers supports in 40 countries.

Protection of Trade Secrets through Customized

Consultations (KIPO)

Recognizing the vulnerability of small and medium-sized enterprises (SMEs) and universities/public research institutes in IP protection, KIPO introduced "IP-MIX Strategy Consulting" and expanded customized legal and expert consultations to prevent the misappropriation of technologies and trade secrets in 2023.

Technology Protection Policy Insurance Support Program (Ministry of SMEs and Startups)

Supports legal expenses incurred in technology disputes of SMEs.

Table 9. Support for IP protection for SMEs in Republic of Korea

Policies/ Initiatives (Beneficiaries)	Support Details
Trade Secret Protection Centers (Universities, Public Organizations, SMEs)	Provision of trade secret education, distribution of trade secret management systems, trade secret protection consulting, legal advice for dispute and leakage, digital forensics support, trade secret verification services, etc.
Bad Faith Trademark Filings & Counterfeit Goods Response Support (SMEs/Midsized Companies)	Support for monitoring bad faith trademark filings abroad and responding to the distribution of counterfeit products online overseas.
Patent/K-Brand Dispute Response Strategies Support (SMEs/Midsized Companies (planning to export))	Provision of customized protection strategies for each stage of international IP disputes
Early Detection of Patent Dispute Risks Support SMEs in the field of high-tech industry)	Support for monitoring of patents with potential risks and disputes and providing patent dispute prevention training and practice.

3.3.3. Utilization of IP

Expansion of Designated Institutes for IP Valuation (KIPO)

IP valuation refers to the assessment of the economic value of IP, which is essential for providing financial services based on IP or “IP finance” (e.g., IP collateralized loans, IP mutual aid, etc.). Valuation is carried out by a KIPO-designated institute specialized in evaluating the technical and business merits of inventions, using methods such as appraisal, grading, or scoring. As the IP finance market grows, there has been a call to increase the number of institutes capable of

evaluating inventions. KIPO has begun the process of accepting applications from institutions, conducting on-site inspections, and organizing a designation review committee. As a result, 11 additional private evaluation institutes were designated as invention evaluation institutes. As of 2023, there are a total of 33 designated invention evaluation institutions (8 public and 25 private institutions) in the ROK. IP valuation by these institutes can be utilized to obtain “IP guarantee certificates”, “IP collateral loans from banks”, “analysis of business feasibility”, and “evaluation of damages from IP-related disputes”.

Table 10. Support for utilizing IP of SMEs in Republic of Korea

Policies/ Initiatives (Beneficiaries)	Support Details
Transaction and Commercialization Support of Carbon Neutrality Ideas (SMEs in the field of carbon neutrality)	Identify and refine creative public ideas in the carbon neutrality field through idea platform 'Idearo', and support companies with carbon neutrality IP strategies and product development
Priority Purchase Recommendation System for High-quality Inventions Individuals (SMEs)	Support for entry into market through the KIPO Commissioner's recommendation of excellent invention products that apply patent technologies to national institutions, local governments, and public institutions.
IP Mutual Aid (SMEs/Midsized Companies)	Distribution and mitigation of the burden of costs related to IP among SMEs and midsized companies through a mutual aid system based on mutual assistance.
Public-Private Partnership IP Strategy Support (Aspiring Entrepreneurs and Small Enterprises (within 7 years of startup))	Investment in startups and overseeing of corporate IP by private entities, and support for the commercialization of IP products through business packages by the government.
IP Capability Strengthening for Small Businesses (Small Business Owners)	Support for securing rights (i.e., trademarks and recipes) owned by small business owners, and operation of educational and counseling programs
IP-C&D Strategy Support (SMEs)	Support for SMEs includes developing innovative products using IP, commercialization consulting, and market strategy assistance.
IP Transaction Support (Individuals, SMEs, etc.)	Brokerage services by patent transaction specialists for individuals and SMEs wishing to introduce patent technology, and support for enhancing the capabilities of private IP trading companies for independent operation

3.3.4. Others

Giving interagency support to start business based on IP or commercialize IP

KIPO consults on developing IP strategies and business plans for patented products, and helps find investors and markets. Other governments help SMEs with making prototypes, securing investments, providing business training, and offering office spaces, etc.

Intellectual Property Human Resources Development Vision 2030 (2nd Basic Invention Education Plan) (KIPO)

KIPO, in collaboration with relevant ministries, has

established four major strategies and 12 key initiatives to foster competent personnel who comply with the image of new competent personnel, including: i) (K-12 and youth) regularizing invention education by focusing on non-curricular activities, ii) (universities and researchers) universalizing education to foster IP convergence capabilities, iii) (companies and citizens) lifelong education to acquire IP literacy and iv) (cultivation-based) cooperative education using various educational platforms.

Educations and consulting

Table 11. IP educations and consulting for SMEs in Republic of Korea

Policies/ Initiatives (Beneficiaries)	Support Details
Employee Invention System Consultation (SMEs/Mid-sized Companies)	Deployment of employee invention experts (i.e., patent attorneys) to companies to newly operate or those facing difficulties in operating an employee invention compensation system for supporting regulation establishment and resolution of operational difficulties.
Patent Support Desks (SMEs)	Provision of IP-related consultation services by patent attorneys and IP experts at regional IP centers, IP Startup Zones, and Creative Economy Innovation Centers
Public Patent Attorney Counseling Center (Small Businesses, Disabled Individuals, Basic Livelihood Security Recipients, and Other Socially Vulnerable Groups)	Provision of free Public patent attorneys services, including patent-related consultation, document preparation, and direct representation in administrative proceedings or revocation lawsuits for socially disadvantaged people.

3.4. CNIPA

3.4.1. Creation of IP

The CNIPA has made continuous efforts to support cultivation of national IP advantage demonstration enterprises. Enterprise intellectual property compliance management system - Requirements, a national standard, was revised and issued to help SMEs establish and improve their intellectual property compliance management system. A National Patent Navigation Comprehensive Services Platform was built under the guidance of CNIPA, providing references for enterprises

to optimize their patent landscape.

3.4.2. Protection of IP

The construction of the mechanism of fast-track and coordinated IP protection was promoted. A total of 15 protection centers and fast-track IPR enforcement centers were newly approved and established. As of the end of 2023, there were 70 national IP protection centers and 42 fast-track IPR enforcement centers. With

the support of the IP protection centers and the fast-track IPR enforcement centers, CNIPA has continued to promote the pilot program on expedited processing of IP disputes, which has significantly shortened the dispute processing cycle. In 2023, these centers handled more than 121 thousand IP protection and IPR enforcement cases.

3.4.3. Utilization of IP

CNIPA continued to promote the commercialization and utilization of IP to effectively empower innovative development of the economy. CNIPA, jointly with relevant departments, formulated the Work Plan for Revitalizing Existing Patents in Universities and Research Institutions, as well as the Plan to Promote the Growth of Small and Medium-sized Enterprises through Patent Industrialization, aiming at promoting the transformation and utilization of innovation outcomes of SMEs and improving their capacity of patent industrialization.

3.4.4. Service of IP

The effectiveness of financial services was continuously improved. In 2023, the patent and trademark pledge financing reached 853.99 billion RMB in China, a year-

on-year increase of 75.4%, and patent and trademark pledge loans with a financing amount of less than 10 million RMB benefited about 26 thousand enterprises.

The service of patent information was continuously improved. 59 types of basic IPR data have been opened to the public. The "1+5+N" information public service product portfolio takes the national IP public service network as a hub, with the patent search and analysis system, the design patent search public service system, the patent information service platform for key industries, the public service system for IP data resources and the EU trademark inquiry system as main carriers, in coordination with the patent thematic database. The national IP public service network received 5.05 million visits in 2023, with an average daily visit of 13.8 thousand. More than 10 special public lectures on topics such as "capacity building of SMEs through utilization of patent information" have been conducted for the public, introducing innovative methods, typical cases and useful experiences concerning the use of patent information.

The network of IP public services was continuously improved. A total of 50 TISC (Technology and Innovation Support Centers) were newly established in China, with a total of 151. There were 41 new national IP information public service branch centers. As of the end of 2023, the number of major national-level IP service branch centers increased to 423.

3.5. USPTO

3.5.1. Creation of IP

The USPTO has a number of assistance programs designed to help SMEs acquire IP rights. SMEs typically

face resource constraints¹⁸⁾ and are the intended beneficiary of these assistance programs. These programs and initiatives aim to foster a truly innovative environment.

18) Farre-Mensa, The Bright Side of Patents, National Bureau of Economic Research, Working Paper 21959, at https://www.nber.org/system/files/working_papers/w21959/w21959.pdf.

The USPTO is improving the way it communicates with entrepreneurs and innovators to better support them, including by limiting the use of technical terminology in communications and by creating a welcoming environment for new participants.

The USPTO helps facilitate access to free legal services for applicants who meet certain criteria through our partnership with the Patent Pro Bono Program, a nationwide network of independently operated regional programs that match volunteer patent professionals with qualified inventors and small businesses. Yearly inquiry into the program has increased, indicating greater awareness of and interest in the program.¹⁹⁾

The USPTO offers discounts for certain patent filing fees to patent applicants who qualify for “small” or “micro entity” status.

Additionally, the Law School Clinic Certification Program, consisting of over 60 participating law school clinics, provides free legal services to eligible inventors, entrepreneurs, and small businesses.

The USPTO’s two appeal boards also promote access to free legal representation by qualified parties through the PTAB Pro Bono Program and the TTAB Pro Bono Clearinghouse Program.

The Pro Se Assistance Program guides applicants who navigate the IP system without an attorney. Without providing legal advice, the Pro Se Assistance Program guides and educates pro se applicants through the laws and regulations of the patent examination system. Independent inventors and small businesses, are the main beneficiaries of this program.

USPTO’s IP Identifier tool helps potential innovators identify which of their creative ideas might be intellectual property assets and how to protect them by using the USPTO Intellectual Property (IP) Identifier.

The Inventors Assistance Center (IAC) provides patent assistance and information to the public.

In addition to the above assistance programs, the USPTO hosts an SME Resource Webpage containing links to tools and information that can be used to identify and value IP, start a business, or commercialize and protect IP.

Additional information on www.USPTO.gov is geared toward educating the public on seeking patents. The information can be accessed from the USPTO’s Patent Basics page.

3.5.2. Protection of IP

The USPTO’s IP Attachés stationed around the world assist U.S. stakeholders to protect and enforce IP rights abroad. IP Attachés are experts in the laws of the territories where they work, and have been instrumental in protecting IP in foreign markets. Attachés have assisted U.S. companies in addressing counterfeiting, digital piracy, and unauthorized use of IP; they have also facilitated cooperation between U.S. companies and local organizations.

The United States has launched an interagency campaign to protect SMEs from counterfeit products. The STOPfakes.gov website host information and links to resources that start-ups, entrepreneurs, small and medium-sized businesses, and independent inventors can use to enforce their IP rights.

A related policy consideration is how to fund the disposal of counterfeit products.

A series of IP Rights Toolkits published on www.USPTO.gov highlight the differences in IP rights among countries and educate IP owners on how to protect

19) Unleashing American Innovators Act of 2022, Study of the Patent Pro Bono Programs, USPTO, December 2023, https://www.uspto.gov/sites/default/files/documents/FINAL_SignedUSPTOStudyUAIAPatentProBonoProgram.pdf.

20) Farre-Mensa, The Bright Side of Patents, National Bureau of Economic Research, Working Paper 21959, at https://www.nber.org/system/files/working_papers/w21959/w21959.pdf.

their IP in foreign markets. These toolkits describe the IP acquisition and enforcement process in different countries. Two toolkits have been published and several more are in development.

3.5.3. Utilization of IP

The USPTO launched its Open Data Portal <https://data.uspto.gov/home> which is publicly available USPTO data that is structured in a way that enables the data to be fully discoverable and usable by end users. It can be freely used, reused and redistributed by anyone.

The Patents for Humanity award competition recognizes innovators of revolutionary inventions that address global humanitarian challenges. Public recognition of these works engenders business interest and assists inventors in finding unique and creative ways to reach all markets.

3.5.4. Others

The USPTO has established regional offices to extend intellectual property assistance to SMEs beyond headquarters in Alexandria, Virginia. Regional Offices tailor outreach, training, and services to the needs of SMEs in their region.

To promote the efficient delivery of IP rights, especially for SMEs, the USPTO has established Patent and Trademark Resource Centers (PTRCs) throughout the United States. PTRCs are a network of libraries designated by the USPTO, that offer IP assistance to the public. PTRCs are staffed by experts trained in navigating the IP ecosystem. Experts educate innovators and IP practitioners on using USPTO search tools and navigating the patent application and trademark registration process.

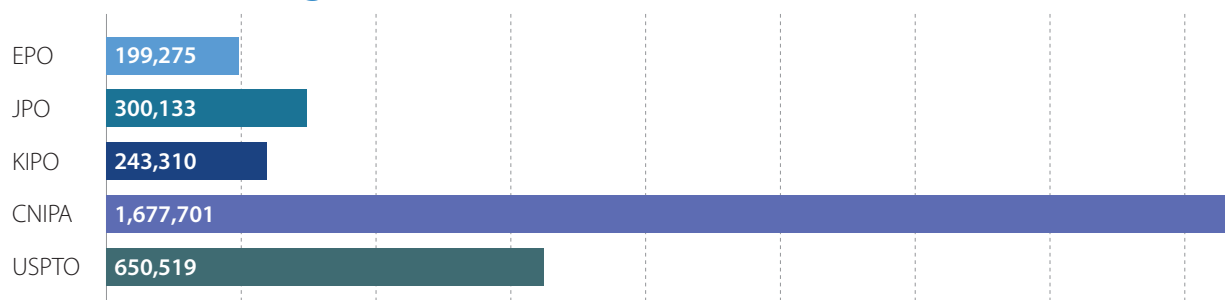
The USPTO also participates in broader government initiatives and with its international counterparts to develop webinars or other tools to help SMEs. For example, through the Trade and Technology Council, the USPTO and the European Union to provide information about protecting IP both in the US and in Europe to SMEs.

The Trade and Technology Council (TTC) Working Group 9, “Promoting SME Access To and Use of Digital Tools,” is focused on promoting the digital tools that enable SMEs to innovate, grow, and compete. Beyond training, education gaps, and market access barriers, SMEs face challenges regarding access to technologies, data, and finance. This Working Group is committed to ensuring that SMEs in the European Union and the United States have access to digital tools and technologies to spur their growth, innovation, and competitiveness. TTC9 “Presentation of Recommendations from the U.S.-EU Trade & Technology Council Working Group on Promoting SME Access to and Use of Digital Tools” Report was released on April 4. (https://www.trade.gov/sites/default/files/2024-02/TTC_WG9_Recommendations.pdf).

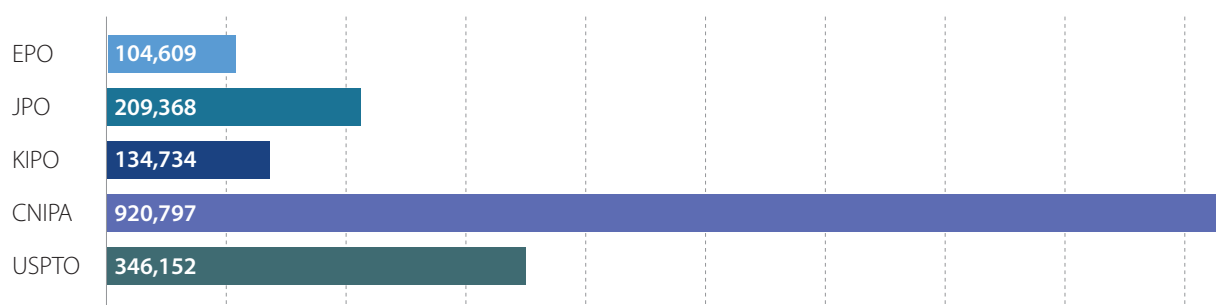
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IP5 Offices' Statistics from 2023

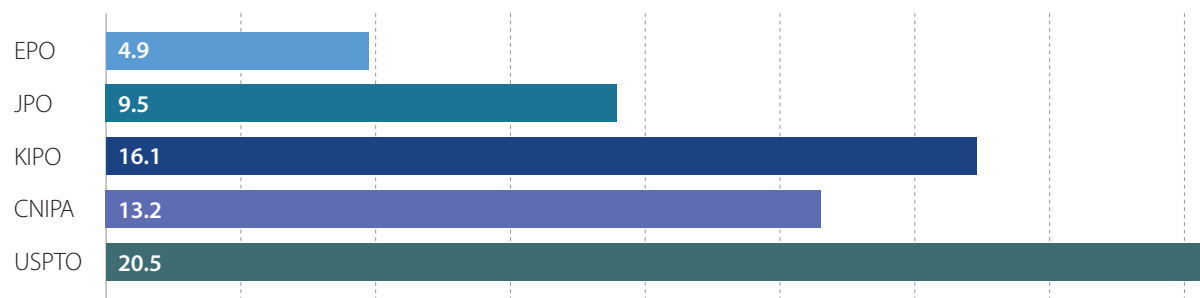
4.1. Patent Filings



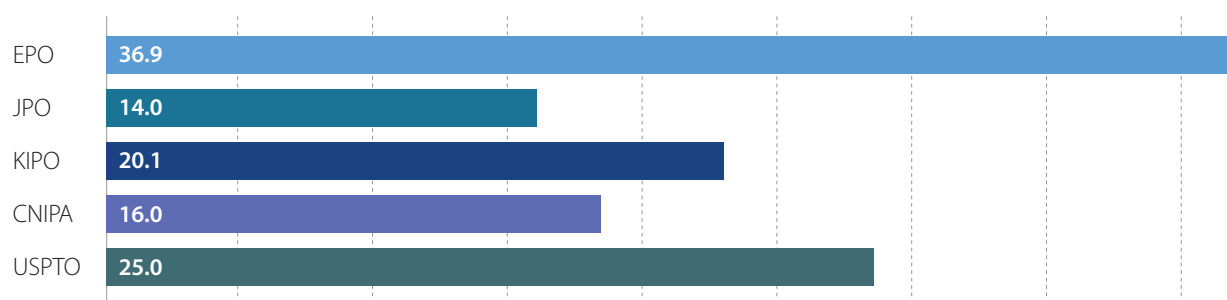
4.2. Issued Patents



4.3. First Action Pendency (months)



4.4. Total Pendency (months)



5

IP5 Offices' Key Developments in 2023

5.1. EPO

• Strategic Plan 2028

The Administrative Council unanimously approved the Office's new Strategic Plan (SP2028) in March 2024. SP2028 will guide the Office towards building a more sustainable European Patent Office. The plan is built upon five drivers (People; Technologies; Quality products and services; Partnerships; Financial sustainability) and will use high-level Key Performance Indicators (KPIs) to provide all stakeholders with a clear understanding of the progress made.

• Unitary Patent

The Unitary Patent system has seen a successful start, completing Europe's single market for technology. Its launch was a milestone in the history of the European patent system. Since June 2023, over 48,000 requests for unitary effect have been filed and the EPO has registered nearly 47,500 Unitary Patents. Almost one in four granted European patents has been converted into a Unitary Patent. There was a particularly strong uptake of the new system in Europe, with 64.1% of the proprietors of Unitary Patents based in the EPO's 39 contracting states. Proprietors based in the US accounted for 15.1%, China for 5.4%, Japan and the Republic of Korea for 3.7% each.

• Observatory on Patents and Technology

The European Patent Office opened its Observatory on Patents and Technology in October 2023. As a first port of call for anyone interested in the future of innovation, the Observatory quantifies and explores trends and challenges throughout the innovation ecosystem. It also provides industry, innovators, investors, policymakers and in general all actors of

the innovation ecosystem with reliable evidence for informed decision-making. Observatory activities play a pivotal role in assisting SMEs and smaller entities in accessing the patent system. By leveraging digital tools like the Deep Tech Finder and Smart Search Platforms, it enables SMEs to navigate databases tailored to their specific needs.

• Economic Impact Studies

Our Chief Economist Unit has conducted joint studies examining the impact of patent protection on funding opportunities for smaller entities. <https://www.epo.org/en/news-events/press-centre/press-release/2023/945253>.

• Patent Intelligence Department

Recognising the challenges SMEs face against larger corporations with extensive IP resources, our Patent Intelligence Unit is dedicated to bridging this gap. Through the PATLIB network, over 320 centres spread over the EPOrg countries act as regional hubs of innovation, providing IP advice and support to local industries, SMEs, researchers and individual innovators. The Patent Academy offers a variety of training activities specifically addressed to SMEs, start-ups and tech-transfer offices at Universities and research institutions to help them manage IP assets and build successful IP strategies and licensing opportunities. Additionally, we are exploring other training offers to enhance the market for patent information experts, ultimately improving services for SMEs by transforming technical, legal, and commercial information into business intelligence.

• New Fee Structure

Implemented in 2024, our new fee structure, which was developed throughout 2023, supports smaller applicants with a 30% discount. <https://www.epo.org/en/news-events/news/new-simplified-fee-system-supports-small-applicants-30-discounts>

• High-Quality Patents

In 2023, we broadened the scope of our Stakeholder Quality Assurance Panels (SQAPs), one of several diverse, accessible and transparent feedback channels that have enabled users to provide crucial input into the continuous improvement of the European patent

system, as well as this year's EPO Quality Action Plan and Quality dashboard, both of which were made public for the first time. Meanwhile, our independent auditing processes are now more stringent than ever before, with increased granularity helping us to prioritise more effectively the areas we can improve. We are also using technology and AI to make search and classification even more accurate and consistent, enabling the Office to put a premium on timeliness, as well as thorough and harmonised search and examination.

5.2. JPO

• Examination Performance

The JPO has been aiming to achieve the “world’s fastest and utmost quality patent examinations”. To this end, the JPO has been implementing various measures focused on “maintaining speed”, “granting high quality rights”, and “cooperating and collaborating with foreign IP offices”.

The acceleration of the IP creation cycle, comprised of IP creation, establishment of rights, and utilization of rights, requires shortening total pendency. Accordingly, the JPO has been engaging in initiatives to speed up examinations. In 2023, First Action Pendency²¹⁾ and Total Pendency for Patent Examinations²²⁾ were 9.5 months and 14.0 months on average.

• Accelerated Examination System²³⁾

Under certain conditions, the JPO offers accelerated examinations and super-accelerated examinations that, upon the request of an applicant, expedite the commencement of an examination. The accelerated examination system for patent applications may be applied for applications that are also filed in one or more other countries and applications by small and medium-sized enterprises, etc. In 2023, first action pendency from request for accelerated examination was 2.2 months on average.

The JPO is running pilot programs for a super-accelerated examination system for applications of higher importance including the applications for inventions that have already been put into practice

21) The first action pendency is the period from the date of examination request until the JPO sends the first notice of examination results to the applicant, etc. (for the most part, either a notice of patent grant or a notice of reasons for refusal).

22) The total pendency (also called the “standard pendency”) is the period from the date of examination request to withdrawal or abandonment or until a final disposition (excluding cases where the JPO requests an applicant to respond to the second notice of reasons for refusal due to the amendments submitted by the applicant, and where the applicant performs procedures they are allowed to use, such as requests to the JPO for extension of the period of response and for an accelerated examination).

23) <https://www.jpo.go.jp/e/system/patent/shinsa/jp-soki/index.html>

and are filed in one or more other countries. First action is issued within one month from the request, in principle (within two months, in principle, in the case of DO applications).

In 2023, there were 1,224 requests, and first action pendency from request for super-accelerated examination was 0.8 months on average (1.3 months for DO applications).

• **Deliberation on Revising the Examination Handbook**

Advances in AI-related technologies and a rising number of applications have left room for expounding on the case examples of AI-related technologies, such as adding categories that were not covered by existing case examples. In addition, the Intellectual Property Strategic Program 2023 sets forth the following short-term goal: “Enhance and disclose a wider range of AI-related invention examination case examples in light of the increasing potential for the broader utilization of AI in the creative process across various fields”. To this end, on March 13, 2024, the JPO has added ten more cases pertinent to AI-related technologies in the Examination Handbook.

• **Green Transformation Technologies Inventory (GXTI)**

Many countries, including Japan, have set ambitious goals to achieve carbon neutrality by 2050 in order to address the issue of climate change. To achieve this goal, it is essential to promote innovation related to climate change technologies, as well as to accelerate green transformation (GX). The patent system can help promote GX by incentivizing inventors and companies with effective patent protection, and by providing access to patent information on matters including trends in climate change technologies.

In an effort to support the understanding of trends in patent applications for GX-related technologies and also foster green innovation, the JPO published the GXTI²⁴⁾ in June 2022, which classifies technologies that are expected to have an effect on greenhouse gas reduction. The GXTI provides the patent search formulae prepared by the JPO’s patent examiners, which consist of IPC or a combination of IPCs and keywords, for the purpose of analyzing global patent trends that correspond to individual technological categories.

Patent information analysis using the GXTI enables the following:

- Companies can illustrate the strengths and weaknesses of their GX-related technologies, and formulate their research and development R&D strategy accordingly
- Companies can objectively explain to investors the superiority of their R&D capabilities with respect to GX-related technologies
- Governments can foster GX initiatives on an evidence-driven basis

The GXTI is utilized as a common measure for patent information analysis in the fields of GX-related technologies. In addition, the JPO conducted a survey in 2022 using the GXTI to analyze patent filing trends based on individual GXTI categories. The final report was published in May 2023, and is available on the JPO’s website in both Japanese²⁵⁾ and English.²⁶⁾

• **Dissemination of information on the JPO’s measures to overseas users**

The JPO disseminates information to overseas users regarding matters such as the JPO’s measures that are available to overseas users and latest statistics. Through such dissemination of information, the JPO

24) <https://www.jpo.go.jp/e/resources/statistics/gxti.html>

25) https://www.jpo.go.jp/resources/statistics/gxti/tokkyo-joho-bunseki_houkokusho-youyaku.pdf.

26) https://www.jpo.go.jp/e/resources/statistics/gxti/report-results_patent-analysis.pdf

supports overseas users in filing applications with the JPO and smoothly obtaining rights in Japan, and it promotes their understanding of the JPO's activities.

- In 2023, "The JPO Quick Reads"²⁷⁾ was published 45 times, through which the JPO disseminated information focusing on measures available to foreign users, such as the results of patent information analysis based on the GXTI, the JPO's attachés in various countries, the JPO's international cooperation that contributes to global registration of rights, and reports on international meetings.
- The JPO enhanced the content provided on "The JPO Key Features".²⁸⁾ It contains information on a range of measures related to patent, design, trademark, and trial and appeal.
- The JPO enhanced the content of materials that introduce the JPO's measures to overseas users and published the materials on its website.

- The JPO website²⁹⁾ published three more successful cases of foreign companies which are conducting business by acquiring patent rights in Japan. Now nine cases are listed (U.S., Europe, Asia), and the technology fields expanded to include healthcare, AI solution, robotics, and electronics. The JPO raised awareness about the cases at events attended by overseas users.
- In 2023, the JPO exchanged opinions with 32 foreign companies, aimed at deepening their understanding of Japan's IP rights systems and examination practices and grasping what foreign companies demand of the JPO. Companies that wished to exchange opinions with the JPO were invited to apply on its website.³⁰⁾
- The JPO reached a broad range of overseas users also through its English-language official X (formerly Twitter) account³¹⁾ and official LinkedIn account.³²⁾
- The JPO provided updates of its measures to overseas users at international symposiums and seminars.

5.3. KIPO

• Enhancement of Patent Examination Capabilities in the Semiconductor Field

In April 2023, we implemented a novel approach by recruiting retired semiconductor professionals to leverage their expertise as examiners and by establishing a dedicated bureau for semiconductor examination. These initiatives aim to facilitate rapid and accurate patent examinations in the semiconductor sector, a foundational field of the Fourth Industrial Revolution.

• Enhancement of the Patent Trial System with AI and IT

We have begun implementation of a "Digital Patent Trial System" that incorporates AI technology to streamline the trial and appeal process in 2023. This system will be gradually established over three years (2023-2025) and will provide faster, more accurate, and more convenient trial administrative services for its users.

27) www.jpo.go.jp/e/news/quickreads/index.html

28) www.jpo.go.jp/e/news/keyfeatures/index.html

29) www.jpo.go.jp/e/resources/report/sonota-info/presentation-material.html

30) <https://www.jpo.go.jp/e/support/general/opinion-exchange.html>

31) https://twitter.com/JPO_JPN

32) <https://jp.linkedin.com/company/japan-patent-office>

- **Protection of Trade Secrets through Customized Consultations**

Recognizing the vulnerability of small and medium-sized enterprises (SMEs) and universities/public research institutes in IP protection, KIPO introduced “IP-MIX Strategy Consulting” and expanded customized legal and expert consultations to prevent the misappropriation of technologies and trade secrets in 2023.

- **Issuance of the World’s First Purple Notice in the Field of IP Rights**

KIPO initiated the issuance of a INTERPOL Purple Notice concerning new criminal methods related to design infringement which has been shared with Interpol’s 196 member countries. This marks the first time a Purple Notice has been issued in the field of industrial property rights, reinforcing comprehensive IP protection efforts domestically and abroad.

- **Optimization of IP-based National R&D**

In alignment with the Republic of Korea’s “Special Act on Fostering National Strategic Technologies” passed in February 2023, mandating the integration of IP strategies in research and development (IP-R&D), KIPO developed and distributed “IP-R&D Guidelines” to help R&D institutions strategically create and utilize IP in their research activities.

- **Establishment of the Patent Statistics Center & Launch of the IP Valuation & Management Center**

We opened a new Patent Statistics Center to better understand the value and economic impact of IP and established the IP Valuation Management Center to ensure that the true value of IP is recognized. These measures will foster the creation and utilization of high-quality IP as a catalyst for the development.

5.4. CNIPA

In 2023, the Chinese government made major optimization and adjustment to the administrative mechanism for IPR by adjusting CNIPA into an institution directly under the State Council. In the Global Innovation Index 2023 issued by WIPO, China became the nation with the largest number of “top 100 science and technology clusters” for the first time.

CNIPA further improved the quality of IP examination and made efforts to provide convenient and efficient services. The total number of domestic valid invention patents in China reached 4.015 million, and China became the world’s first country with more than 4 million domestic valid invention patents. The number of PCT, Hague and Madrid international applications for patents, designs and trademarks steadily ranked at the forefront of the world. The average pendency for the examination of invention patents was reduced to 16

months, and the average pendency for the trademark examination was reduced to 4 months, both reaching the international advanced level with comparable examination system. The coverage of IP public service branch centers and comprehensive service institutions was further expanded, and IP basic data became readily accessible to the public.

CNIPA continued to strengthen the protection of IPR to help build first-class business environment. The newly amended Implementing Regulations of the Patent Law came into force, while new amendments to the Trademark Law and its Implementing Regulations were being accelerated. The Measures for the Protection of Products with Geographical Indications and the Provisions on Registration and Management of Collective Marks and Certification Marks were issued. The pilot projects for IPR protection of data were further

promoted, and the construction of national intellectual property protection demonstration zones was carried out at a high standard, with 112 national IP protection centers and fast-track IPR enforcement centers built. The social satisfaction rating on IP protection reached 82.04, hitting a record high.

CNIPA continued to promote the commercialization and utilization of IP to effectively empower innovative development of the economy. The Special Action for Patent Transformation and Utilization was further implemented to promote the commercialization of new achievements into practical productivity. The patent and trademark pledge financing amounted to 853.99 billion RMB in 2023, a year-on-year increase of 75.4%, benefiting 37 thousand enterprises. The total import and export of IPR royalties reached 376.52 billion RMB. The added value of patent-intensive industries in China reached 15.3 trillion RMB, accounting for 12.7% of GDP, and contributing 1/8 of GDP nationwide with less than 7% of employment in

the whole society. The patent industrialization rate of enterprises exceeded 50% for the first time.

CNIPA continued to advance international cooperation on IP to promote the open circulation of innovation resources. CNIPA held a series of activities marking the 50th anniversary of cooperation between China and WIPO at a high standard. CNIPA actively participated in the IP5 cooperation, deepened and expanded the BRICS cooperation on IP, and held the China-Central Asia, China-ASEAN and China-Africa IP cooperation conferences. The second list of 350 GI products to be recognized and protected by China and the EU was publicized.


CNIPA will comprehensively strengthen the chain of creation, utilization, protection, management and service of IP, and further deepen the friendly cooperation with IP offices of other countries and regions worldwide. With joint efforts, the global IP ecosystem will be more dynamic, and a more beautiful future will be created.

5.5. USPTO

- **March 2024:** The USPTO announced the launching of the Community Outreach Campaign: IP Champions. This program connects USPTO employees (designated "IP Champions") - trained in providing IP awareness and educational resources to diverse audiences - with high schools and local community centers.
- **March- June 2024:** The USPTO in collaboration with AIPLA and IPO initiated USPTO-AIPLA and USPTO-IPO Mentoring Programs. The mentoring programs include resources and initiatives to empower women inventors and entrepreneurs.
- **April 2024:** USPTO published a Request for Comment (RFC) on the impact of AI on certain patentability

determinations (e.g., what qualifies as prior art, assessment of POSITA). The RFC acknowledges the opportunities and challenges presented by the maturation and proliferation of AI technologies—economic, societal, and innovative—and the questions seek input on various issues on which the USPTO may consider providing guidance.

- **May 2024:** AI-ET Partnership is an ongoing cooperative effort between the USPTO and the AI/ET community, including academia, independent inventors, small businesses, industry, other government agencies, nonprofits, and civil society. The USPTO seeks to engage the AI/ET community on ongoing and future USPTO AI/ET efforts, such as using



AI and ET within the agency to enhance the quality and efficiency of patent and trademark examination. Additionally, the USPTO seeks the public's views on various intellectual property (IP) policy issues that uniquely affect the AI/ET community. The Partnership

will host a series of meetings exploring AI/ET-related initiatives at the USPTO and IP policy issues impacted by AI and other ET. On May 15th hosted a public webinar on recent guidance of Use of Ai-based tools in practice.

6.1. Activities and resources to support SMEs

Empowering SMEs and startups to understand, manage and leverage IP effectively

WIPO has been actively involved in implementing various initiatives and solutions to support entrepreneurship policies and strategies at national, regional, and international levels. These efforts have been geared towards empowering businesses, particularly SMEs and startups, to understand, manage, and leverage intellectual property effectively. Some of the key initiatives and solutions include:

- **Development of Comprehensive IP Tools and Materials:** WIPO has developed a range of tools and materials designed to assist businesses in understanding and utilizing intellectual property. These resources include guides, diagnostic tools, podcasts, and other educational materials aimed at demystifying IP concepts and providing practical insights. To illustrate this, we can refer to the WIPO IP Diagnostics tool, an online free assessment tool, which is already available in more than 15 languages, including a sector version for publishers. This tool has been accessed by over 40 000 visitors since its launch in November 2021.
- **IP Management Clinics for SMEs/Startups:** This is a four-month program that supports innovative companies to formulate their IP strategies based on their business plan and IP portfolio. The selected companies will benefit from combined business and legal mentoring from IP and business experts, across various sectors and industries. This program covers a variety of sectors and industries from artificial intelligence to fashion, agribusiness, and creative fields. We work closely with IP Offices, innovation agencies, incubators, and accelerators across the globe

to implement this program. In 2023, we implemented 14 clinics across 30 countries.

- **Support to National IP Offices and SME Support Institutions:** WIPO engaged in collaboration with 43 SME support institutions and five National IP Offices to enhance their portfolio of IP services for SMEs and strengthen their Business Support Units.
- **In the aftermath of the COVID-19 pandemic,** the digitalization demand of SMEs increased along with the risk of IP infringement. WIPO contributed to the digitalization of 49 SMEs including 35 owned by women in line with the IP System through short-term mentoring sessions dedicated to website development and optimization, e-commerce store set up, comprehensive business strategy guidance, and IP diagnostics.

In addition to its activities at the national and regional levels, WIPO also engages in international outreach and knowledge sharing. This includes participating in conferences, workshops, and other events to share best practices, lessons learned, and innovative approaches to supporting entrepreneurship through intellectual property.

Supporting SMEs through Institutional IP Policies

WIPO provides vital support to universities, technology transfer offices, and public research organizations in developing IP policies that promote innovation, effective IP management, and efficient technology transfer. Institutional IP policies create a bridge between academic research and the commercial needs of SMEs by:

- **Providing Access to Cutting-edge Research:** Universities are often at the forefront of scientific and technological advancements. By having structured IP policies, they can offer SMEs access to innovative research and new technologies, which these enterprises might otherwise not have the resources to develop independently.
- **Fostering Collaborative Partnerships:** Clear IP policies outline the terms of collaboration between universities and SMEs, making it easier to form partnerships. These partnerships can result in joint research projects, co-development of products, and shared intellectual property rights, benefiting both parties.
- **Enhancing Commercialization Opportunities:** By protecting and managing their IP assets, universities can license their technologies to SMEs. This arrangement allows SMEs to bring new products to market faster, leveraging the advanced research conducted within academic institutions.

For example, WIPO's IP Policy Template for Academic and Research Institutions has helped establish more than 600 institutional IP policies worldwide, tailored to local needs and conditions.

WIPO's database of nearly 750 institutional IP policies serves as a comprehensive resource for best practices worldwide, with links to existing IP and related policies (such as policies on consulting, copyright, conflict of interest, software, open access and spin-offs) of universities and research institutions worldwide.

In addition, the recent launch of our guide on "Incentives in Technology Transfer" highlights the critical role of academic researchers and technology transfer professionals in innovation, offering ideas for attracting and retaining talent with examples of incentives from universities in more than 60 countries.

Madrid System

In accordance with the WIPO Medium-Term Strategic Plan (MTSP) 2022-2026, to provide high-quality intellectual property services to global users, WIPO emphasizes offering more convenient, seamless and effective way to secure IP rights across borders, in particular to help SMEs and startups to grow.

WIPO has continued to make great efforts to ensure that the Madrid System continue to bring value and is seen as the most attractive option for trademark owners, in particular SMEs and startups, who seek trademark protection in the countries members of the Madrid Protocol.

This involved making continued efforts to attract wider and more effective use of the Madrid System, more specifically, focusing on expanding the number of members, promoting the Madrid System to users to make them aware of how they can benefit from using the Madrid System, improving productivity and quality of services, and progressing on the digital transformation.

WIPO has made efforts to enlarge the geographical coverage of the Madrid System. With the recent accessions of Belize and Mauritius in 2023 and Qatar so far in May 2024, the Madrid System now has 115 members covering 131 countries, with more countries to join in the near future.

Focusing on increasing the awareness of the Madrid System with SMEs, WIPO has engaged with more new users in all regions. We have partnered with national and regional IP offices and business associations to promote greater use of the Madrid System. For example, in 2023, we organized 6 promoting activities for SMEs in targeted markets, like in China, Latin America and ASEAN regions, as well as one activity targeting women entrepreneurs and how they may boost their businesses with the Madrid System.

WIPO has continued focusing on improving productivity and quality of the Madrid System services to facilitate SMEs. We have reduced the pendency, measuring the time it takes for the International Bureau to record specific transactions. Continuing the digital transformation of the Madrid System, WIPO has achieved full electronic communication with IP Offices (from 2022) and an increasing number of Offices (25) are now using our Madrid eFiling tool for international applications. We can communicate electronically with holders/their representatives in almost all (99%) international registrations, and we have online forms for the most commonly used transactions.

The eMadrid portal enhanced user experience in using the Madrid System and made its services more user-friendly.

Concerning future focus and work of the Madrid Registry: In addition to continue focusing on the above mentioned areas, the members of the Madrid System

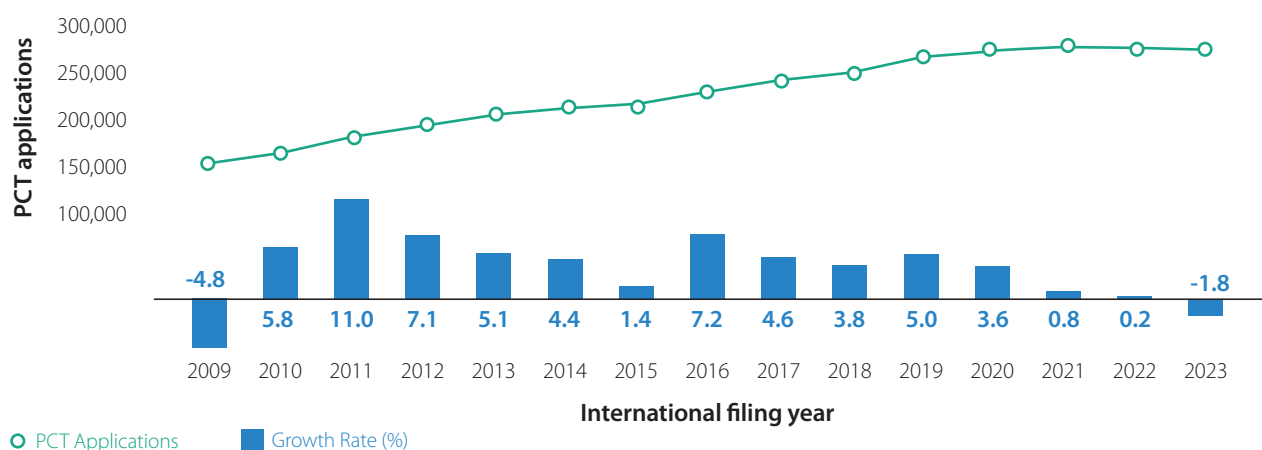
are discussing important possible improvements of the System, related to a possible reduction of the 5 year dependency period, and introducing possible new languages (currently we have only English, French and Spanish, and we are discussing the possible addition of Arabic, Chinese and Russian).

6.2. Statistics (PCT)

PCT filings

- Total PCT applications filed in 2023: 272,600, representing as decline of 1.8% on 2022. This decrease in filings, which ends 13 years of consecutive growth, was primarily attributed to fewer filings of PCT applications from applicants based in Japan and the US.
- Greatest growth in PCT applications filed among the top 20 origins, 2022–2023: India (+44.6%) Austria (+9.1%) and Türkiye (+8.5%).
- The majority of PCT applications were filed in Asia in 2023, accounting for 55.6% of total, up 15.1 percentage points over 2013 (40.5%).
- 17.7% (+0.6 percentage point on 2022) among inventors in PCT applications were women.
- PCT Applicants filed 99.3% of PCT applications electronically
- 87 receiving Offices accepted ePCT filings and applicants filed 104,673 PCT applications using it

Figure 2. Trend in filings of PCT applications, 2009–2023



Top 5 origins of PCT applications filed in 2023:

- China: 69,610
- US: 55,678
- Japan: 48,879
- Republic of Korea: 22,288
- Germany: 16,916

Top 5 technology fields in published PCT applications in 2023 (share of total):

- Computer technology: 10.2%
- Digital communication: 9.4%
- Electrical machinery: 7.9%
- Medical technology: 6.7%
- Pharmaceuticals: 4.7%

Of the top 10 fields of technology, four saw growth in 2023: electrical machinery (+8.8%), transport (+7.7%), semiconductors (+5.6%) and biotechnology (+3.8%).

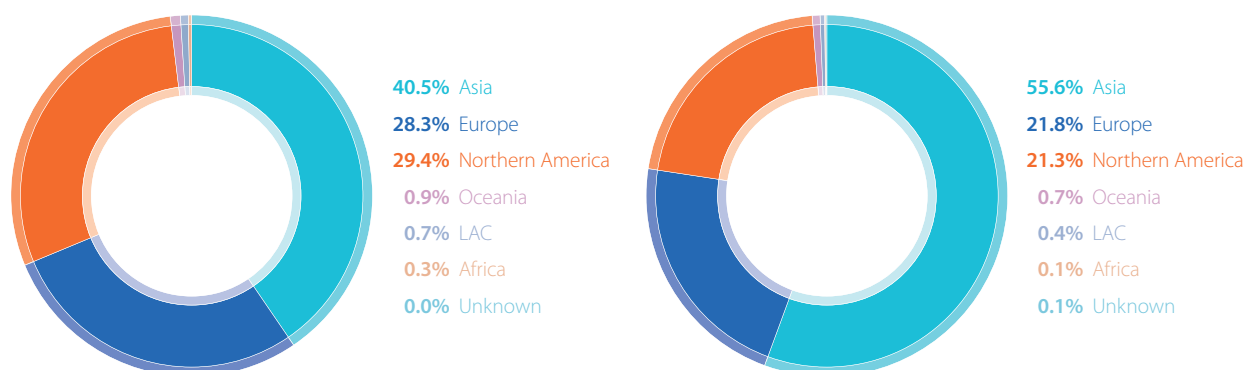
Top 5 PCT applicants in 2023:

- Huawei Technologies of China: 6,494
- Samsung Electronics of the Republic of Korea: 3,924
- Qualcomm of the US: 3,410
- Mitsubishi Electric of Japan: 2,152

- BOE Technology Group of China: 1,988

Among the published PCT applications, the business sector accounted for 88.3% of the total, followed by the university sector (5.9%), individuals (3.9%) and the government and public research organization (PRO) sector (1.8%).

Figure 3. Distribution of PCT applications by region, 2013 and 2023:



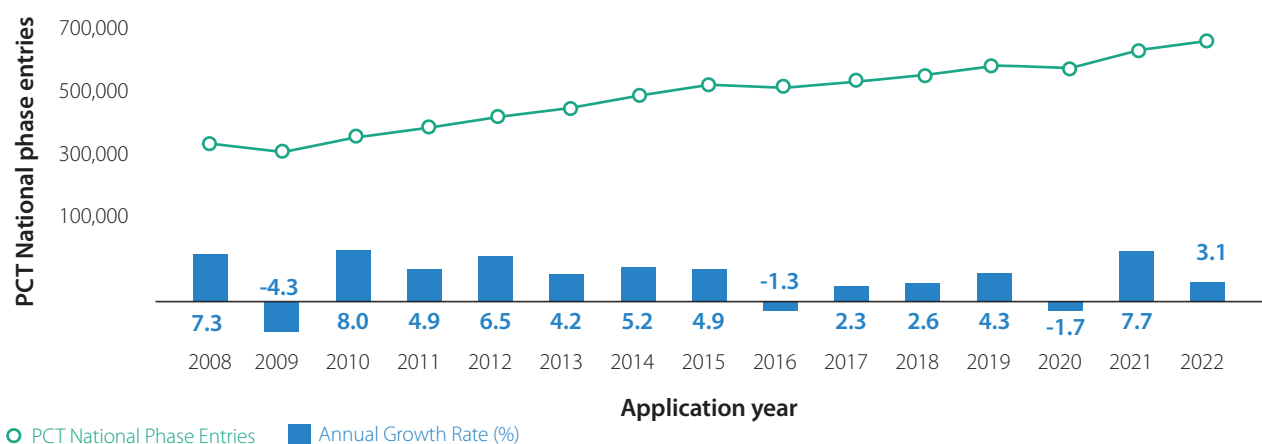
Note: Data for 2023 are WIPO estimates. Each region includes the following number of origins: Africa (21), Asia (35), Europe (44), Latin America and the Caribbean (LAC) (18), North America (3) and Oceania (5).

PCT national phase entries

About 737,000 PCT national phase entries were initiated worldwide in 2022. This represents a 3.1% increase on the previous year, mainly driven by an increase in filings from China and the US.

In 2022, the PCT route was used for 59% of non-resident patent applications worldwide, resulting in a total of 618,000 non-resident PCT national phase entries initiated.

Figure 4. Trend in non-resident patent applications by filing route, 2008–2022



Note: WIPO estimates. National phase data from patent offices are available up to 2022.

Source: WIPO Statistics Database, March 2024.

6.3. Key developments in 2023

Worldwide Patent Filings

- Innovators from around the world submitted 3.46 million patent applications in 2022, marking a third consecutive year of growth.
- China, the US, Japan, Republic of Korea and Germany were the countries with the highest numbers of patent filings in 2022. While innovators from China continue to file nearly half of all global patent applications, patent applications by residents of India grew by 31.6% in 2022.

The TISC (Technology Innovation and Support Center) program and technology transfer projects

- The TISC program and technology transfer projects support WIPO's mission to help member states develop their IP and innovation ecosystems and to support researchers and innovators in using the IP system for innovation promotion, technology transfer and economic growth.
- With 1,494 TISCs in 93 countries by the end of 2023, the TISC Project and Performance Management Platform (TPPM) was developed by WIPO to support the growing global TISC network in managing national TISC networks more effectively was rolled out in 14 countries. The platform will especially help TISC coordinators manage their national projects, coordinate, evaluate and report on their activities.
- A WIPO TISC staff certification program was also developed to professionalize TISC management and increase the standardization of TISC operations, raise the quality of services across TISCs, improve client confidence, and improve career development pathways for TISC staff to increase retention of highly skilled TISC personnel.
- In November 2023, WIPO launched a Patent Analytics Community of Practice (CoP) as a timely thought leadership initiative designed to fill an existing gap, formalize and support the global patent analytics practitioners' community.

Madrid

- In 2023, around 64,200 applications were filed and Mauritius joined the Madrid System.

The Hague

- The accession of Brazil and Mauritius in 2023 has increased the number of Hague members to 79 covering 96 countries.
- In 2023, 8,566 international applications for design protection under the Hague System were received, representing a healthy 7.4% increase on the previous year.
- The Hague System accounted for around 40% of all non-resident design filings in 2022 and applicants from at least 68 countries or territories filed one or more Hague application in 2023.

Launch of CLIP (goclip.org)

In November 2023, WIPO and the Music Rights Awareness Foundation (MRAF) launched a new online platform to raise creators' awareness of intellectual property (IP) rights and related management practices. CLIP ("Creators Learn Intellectual Property") is a free resource that aims to help creators worldwide understand their creative industries, be aware of their responsibilities to identify and describe their works, performances and sound recordings, and leverage their intellectual property rights to receive proper credit and compensation, and ultimately advance their careers. Content is presented by creators, for creators, in a concise and user-friendly way, through brief videos by fellow creators and short articles that are organized by topic. Initially launched with music industry-specific content, CLIP will grow to include a range of creative disciplines, including literature, audio-visual creation, dramatic and visual arts, and more.

7

Efforts and Initiatives for SMEs by IP5 Industries

7.1. Business Europe

From an industry perspective, BusinessEurope considers it crucial to understand and help SMEs. SMEs are, to a large extent, the backbone of the economy, and their use of IP is key to competitiveness. SMEs with IP rights have 68 percent higher revenues per employee, which is a significant figure.

Moreover, innovations from SMEs are crucial for achieving the Sustainable Development Goals. However, if SMEs have great innovations but make mistakes with IP, it can result in important innovations not reaching their full potential. For example, mistakes with patents can lead to a loss of investments. Therefore, the industry welcomes different initiatives and emphasizes all efforts made to educate SMEs on IP. It is not only about explaining the rules but on the value of IP for their strategies and growth. Joint collaborations and communications need to be fostered to reach out to SMEs.

BusinessEurope is pushing for the following pro-SME action agenda at EU level:

- reduce the volume and improve the quality of EU regulation applicable to SMEs;
- improve SME access to the lending and non-lending financing routes;
- support SME efforts to innovate;
- favour integration of SMEs in global value chains;
- support SME efforts to internationalise;
- make national administrations more responsive to SME needs;
- foster a pro-entrepreneurship culture and legal environment in Europe.

Support for EU SME strategy

Full attention must be given to SME needs in the design of the EU flagship initiatives: the single market for goods and services, the digital single market, the trade negotiations, the EU regulatory reform, etc. For Business Europe it is essential to support SMEs strongly.

In this regard, Business Europe has expressed various opinions regarding SME strategies and policies of European Commission with its position papers and statements as follows:

- Better regulation in the new legislature paper (17/07/2024): advocates for strong impact assessments in EU proposals but also assessing impact of secondary acts on SMEs
- Competitiveness check in EU policy (27/04/2024) with emphasis on SME impacts
- Proposed regulation on late payment (Joint statement by BusinessEurope, EuroChambres and EuroCommerce) (22/04/2024)
- Directive establishing a head office tax system for micro, small and medium-sized enterprises (SMEs) (position paper) (14/12/2023)
- SME Relief Package and the Late Payment Regulation (position paper) (27/11/2023)
- The European Commission's SME relief package (24/03/2023)
- Study supported by BusinessEurope on The Benefits of Intellectual Property Rights in EU Free Trade Agreements (2022) also emphasizing benefits for SMEs
- Making Better Regulation work better for SMEs - The SME Test benchmark 2022
- The new EU SME strategy: 50 actions to make it work (06/02/2020)

SME access to finance

In the future, conditions will be tighter as regards access to bank credit for small companies everywhere in Europe, and also for medium-sized companies in many countries. Innovative policy thinking is needed to improve SME access to the non-lending financing routes: venture capital, mezzanine finance, private placement, crowdfunding, access to financial markets, etc.

Business Europe has expressed various opinions for the European Commission, the European Investment Bank and the member states to take creative measures for encouraging blending of private money with EIB money and national funds with a view to supporting SME investment as follows:

- Listing Act: making public capital markets more attractive for EU companies and facilitating access to capital for SMEs (position paper) (14/12/2023)
- European banking and SME organisations move forward industry-wide dialogue on access to credit (public letters) (08/04/2020)
- Making the EU SME definition fit for SMEs in need of venture capital and other sources of growth finance (position paper) (24/04/2018)

SME internationalization

Growth of many SMEs depends on an ambitious EU trade agenda being implemented. Possibilities of cooperation between organisations providing support for SME internationalisation should be explored, given the gaps in the service offer, and the missed opportunities for synergy between players.

In this regard, Business Europe has issued some speeches and press releases regarding SME strategies and policies of European Commission with free trade agreements as follows:

- How to get more SMEs taking advantage of free-trade agreements (FTAs), 2018 European SME Assembly (speeches) (21/11/2018)
- EU SMEs need to make better use of EU trade agreements (press releases)

BusinessEurope national member organisations also adopted different initiatives to promote awareness on the value of intangible assets. One example is provided by our Swedish Member (SN) who has prepared school materials and Youtube clips. These are widely used in Swedish schools (see Youtube link here: <https://www.youtube.com/watch?v=pAlqyXlzyrM>)

7.2. JIPA

The purpose of JIPA (Japan Intellectual Property Association) is to contribute to the management of its members, the sound advancement of technology and the development of Japanese industry by promoting the proper use and improvement of various intellectual property systems. JIPA promotes the activities of SMEs through IP support, such as promoting the growth of SMEs through education.

To promote the growth of SMEs through education

JIPA has developed a highly organized training menu for its members, from beginners to professionals, and by providing this, it supports the growth of SMEs.

Examples of corporate intellectual property activities that promote the growth of SMEs

Fujitsu Limited grants Delight Health (a Bay Area startup providing mental health solution) a license under Topological Data Analysis (TDA) technology in exchange for an equity position in Delight Health. This license will support Delight Health's plan to gain rapid FDA approval in the US by fiscal 2024 and bring to market an advanced delirium detection device to accurately predict the onset of the disorder and address the needs of patients suffering from this ailment.

For SMEs with limited financial resources, it may be

possible to support the growth of SMEs with IP license and technical support and furthermore partnering

with a company by taking an equity position as an exchange for the license.

Table 12. JIPA's IP Education Programs for SMEs

Subject	Main Contents
Comprehensive strength and human resource development	Comprehensive strength Overseas on-site training IP human resources development IP course for engineers
Patent Filing/Prosecution	Prosecution correspondence How to write an invention description/specification Patent system in each country
Strategy/Utilization/Dispute	Utilization Case law/Litigation Contracts
IP language skills/dialogue skills	IP language skills Dialogue skill

7.3. KINPA

KINPA (Korea INtellectual Property Association) is an association of in-house IP professionals experts in Korean companies, with a mission to contribute to the growth and competitiveness of member companies. It operates several committees, such as the SME Committee, Advisory Committee, Education Committee, etc., and several regular meetings with the Patent Office to share patent issues and solve SMEs' difficulties in IP management.

Formation of Joint Corporate Consultative Body and co-handling IP issues through it

Korean industries, including SMEs in the same industry are forming consortia to jointly investigate and analyze patents held by leading foreign companies to identify problematic patents and address patent-related issues.

This has contributed to reducing patent risks and costs for SMEs.

KINPA supports these efforts through the SME Committee, in which SME members share information on each company's 'patent issues' and 'know-how in dealing with patent issues,' enabling them to track patent trends by industry, identify industry-specific problematic patents, and acquire know-how for addressing such problematic patents.

Providing IP advisory and Consulting to SMEs by Private Associations

In Korea, there are associations composed mainly of SMEs. Some associations(e.g. COREBiz, KOVA, KINPA and so on) run programs that provide various advisory and consultancy services to their member companies,

which are relatively inexperienced in IP matters, and contribute to reducing patent risks and costs and establishing an IP culture for SMEs.

Providing a program for Free Transfer of large company's patent rights to SMEs.

Korea has a program that transfers patent rights relinquished by large companies to SMEs free of charge. This program gives SMEs the opportunity to strengthen their patent portfolios.

Expansion of IP Education Opportunities

Korean industries have many IP training opportunities, but they are expanding them. Those with more diverse content and high expertise could provide more practical know-how and allow SMEs to use industry experts.

This would allow for a higher awareness of IP, and if decision-makers, when they take executive courses such as the MBA, are exposed to such IP-centered content and through these courses have a higher IP awareness, we believe this will be helpful.

Handling IP issues through the formation of a public-private consultative body

The government-led public-private partnership supports a project in which participating companies and patent office experts work together on strategic

IP acquisition, IP-based prototyping advice and IP-centered product commercialization.

Communication Channels between private associations and the Patent Office

There are two types of communication channels to address SMEs' difficulties in IP management. One is Joint Meetings between Private Associations and the Patent Office, which are regularly organized to share patent-related issues.

The other is Public Hearings on IP Status for SMEs, which conducts surveys on how SMEs develop and use their own IP. These communication channels address the difficulties faced by SMEs in IP management.

Support the creation of various Licensing Platforms to enable IP commercialization

Efforts are needed to operate various licensing platforms to support the monetization of SMEs' patents. SMEs focus on securing their patents, but it is difficult to directly monetize them.

When a government-led licensing platform is launched, it is necessary to provide benefits for SMEs such as reducing the cost of subscribing to the licensing platform. Through the licensing platform, SMEs can generate revenue from IP and increase IP awareness within the company.

7.4. PPAC

PPAC (Patent Protection Association of China) focuses on four key activities to support the growth of SMEs through intellectual property: promoting the transformation and application of patents in SMEs, strengthening the protection of intellectual property rights for SMEs, improving SMEs' intellectual property management capabilities, and providing intellectual property public services through standardization work.

To promote the transformation and utilization of patents in SMEs

PPAC has been building and leveraging online platforms to help the SMEs' patent transformation and utilization. Through Pilot Platform for Patent-Intensive Product Filing and Recognition, PPAC helps to Cultivate and promote patent intensive products, thus to guide the high-quality development of SMEs, and promote the

development of patent intensive industries.

Through National Patent Navigation Comprehensive Services Platform, PPAC promotes patent conversion resources and patent navigation achievements to the SMEs, to improve their innovation efficiency and quality.

To strengthen the protection of intellectual property rights for SMEs

PPAC has established a nonprofit intellectual property dispute mediation committee and carried out "litigation mediation coordination" work with the court system. Currently, it mediates more than 3,000 cases annually, providing fast and flexible channels for resolving intellectual property disputes for enterprises, especially SMEs.

For intellectual property disputes on e-commerce platforms, PPAC also conducts infringement determination work to help SMEs solve their legitimate problems with high efficiency and low cost.

To enhance the intellectual property management capabilities of SMEs

PPAC provides free intellectual property training on policies, laws and regulations, management, and practical operations for SMEs from time to time,

helping to comprehensively enhance their intellectual property capabilities.

PPAC has established a coordination mechanism with other industry organizations in China to carry out in-depth cooperation in intellectual property protection self-discipline, industry intellectual property research, intellectual property promotion and education, and jointly promote the improvement of intellectual property awareness and capabilities of SMEs in various industries.

To provide intellectual property public services through Standardization work

PPAC actively promotes the application of international and national standards related to intellectual property in enterprises, supports enterprises, especially small and medium-sized enterprises, to continuously improve internal management and maintain innovative development vitality.

PPAC has drafted and released multiple Group Standards on intellectual property protection, application, management, and other aspects to guide enterprises to strengthen scientific management. Such as Enterprise trade secret Management, Method for enterprise patent intensive product evaluation, etc.

7.5. IPO and AIPLA

IPO (Intellectual Property Owners Associations) and AIPLA (American Intellectual Property Law Association) emphasize the alignment and cooperation between their programs aimed at supporting SMEs within the IP ecosystem. SMEs play a critical role in the IP ecosystem. IPO and AIPLA offer a variety of resources and services for SMEs, including educational programming, toolkits, digital tools, videos, podcasts, and pro bono services, including but not limited to the specific examples below. IPO and AIPLA would welcome the opportunity to find more ways to share our members' expertise in

promoting and protecting innovation with SMEs.

IPO Educational Foundation

The IPO Education Foundation provides numerous online resources such as Chief IP Counsel in a Box, the WIPO IP Diagnostics Tool, links to pro bono services, and other helpful materials. Furthermore, the foundation partners with schools, universities, and STEM programs, hosting an invention competition and a law school mentor program aimed at exposing underrepresented groups to careers in IP law.

Women Entrepreneur Initiative

In partnership with the USPTO (United States Patent and Trademark Office), IPO has launched the flagship Women in Entrepreneurship Mentor Program. IPO supplies mentors for this initiative, which has seen a 52% increase in mentor-mentee pairs during its second round. This round will conclude in July, followed by a participant survey to gather feedback.

Roadshows Hosted by USPTO

Additionally, IPO and AIPLA members have actively participated in USPTO-hosted roadshows. These events have enabled SME representatives to gain a deeper understanding of the IP system, with IPO and AIPLA members generously sharing their expertise by speaking at these gatherings.

AIPLA/USPTO Women Entrepreneur Mentoring Program

Similarly, the USPTO and AIPLA have partnered to provide mentorship to AIPLA members and participants

in the USPTO's Empowering Women's Entrepreneurship initiative. This community-focused program aims to encourage and empower more women founders across America and has included three webinars and a concluding networking event, focusing on IP law topics, advice from AIPLA's women entrepreneurs, and opportunities for mentorship among women with diverse skills.

AIPLA and Pro Bono Activities

Many SMEs and individual inventors rely on pro bono assistance to better understand and navigate the intellectual property system. AIPLA's Committee on Pro Bono focuses on the needs of these innovators issues and helps connect practitioners to such opportunities to provide assistance. AIPLA works closely with the USPTO, the Pro Bono Advisory Council, and other organizations to encourage and support involvement in pro bono activities and raise awareness among the innovation community.



THE ROLE OF IP IN FOSTERING THE GROWTH OF SMEs

