



CHINA

STUDY ON
China Utility Model Patent System
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EXECUTIVE SUMMARY

This study is a part of the IP Key 2021 project and focuses on a comparative study of current utility model systems in China and three selected European countries (Germany, France, and Italy), in order to present a comprehensive picture of the current utility model system.

The utility model system in Germany and Italy is quite mature and has remained substantially unchanged over the past few years. France amended its Patent Law in 2020, to reform the former utility certificate system, and the main changes only included the extension of the protection period and allowing the conversion of utility model applications to invention applications. Although China has implemented and promoted various measures to improve the overall IPRs protection system including the utility model system, the utility model system itself has not been amended to a great extent.

Key findings

Key findings of the present report include (for the sake of clarity and conciseness, here only lists changes compared to the 2014 comparative report on the utility model systems in China and EU):

- Duration of protection: after reform of the French utility model certificate system, duration of protection in all countries under study is ten years.
- Official costs: official costs for utility model remain substantially stable, with slight increases in France and China.
- Monetary incentives for filing: the China National Intellectual Property Administration (CNIPA) announced in early 2021 that all levels of funding to pending patent applications will be cancelled by end June of the same year.
- Time to grant: In China, the examination cycle of utility model in certain fields (e.g., new energy, internet technology, etc.) could be significantly shortened to 2 months through prioritized examination or rapid pre-examination.
- Invalidation: in China, the Patent Re-examination Board was incorporated into CNIPA as Re-examination and Invalidation Department of the CNIPA.

CNIPA implemented various measures to improve the efficiency of handling patent dispute cases, for example, the so-called “Joint Oral Hearing” set up by the Beijing Municipal Intellectual Property Office.

- Infringement proceedings: in China, following the establishment of the IP Court of the Supreme Court, three dedicated IP courts, and 20 intellectual property tribunals, a so-called “1+3+20” intellectual property jurisdiction has been established;
 - i. the newly established Intellectual Property Court of the Supreme People’s Court (SPC IP Court) enjoys a national jurisdiction over technical civil IP cases as well as appeals of patent validity decisions;
 - ii. the upper limit of statutory compensation has been raised, and a punitive damages system has been added.

Possibility of further improvements

Although China's IPRs protection environment has been improving, according to the 2020 China Patent Survey Report published by CNIPA, the incidence of infringement remains at a substantially fixed level from 2017 to 2020, and more than 70% of the Chinese patentees still expect the improvement to continue.

With reference to the proven practice of European countries under study, China's utility model system may further be developed by:

- specifying the standards of inventive step of a utility model patent as compared to that of an invention patent;
- allowing the interconversion of utility model applications and invention applications to offer options for patent applicants to choose after filing a patent application;
- promoting various measures to further improve patent quality, including supervision and guidance to patent agencies to improve the quality of patent drafting services;
- promoting collaborative innovation, especially industry-university-institute cooperation to convert research and innovations completed by universities and research into patent asset of corporations;
- promoting rapid processing of simple cases and disputes, especially for a utility model patent with expectation of low inventive technologies involved;
- regulating the standard of evidence in different channels such as justice, administrative enforcement, arbitration and mediation;
- enriching financing channels, especially improving the intellectual property securitization financing system;
- providing support policies of financial incentives and subsidies for valuable patents, as well as tax deductions for license and transfer; and
- increasing the total cost of filing and maintaining patents, in order to encourage innovations of high value to be filed and maintained as a patent and reduce the number of existing patents of low value in the China patent portfolio.

1. METHODOLOGY

1.1 Overview

This study updates an IP Key 2014 comparative report on the utility model systems in China and EU. Utility Model regimes have gone through important changes in the past few years, most of them in the direction of strengthening applicants' rights, including the reinforcement of exclusive rights conferred to applicants and expanding their coverage.

Reforms in China and Europe have been mainly led by requirements set out in international treaties, and decisions taken at major patent offices and courts. This study is intended to compare the current status of utility model regimes in Europe and China from (i) innovation (ii) legal (iii) economical and (iv) policy perspectives.

- From an innovation perspective, we will research how these systems have been utilized by companies in recent years. What implications do these findings have for countries' overall innovation index, R&D activities, patenting activities? By way of example, the former "utility certificate" system in France was not particularly popular, since the attractiveness of the lower cost and easier procedure for obtaining a utility certificate in France was often offset by the uncertainty inherent in the right.
- From a legal perspective, the aim of this comparative analysis is to provide insights into key legal issues. How do the utility model systems in EU Member States and China compare in terms of core statutory, procedural, components and enforcement? For example, unlike China, France requires the same inventive step requirement for utility certificates and invention patents.
- From an economic perspective, we will research whether entities have benefited economically from utility model systems (e.g., China, Germany) or not (e.g., France) and the reasons of these discrepancies (e.g. are they unattractive, outdated, significant uncertainty/patent quality problems etc.)
- From a policy perspective, we will analyze and compare the main factors influencing and explaining the growth, stagnation, or decline of utility model systems including any policy revisions to these systems.

In our analysis we will particularly examine legal and policy developments towards improving the efficiency of the work of the Patent Offices to increase the quality of utility model applications, and the effectiveness of procedures for invalidating and otherwise enforcing against low-quality utility models.

This update allows us to optimize the impact of the longer-term comparative study, with conclusions and recommendations focused on further improving China's utility model system since the prior 2014 comparative analysis.

1.2 Methodology

1.2.1 Prior utility model study

The 2014 comparative analysis report covered four aspects of utility model systems in six EU countries (Austria, Czech Republic, Finland, France, Germany and Italy) and China:

- a) Comparative analysis of the substantive, procedural and institutional frameworks of the utility model systems, covering 23 topics (e.g., duration, official costs, inventive step, invalidation proceedings and invalidation proceedings, etc.);

- b) Analysis of the 15 main factors of the composition of and revision to the utility model systems;
- c) Comparative analysis of the usages of the utility model systems, including the number of utility model applications;
- d) Implications for mentioned countries revising or creating a new utility model system.

1.2.2 Jurisdiction Selection

This study is limited to China and selected EU countries: Germany, France and Italy. All selected countries in this study follow a civil law system making it a more comparable study.

Germany was the first country to introduce a utility model system and is considered to have one of the more developed frameworks in place. This level of establishment serves as a good benchmark to include in the study.

In comparison, the French utility model system has been considered as an unsuccessful system. Due to the short term of protection and the relative instability of patent rights, in the past, French applicants had no interest in filing utility model applications. Before 2020, The number of French utility model applications remained at 400-600 every year, which is almost negligible compared to the number of invention applications filed yearly (more than 10,000 on average per year). For this reason, France reformed the utility model system in 2020, mainly by extending the protection period and allowing utility model applications to be converted into invention applications. It is therefore necessary to conduct some research on the reform of the French utility model system.

Both the Italian and Czech utility model systems are relatively well established. In this Study, Italy was chosen over the Czech Republic for several reasons:

- i. Italy has relatively more active utility model patent filings than the Czech Republic. According to our initial research, Italy ranks within the top 10 utility model patent receiving countries and Czech Republic ranks after Italy.
- ii. Venice, Italy issued the world's first patent law in 1474, establishing the world's first patent protection system. It will be interesting to review and study the oldest utility model patent system.
- iii. Italy has more engagement with other countries concerning active innovations.

The reasons noted above demonstrate the value in studying the Italian utility model system over the Czech Republic's system.

1.2.3 Factors being assessed

This new 2021 study will carry out **desk-based research** to find out the criteria for granting utility model patent rights under current patent application systems, including factors (based on all 23 topics in the 2014 study) which may predict the number of utility model grants such as:

- Monetary incentives for filing: following the 2020 the Plan for Implementing National IPR Strategy and Accelerating the Buildup of a Powerful Country of IPR, subsidies and awards for the registration of utility models will be gradually abolished. In addition to relevant central level policies, the study will analyze typical province/local level policies as well.
- Infringement proceedings: following the establishment of the IP Court of the Supreme Court and three dedicated IP courts, there has been a significant shift in IP case proceedings. Specifically, the newly established SPC IP Court enjoys a national jurisdiction over technical civil IP cases as well as appeals of patent validity decisions.

While covering all 23 topics in the 2014 comparison study of the framework of the utility model systems, we propose to prioritize the following additional topics:

- Comparative study on inventive step, invalidation and infringement procedures. In particular, assessing the European Unitary Patent system and European Unified Patent Court concerning the differences between China and EU patent registration and enforcement of utility model patents.
- Contribution of utility model patents to innovation capacity in China and the EU.
- Determining to what extent topics of great concern for stakeholders in China before the amendment of China Patent Law (which came into force in 2021), are still valid, how the topics were addressed in the amendment, and the impact of those amendments.
- Reviewing how the EU implementing provisions and best practice could be used in China's legal system.

Finally, we will conduct **market-based research** amongst practitioners and key stakeholders on the 23 topics to compare with the China utility model system based on China research.¹

¹ See the Annexes, in the present report, the questionnaire for IP practitioners in China is referred to the practitioner questionnaire, and the questionnaire for various type of companies (domestic, foreign-invested, as well as Hongkong-, Macau- and Taiwan-invested) in China is referred to company questionnaire.

2. DETAILED FINDINGS

2.1 Comparison and Analysis of the utility model system in the target countries

In accordance with the scope of this report, Germany, France and Italy are selected as the jurisdictions under study and as representatives of the European utility model system². These jurisdictions will be compared and analyzed to China's utility model system. Since the purpose of this report is to update the 2014 report, the study focuses on legal points that have changed since 2014, including, but not limited to, China's patent subsidy policy (Section 2.1.3), the innovative experience and practice of administrative rulings on patent infringement disputes in China's patent invalidation system (Section 2.1.17, such as the formation of a "Joint Oral Hearing" mechanism for patent infringement and validation in Beijing), the upper limit of statutory damages and the new punitive damages system in the patent civil case. In addition, the volume of patent applications, reexaminations and invalidations are updated.

2.1.1 Duration of protection

The duration of protection for utility model patents in China is ten years from the filing date.

In Germany and Italy, the duration of protection for utility model patents is also ten years from the filing date, which has not changed since 2014. Moreover, German and Italian questionnaires show no signs or plan to change the duration of utility model protection in both countries at the current stage.

In France, starting from January 2020, the duration of protection for utility model certificates was extended from six years to ten years. This reform applies to all utility model certificates that have not reached the six-year protection period by the date of publication of the above-mentioned decree³.

This fact shows that the ten-year protection period, which is one of the basic elements of utility model protection in each country, has been widely accepted as being able to adequately protect the rights of the right holder.

2.1.2 Official costs

The cost of obtaining and maintaining utility model patent rights mainly consists of two parts, i.e., application and authorization fee, and an annual fee. According to the latest data published by the CNIPA (**Table 1** below), the cost of filing, granting and maintaining a utility model patent in China for a maximum validity period (10 years) without counting surcharges, reexamination fees, attorney's fees, and any form of fee waiver is approximately 11,750 RMB (approximately €1,540 at the current exchange rate⁴).

Official fees in China

Utility model patent application fees (unit: RMB)	Amount
I. Application Fee	500
II. Application surcharge	
- surcharge per claim from claim 11	150

² We conducted questionnaires for patent practitioners in the selected three European countries, which are differentiated by country as follows: German questionnaire, French questionnaire, and Italian questionnaire.

³ For utility model certificates in the 6th year of protection, the deadline for payment of the 7th year fee between January and the end of April 2020 can be postponed until May 11, 2020, and the late payment fee will be waived. Between May 11 and November 11, 2020, the patentee can still pay the 7th year fee, but a 50% late payment fee will be charged.

⁴ The exchange rate used here is: 1 Euro = 7.6444 RMB, 1 RMB ≈ 0.1308 Euro

Utility model patent application fees (unit: RMB)	Amount
- surcharge per page from page 31	50
- surcharge per page from page 301	100
III. Publication printing fee	50
IV. Priority claiming fee	80
V. Re-examination fee	300
VI. Patent registration fee	Suspended
VII. Annual fee	
1-3 years (per year)	600
4-5 years (per year)	900
6-8 years (per year)	1200
9-10 years (per year)	2000
Total cost (approximately)	11750

Table 1

In comparison, the above official fees for a Chinese utility model patent in 2014 were 11,900 RMB in total (approximately 1,430€ at the exchange rate in year 2014).

According to the fee schedule provided by DPMA ⁵, the application and maintenance fees for a German utility model patent are shown in **Table 2** below:

Official fees in Germany

Type of fees (unit: EUR)	Amount
Application fee (national application) for electronic filing	30
Application fee for filing on paper	40
International application	40
Fee for search request	250
Maintenance fees for the 4th to the 6th year of protection	210
- surcharge for late payment	50
Maintenance fees for the 7th to the 8th year of protection	350
- surcharge for late payment	50
Maintenance fees for the 9th to the 10th year of protection	530
- surcharge for late payment	50
Total cost (minimum):	1120

Table 2

According to the fee schedule provided by INPI ⁶, the application and maintenance fees for a French utility model patent are shown in **Table 3** below:

Official fees in France

Type of fees (unit: EUR)	Amount
Application fee	26
Grant Fee	90
Maintenance fee for the 2nd year of protection	38
Maintenance fee for the 3rd year of protection	38
Maintenance fee for the 4th year of protection	38

⁵ <https://www.dpma.de/english/services/fees/patents/index.html>

⁶ <https://www.inpi.fr/fr/comprendre-la-propriete-intellectuelle/le-brevet>

Type of fees (unit: EUR)	Amount
Maintenance fee for the 5th year of protection	38
Maintenance fee for the 6th year of protection	76
Maintenance fee for the 7th year of protection	96
Maintenance fee for the 8th year of protection	136
Maintenance fee for the 9th year of protection	180
Maintenance fee for the 10th year of protection	220
Total cost (minimum):	976

Table 3

According to the fee schedule provided by UIBM ⁷, the application and maintenance fees for an Italian utility model patent are shown as below:

Official fees in Italy

Type of fees (unit: EUR)	Amount
Fee for filing online	50
Fee for hard copies	120
Additional administrative fees (for the application filed on paper)	40
The fee due for the second 5-year period (maintenance fees are due from the fifth year after the date of filing the application)	500
Total cost (minimum):	550

Table 4

The comparison and changes in the corresponding costs for the European countries under study and China are shown in **Table 4** and **Figure 1** below.

**Changes of the total official fees compared to 2014
in the European countries under study and China**

Countries	Cost (in Euro)		Change rate
	Year 2014	Year 2021	
Germany	1120	1120	0.00%
France	844	976	15.64%
Italy	550	550	0.00%
China	1430	1540	4.67%

Table 5

⁷ <https://uibm.mise.gov.it/index.php/en/documents/202-news-english/2036279-patents>

**Changes of the total official fees compared to 2014
in the European countries under study and China**

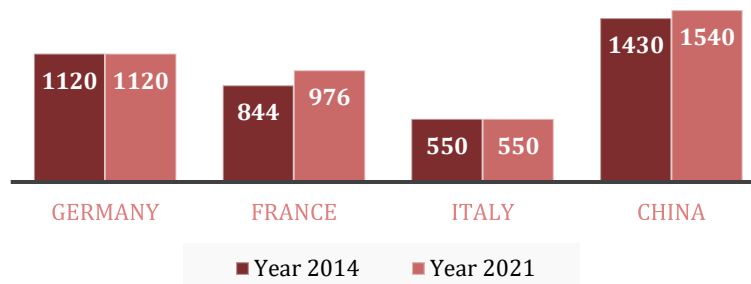


Figure 1

Although the current fees for obtaining and maintaining a utility model patent in China have slightly decreased (in total, RMB) from 2014, after adjusting for exchange rate differences, total fees have increased when converted to Euros. Compared with the European countries under study, the obtaining and maintaining fees in China are significantly higher.

However, according to the survey results published by CNIPA⁸, among the various views on the adjustment of patent fees, 61.8% of the surveyed patentees (mainly from enterprises, universities and research institutes) agreed that “lowering the annual fee will reduce the cost of patent portfolio and aggravate the patent bush effect (i.e., an increase in patent filings)”. In this report, it is also pointed out that, in recent years, the practice of increasing various patent-related fees in the United States has not only helped to improve the quality of patents, but also made it more expensive for applicants in foreign countries to extend their filings in the United States, thus forming what could be considered a form of patent trade protection.

Furthermore, the same report also showed that the surveyed patentees who suggested an ‘appropriate reduction’ and a ‘significant reduction’ in the number of payments were 42.7% and 15.2%, respectively. These surveyed patentees hold the opinions that the advantages brought by reducing the number of annual fee payments include: “reduction of the risk of expiration of annual patent fees” (67.8%); “reduction of the difficulty of managing annual patent fees” (67.6%); and “reduction of the cost of patent agents and other expenses” (61.0%).

Therefore, it is foreseeable that the total cost of filing and maintaining patents in China may continue to increase gradually to improve quality and reduce patenting volumes, and the number of annual fee payments is likely to decrease to mitigate expiration risks and portfolio management issues.

2.1.3 Monetary incentives for filing (reduced and subsidized costs)

The patent subsidy policy is one area of the study which has seen the most change since 2014. In past twenty years, as an important measure for the development of China’s patent industry, the patent subsidy policy played a role in promoting the increase of the public’s awareness of patents and the increase of the number of patent applications. It started from 1999 when Shanghai first issued “Subsidy Measures for Patent Application Fees and Attorney Fees in Shanghai” and “Implementation Regulations for Shanghai Patent Application Loans”. Such patent subsidies were financial incentives provided at regional level of governments,

⁸ 2020 China Patent Survey Report:

<https://www.cnipa.gov.cn/module/download/downloadfile.jsp?classid=0&showname=2020%E5%B9%B4%E4%B8%AD%E5%9B%BD%E4%B8%93%E5%88%A9%E8%B0%83%E6%9F%A5%E6%8A%A5%E5%91%8A.pdf&filename=b6bf2ef6f8b74b8bb0f954de18e4830e.pdf>

See page 96 of section 4.1 of Part III.

and generally focused on the fee funding during the application and patent grant procedures. Take Shanghai as an example, the subsidy covered part of patent application fees, patent grant fees, patent annual fees and patent attorney fees for both domestic and foreign patent applications. Though the effect of such patent subsidy policies on the quantity of patents was significantly positive, the effect on patent quality has always been controversial. As mentioned in the 2014 report⁹, with China's efforts to promote the patent quality improvement strategy, various types of financial support given to Chinese patent applicants from the central to local level are gradually reduced and eliminated by 2025.

On January 27, 2021, CNIPA issued the “Notice on Further Strictly Regulating Patent Application Behavior”¹⁰. This Notice specifies the requirements for adjusting the patent subsidy policy, as follows:

- “Before the end of June 2021, all levels of funding for patent application stages should be completely cancelled. All localities shall not provide financial support for patent applications in any form such as subsidies, rewards, etc. The scope of existing local funding should be limited to granted invention patents (including invention patents granted overseas through the PCT and other channels). The funding measures should be in the form of post-grant subsidies. The total amount of funding at all levels and types of funding received by the grantees shall not exceed 50% of the official fees paid for obtaining patent rights and shall not fund intermediary service fees such as annual patent fees and patent agency fees. For those who falsify and arbitrage patent funding, the allocated funds shall be recovered within a time limit. During the “14th Five-Year Plan” period, all localities will gradually reduce various types of financial support for patent grant and cancel them all by 2025. All localities should focus on optimizing the use and management of patent funding-related financial funds, strengthen patent protection and use, and focus on increasing support for subsequent transformation and use, administrative protection, and public services.”

While the Chinese government has cancelled various patent application funding policies, it still provides support for specific types of individuals and entities, i.e.:

- individuals with average monthly income of less than 5,000 RMB (60,000 RMB per year) in the previous year,
- enterprises with taxable income of less than 1,000,000 RMB in the previous year,
- institutions, social organizations, non-profit scientific research institutions - the possibility of paying reduced application fees (excluding publication printing fees and application surcharges), substantive examination fees for invention patent applications, annual fees (for ten years from the year of granting patent rights), and reexamination fees¹¹.

⁹ See page 19 of section 3.1.3.

¹⁰ https://www.cnipa.gov.cn/art/2021/1/28/art_75_156439.html

¹¹ See “Several Opinions of the State Intellectual Property Office on Further Improving the Quality of Patent Applications” (December 18, 2013), specifically see the term 2:

- “Improving general funding policies for patents. General funding policies for patents shall be oriented towards support for the small and the weak, with micro, small and medium-sized enterprises, public institutions, research institutions, and individual invention applicants as the primary recipients of funding with regard to the official charges of domestic and international patent review institutions and service fees of patent agencies. In accordance with the requirements of “authorization first and partial funding,” the general funding policies for patents shall be constantly adjusted and improved. Funding shall only be offered to a patent application which has obtained authorization. The total amount of funding at all levels that a funding recipient obtains shall not be higher than the sum of all official charges and patent agency service fees that the recipient has paid. To receive funding for a utility model patent application or a design patent application, a patent search analysis report issued by a patent agency or a patent information service institution, or a patent right evaluation report issued by the administrative patent department under the State Council shall be provided.”

As well, see “Patent Fee Reduction and Mitigation Measures” issued by CNIPA in 2016.

With these benefits, eligible patent applicants are able to reduce the official fees listed in section 2.1.2 by up to 85%. For example, an eligible low-income individual applicant can save a total of 9,945 RMB (approximately 1,270 € at the current exchange rate) reducing the cost of obtaining and maintaining a utility model patent down to approximately 1,800 RMB (approximately 230 € at the current exchange rate) in total for its entire 10-years period.

As shown by the data in the previous section, the cost of obtaining and maintaining a utility model patent is much higher for Chinese patentees than for the patentees in the European countries under study. Considering the actual income level and the extreme development imbalance among different regions in China, the above subsidies are reasonable and provide considerable benefits to patent applicants in poor or less economically developed regions.

In Germany, the government does not provide patent application subsidy policies. However, the annual fees will be reduced by half, if a declaration on the willingness to grant licenses to anyone is made, pursuant to Section 23(1) of the Patent Act.

In France, the government does not provide patent application subsidy policies either. Same as Germany, the fees due for maintaining patent rights can be reduced by 50% if the applicant states that a non-exclusive license is offered to the public.

In addition, a 50% reduction on the main procedural fees is granted:

- to natural persons,
- to SMEs (small entities) with less than 1,000 employees, whose capital is not more than 25% owned by an entity that does not meet these first conditions, and
- to non-profit organizations (NPOs) in the education or research sector.

A successful application of this status leads to a 50% reduction in fees for years 2 to 5 after the filing date, and a 25% reduction in the fees due for years 6 and 7.

According to surveyed French IP practitioners, there is a general consensus that the current subsidies provide strong incentives for small and medium-sized enterprises to file utility models.

In Italy, universities and research institutes, the Ministry of Defense, and Ministry of Agriculture need not pay official fees for filing utility model applications. The fees due for maintaining patent rights can be reduced by 50% if the applicant states that a non-exclusive license is offered to the public.

In the China Patent Law (2020 Amendment), Articles 50-52 provide for an open license declaration system, which draws on the non-exclusive license system used in the European countries under study, whereby the patentee could declare his/her willingness to grant open licenses to anyone. For the patent has been declared open license, the corresponding annual fees should be reduced (the specific fee reduction standard has not yet been published) during the open license period.

After taking into account the official fee relief, the cost for a Chinese patentee to apply for a utility model patent, obtain a grant and maintain the patent right is comparable to that of the European countries under study.

2.1.4 Electronic filing

No significant changes have been made to the electronic filing system in China. For a general patent application, the applicant has the choice of filing a paper application document or filing an electronic

application. However, for certain specific patent applications, such as a patent application requesting prioritized examination (see later section), it is mandatory to use the electronic filing system, and if a patent application requesting prioritized examination is an application based on paper documentation, this application should be converted to an e-filing application.

In addition, registered users of the patent e-filing system in China can pay patent fees using the Online Payment System for Patent Fees. The Online Fee Payment System is a system provided by the CNIPA through the China Patent e-filing website (<http://cponline.cnipa.gov.cn/>) which enables e-filing users to inquire about fees payable, generate orders, and complete payments using a third-party payment platform (Union Pay online payment). This online payment system is better than traditional payment methods (e.g., face-to-face payment using cash, check, or card; and bank and post office remittance), which simplifies the payment process, ensures the integrity of information, and can more accurately match funds and information. By using the online payment system, patent fee payers can complete the payment of patent fees without leaving home making the process completely electronic and payment results are known in real time. Based on its advantages and the popularity of the network, online payments are gradually replacing traditional payment methods.¹²

It should be noted, however, that electronic filing does not affect the patent application fee.

The questionnaires of the countries under study show that there are no significant improvements in the electronic filing system itself in Germany, while in France and Italy major improvements have been made to improve user convenience. Electronic filing can reduce the cost of filing compared to paper-based applications by a small amount (e.g., reductions of 10 Euros in Germany and 40 Euros in Italy).

2.1.5 Translation of materials

No changes have been made to the language requirements for filing patents in China. Pursuant to the provisions of the Patent Law and the Implementing Regulations of the Patent Law, patent application documents should be submitted in Chinese, and those not in Chinese will not be accepted by CNIPA and the applicant will be notified¹³.

In the European countries under study, it is possible to submit the application documents in any language first, but a translation into the language of the country of filing is required later.

According to the questionnaire of the countries under study, there is no discussion of the above issues or related adjustment plans. Some IP practitioners expressed that, adding acceptable languages might reduce patent applications' formalism and allow applicants to initiate the filing procedure more quickly, and greatly decrease filing costs. However, filing and translating the patent applications in local language increases examination procedure efficiency and simplifies third party reviews.

2.1.6 Duty of candor

Same as in year 2014, none of the countries under study have provisions in their laws providing penalties to applicants who fail to submit known prior art references in their utility model applications (referred to as the "duty of candor" requirement).

However, a patent executive of a Chinese enterprise who did not want to be named expressed that, in view of the fact that utility model applications account for a relatively high proportion of irregular applications and that utility model applications do not undergo substantive examination in China, from the perspective of saving public resources, i.e., avoiding public time and costs for invalidating irregular utility models, it should

¹² http://www.iprdaily.cn/article_7322.html

¹³ "Implementing Regulations of the Chinese Patent Law (2010)", State Council Order No. 569, Article 3, Article 39

be clearly stipulated in the China Patent Law that the applicant of a utility model should fully disclose the known prior arts to prove that the application is not an irregular application or a bad faith application.

2.1.7 Publication of application documents, and time to grant

(1) Date of publication of application documents

No change regarding the date of publication of utility model patents in China since 2014. If no reason for rejection is found in the preliminary examination of a utility model patent application, CNIPA should make the decision to grant the utility model patent right, issue the corresponding patent certificate, register and announce it at the same time. The utility model patent right takes effect from the date of publication.

In Germany, same as China, a utility model should be published for the first time on the granting date.

In France, a utility model could be published in 18 months after the date of filing.

In Italy, a utility model could be published in 18 months after the date of filing, in addition, it is also possible to request to expedite publication, i.e. after 90 days upon filing.

(2) Time to grant

In China, time to grant of utility model patents is relatively fast. Utility models in China must undergo four stages; application, acceptance, preliminary examination and authorization before being granted. No substantive examination is required. In the past two years, the average examination cycle of utility models has been approximately 6 months¹⁴.

In Germany, the granting time of utility model patent is 2-4 months from the date of filing, and if the application is free of defects and all relevant documents are perfect, the patent right can be granted in about 1 month at the shortest.

In France, the average grant time for utility model patents is approximately 27 months. If an application document is flawless and all related documents are complete, the shortest time to grant could be close to 20 months.

In Italy, the average grant time for a utility model patent is approximately 20-24 months. Similar to France, if an application document is flawless and all related documents are complete, the shortest time to grant could be close to 20 months.

(3) Prioritized examination

In recent years, China has further promoted the prioritized examination and pre-examination system¹⁵ in order to expediate the examination of patent applications in certain fields (e.g., new energy, internet technology, new-generation information technology, green technology and other key industrial technology fields etc.).

Prioritized examination was introduced in China to promote the optimization and upgrading of industrial structure, advance the implementation of the national intellectual property strategy and the construction of a strong intellectual property country, serve innovation-driven development, improve the patent examination

¹⁴ According to the data disclosed by CNIPA in the first half of 2020, the examination cycle of utility models is 6.4 months; in the first half of 2019, the review cycle of utility models is 6.2 months.

¹⁵ https://www.sohu.com/a/447292932_120309538

process, and provide prioritized examination for patent applications in accordance with the "Measures for the Administration of Prioritized Examination of Patents" of the State Intellectual Property Office.

At present, prioritized examination has covered the substantive examination of invention patent applications, the examination of utility model and design patent applications as well as the examination of patent reexamination and invalidation cases. As this system continues to be improved and the scale of its application continues to expand, public attention is also increasing.

The "Administrative Measures for Prioritized Examination of Invention Patent Applications" (hereinafter referred to as the "original Measures") was officially issued and implemented by the State Intellectual Property Office in August 2012, establishing a fast-track examination channel for certain technology fields supported by the State.

From 2013 to 2017, the number of requests for prioritized examination of patent applications in China grew rapidly at an average annual growth rate of more than 30%, reaching 18,855 in the year 2017 (see the figure 2 below).

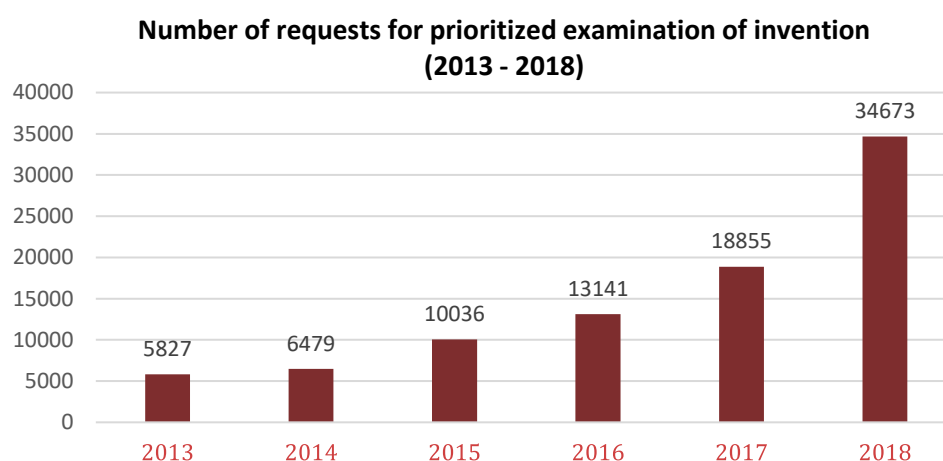


Figure 2

As the demands for prioritized examination continued to grow, SIPO initiated the revision of the "original Measures" and issued and implemented the "Administrative Measures for Prioritized Examination of Patents" (hereinafter referred to as the "new Measures") in August 2017. Compared with the "original Measures", the "new Measures" have expanded the scope of application for prioritized examinations, improved the conditions of application, simplified the procedures and optimized the processing procedures.

In 2018, the State Intellectual Property Office accepted 34,673 requests for prioritized examination of patent applications for inventions, utility models and designs. Among them, 26,264 requests for priority examination of invention patent applications were accepted, representing a year-on-year increase of 39.3% and accounting for 75.7% of the total number of accepted cases; 8,035 and 374 requests for priority examination of utility model and design patent applications were accepted respectively, accounting for 23.2% and 1.1% of the total number of accepted cases.

(4) Rapid Pre-examination

Rapid pre-examination refers to the pre-examination services provided by the local Intellectual Property Protection Center ¹⁶ on patent application for enterprises that meet the requirements of the corresponding

¹⁶ http://www.szipsr.org.cn/szipr/ywzn_123183/bhzx/content/post_239142.html

industries. CNIPA conducts expedited examination of patent applications that have passed the pre-examination by local IPR offices.

Applicants who meet the requirements of patent pre-examination can apply for the service. The patent application is pre-examined by local IPR offices and then submitted to CNIPA after passing the pre-examination. Such patent pre-examination service can shorten the examination cycle for invention patents down to 3-6 months and 1 month for utility model patents ¹⁷.

Please see the following **Table 6** for a comparison of prioritized examination and rapid pre-examination.

Comparison of prioritized examination and rapid pre-examination

	Prioritized Examination	Rapid Pre-examination
Type of application	invention, utility model, and design patent application; re-examination and invalidation request.	invention, utility model, and design patent application; re-examination; invalidation request and patent right evaluation report.
Receiving authority	CNIPA	local Intellectual Property Protection Center
Decision time	within 5 working days	decided immediately upon request
Applicable subject	enterprises, institutions and Individuals	enterprises and institutions
Pre-filing	no pre-filing required	the applicant should complete a pre-filing at the local IPRs office, and the pre-filing time usually takes 1 to 4 months; the production, research and development or business direction of the filed enterprise should involve the type of industry filed supported by the corresponding local IP office.
Technical Fields	involving energy conservation and environmental protection, a new generation of information technology, biology, high-end equipment manufacturing, new energy, new materials, new energy vehicles, intelligent manufacturing and other key industry fields support by state; involving the Internet, big data, cloud computing and other fields and technology or product updates at a rapid rate.	involving the technical field supported by the corresponding local IPRs office.
Time of submission	for an invention patent application, the request should be submitted after entering the substantive examination; for utility model and design applications, the request should be	before filing the application to the CNIPA.

¹⁷ <https://www.lexology.com/library/detail.aspx?g=d013615d-3757-42b6-8da8-98e3dfae6ae3>

Prioritized Examination		Rapid Pre-examination
	submitted after filing and paying the application fee.	
Fees	the agency fee is 1500 RMB, for the second material - prior art, if the search report issued by the Patent Office Search Center is required, the official fee is 1500 RMB.	pre-filing fee is 1000 RMB; and the agency fee is 500 RMB pro case.
Time of grant	7-12 months for invention, 2 months for utility model and design application after passing the prioritized examination.	3-6 months for invention, 2 months for utility model and 1 month for design application after passing the rapid pre-examination.
Other specified time	patent reexamination cases will be concluded within 7 months; invention and utility model patent invalidation cases will be concluded within 5 months; design invalidation cases will be concluded within 4 months.	there is no clear provision, the actual time is similar as that of prioritized examination.
Other	other circumstances eligible for prioritized application: 1. involving the industry fields encouraged by the provincial and municipal governments; 2. the patent applicant or the requestor of the reexamination is ready to implement or has started to implement, or there is evidence that others are implementing their inventions; 3. other prioritized examination is required for the national interest or public interest of great significance.	the rapid pre-examination could not be applied for the following cases: 1. international patent applications filed under the PCT; 2. international PCT applications that enter the national phase in China; 3. patents for utility models and inventions filed by the same applicant for the same invention creation on the same day in accordance with Article 9, paragraph 1 of the Patent Law; 4. divisional applications; 5. applications requiring confidential examination under Article 7 of Implementing Regulations of the Patent Law; 6. application with low-quality issues; 7. involving national security or vital interests; 8. other circumstances specified in laws and regulations.

Table 6

2.1.8 Submission of physical models

None of China and European countries under study has a requirement to submit physical models. This has not changed since year 2014. Germany previously required applicants to submit physical models of the solution described in a utility model application, this is no longer required.

2.1.9 Patentable subject matters

(1) Protection conditions

In China, the conditions for obtaining utility model patent protection have remained unchanged since 2014. According to the China Patent Law, a utility model granted with patent rights shall possess novelty, inventive step and practicality¹⁸.

(2) Subject matters

China's Patent Law stipulates that a utility model is a new technical solution for the shape, structure or combination thereof of a product that is suitable for practical use¹⁹. In addition, the China Patent Law and its implementing regulations and examination guidelines provide exceptions to the protection of utility model patents, as detailed in the following **Table 7**.

Non-patentable subject matters of utility models in China

Subject matters	Article	Legal Basis
Processes (in general)	China (PL2)	Article 2: Utility model refers to a new technical solution for the shape, structure or combination thereof of a product that is suitable for practical use. (China Patent Law (2020))
Inventions inconsistent with the public interest, order, policy and/or morality	China (PL5)	Article 5: The inventions and creations that violate the law, social morality or harm the public interest should not be granted patent rights. The inventions and creations, which are obtained or use genetic resources in violation of the provisions of laws and administrative regulations and are completed in reliance on such genetic resources, should not be granted patent rights. (China Patent Law (2008 Amendment))
Schemes, rules and methods for mental/intellectual activities	China (PL25)	Article 25: Rules and methods of intellectual activity should not be granted patent rights. (China Patent Law (2008 Amendment))
Schemes, rules and methods for playing games	China (PL25, PE2.1.4.2);	Article 25: Rules and methods of intellectual activity should not be granted patent rights. (China Patent Law (2008 Amendment)) Rules and methods of various games and entertainment should not be granted patent rights. (China Patent Law (2020 Amendment))
Substances obtained by means of nuclear transformation	China (PL25)	Article 25: Substances obtained by the means of nuclear transformation should not be granted patent rights. (China Patent Law (2008 Amendment))
Scientific theories	China (PL25, PE2.1.4.2)	Article 25: Rules and methods of intellectual activity should not be granted patent rights. (China Patent Law (2008 Amendment)) Mathematical theory should not be granted patent rights. (Patent Examination Guidelines (2020 Amendment))
Scientific discoveries	China (PL25)	Article 25: Scientific discoveries should not be granted patent rights. (China Patent Law (2008 Amendment))

¹⁸ Article 22 of the China Patent Law (2020 Amendment)

¹⁹ Article 2 of the China Patent Law (2020 Amendment)

Subject matters	Article	Legal Basis
Mathematical methods	China (PL25, PE2.1.4.2)	Article 25: Scientific discoveries should not be granted patent rights. (China Patent Law (2008 Amendment)) Mathematical theories and conversion methods (Patent Examination Guidelines (2020 Amendment))
Aesthetic creations	China (PL25)	Article 25: Designs for graphic printed matter with patterns, colors or a combination of the two that primarily function as signs. (China Patent Law (2008 Amendment))
Schemes, rules and methods for doing business	China (PL2, PL25, PE 2.1.4.2)	Management methods and systems for organization, production, commercial implementation and economy. Claims involving business models that contain both the content of business rules and methods and technical features should not be excluded from patentability pursuant to Article 25 of the Patent Law. (Patent Examination Guidelines (2020 Amendment))
Presentations of information	China (PL25, PE2.1.4.2)	Article 25: Rules and methods of intellectual activity should not be granted patent rights. (China Patent Law (2008 Amendment)) Methods of presenting information should not be granted patent rights. (Patent Examination Guidelines (2020 Amendment))
Schemes, rules and methods for programs for computers	China (PL25, PE2.1.4.2)	Article 25: Rules and methods of intellectual activity should not be granted patent rights. (China Patent Law (2008 Amendment)) The computer program itself should not be granted patent rights. (Patent Examination Guidelines (2020 Amendment))
Program logic on which programs for data processing systems are based (the verbalized algorithm of a software)	China (PL25, PE2.1.4.2)	Article 25: Rules and methods of intellectual activity should not be granted patent rights. (China Patent Law (2008 Amendment)) The language of computers and the rules of computing should not be granted patent rights. (Patent Examination Guidelines (2020 Amendment))
Certain methods for treatment of the human body by surgery or therapy (as distinct from products, including substances and compositions, for use in any of these methods)	China (PL25)	Article 25: Diagnosis and treatment methods of diseases should not be granted patent rights. (China Patent Law (2008 Amendment)) 4.3 Diagnostic and therapeutic methods for diseases Diagnosis and treatment methods of diseases refer to the process of identifying, determining or eliminating the causes or foci of diseases by using a living human or animal body as the direct object of implementation. (Patent Examination Guidelines (2020 Amendment))
Certain methods for treatment of animals by surgery or therapy (as distinct from products,	China (PL25)	Article 25: diagnosis and treatment methods of diseases should not be granted patent rights. (China Patent Law (2008 Amendment)) 4.3 Diagnostic and therapeutic methods for diseases

Subject matters	Article	Legal Basis
including substances and compositions, for use in any of these methods)		Diagnosis and treatment methods of diseases refer to the process of identifying, determining or eliminating the causes or foci of diseases by using a living human or animal body as the direct object of implementation. (Patent Examination Guidelines (2020 Amendment))
Diagnostic methods practiced on humans (as distinct from products, including substances and compositions, for use in any of these methods)	China (PL25)	Article 25: Diagnosis and treatment methods of diseases should not be granted patent rights. (China Patent Law (2008 Amendment)) 4.3 Diagnostic and therapeutic methods for diseases Diagnosis and treatment methods of diseases refer to the process of identifying, determining or eliminating the causes or foci of diseases by using a living human or animal body as the direct object of implementation. (Patent Examination Guidelines (2020 Amendment))
Diagnostic methods practiced on animals (as distinct from products, including substances and compositions, for use in any of these methods)	China (PL25)	Article 25: diagnosis and treatment methods of diseases should not be granted patent rights. (China Patent Law (2008 Amendment)) 4.3 Diagnostic and therapeutic methods for diseases Diagnosis and treatment methods of diseases refer to the process of identifying, determining or eliminating the causes or foci of diseases by using a living human or animal body as the direct object of implementation. (Patent Examination Guidelines (2020 Amendment))
Microbiological processes	China (PL2)	Article 2: Utility model refers to a new technical solution for the shape, structure or combination thereof of a product that is suitable for practical use. (China Patent Law (2008 Amendment))
Microbiological products	China (PL2)	Microorganisms that exist in nature without any technical treatment by man are not patentable because they are scientific discoveries. Microorganisms themselves are patentable objects only if they have been isolated into pure cultures and have a specific industrial use. (Patent Examination Guidelines (2020 Amendment))
Compositions containing microorganisms; nucleic acids	China (PL5)	Article 5: The inventions and creations that violate the law, social morality or harm the public interest should not be granted patent rights. The inventions and creations, which are obtained or use genetic resources in violation of the provisions of laws and administrative regulations and are completed in reliance on such genetic resources, should not be granted patent rights. (China Patent Law (2008 Amendment)) Material taken from human body, animal, plant or microorganism containing genetic functional units is the carrier of genetic functional units, including both the whole organism and some parts of the organism, such as organs, tissues, blood, body fluids, cells, genome, genes, DNA or RNA fragments, etc. (Patent Examination Guidelines (2020 Amendment))

Subject matters	Article	Legal Basis
“Essentially” biological processes for the production of plants and animals	China (PL2±, PE2.1.4.4)	Article25(2): Patents may be granted for production methods of animal and plant varieties. However, the production methods mentioned here refer to non-biological methods and do not include methods for producing animals and plants that are mainly biological. (Patent Examination Guidelines (2020 Amendment))
Certain plant varieties	China (PL2±, PL25)	Article 25: Animal and plant varieties should not be granted patent rights. (China Patent Law (2008 Amendment))
Animal varieties	China (PL25)	Article 25: Animal and plant varieties should not be granted patent rights. (China Patent Law (2008 Amendment))
Microstructure of a substance (e.g., crystalline structure of substance, nano-structure) that is part of a technical solution	China (PL2±, PE1.2.6.2)	The molecular structure, components, metallographic structure, etc. of a substance are not part of the construction of the product to which a utility model patent gives protection. (Patent Examination Guidelines (2020 Amendment))
Design of an apartment, campus planning or the residential district planning, and the design of an overpass	China (PL2, PE)	According to Article 2(3) of the Patent Law, a utility model patent protects only products. Said product shall be an entity with definite shape and structure and occupying a certain space, manufactured by industrial methods. (Patent Examination Guidelines (2020 Amendment))
Certain substances like liquids and compositions and components of substances under certain conditions	China (PL2)	Products without definite shape, such as gaseous, liquid, powdered, granular substances or materials, the shape of which cannot be used as the shape feature of the utility model product. (Patent Examination Guidelines (2020 Amendment))
Certain sets of equipment or complex systems with multiple devices	China (PL2)	Article 2: The utility model referred to in the Patent Law refers to a new technical solution suitable for practical use of the shape, structure or combination thereof of the product. (China Patent Law 2020) The structure of a product refers to the arrangement, organization and interrelation-ship of the various components of the product. The structure of the product can be mechanical structure or line structure. Mechanical structure refers to the relative position relationship, connection relationship and necessary mechanical fit relationship, etc. of the components that constitute the product; line structure refers to the determined connection relationship between the components that constitute the product. (Patent Examination Guidelines (2020 Amendment))

Table 7

The non-patentable subject matters stipulated in the Patent Law of the European countries under study are shown in the **Table 8** below:

Non-patentable subject matters of utility models in Germany, France and Italy

Subject matters	Germany	France	Italy	Related law section/article
Processes (in general)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	DE: §2 GebrMG; IT: Art. 82+86CPI;
Inventions inconsistent with the public interest, order, policy and/or morality	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	DE: §2 GebrMG; IT: Art. 82+86CPI; FR: L611-17 + L611-2 CPI
Schemes, rules and methods for mental/intellectual activities	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	DE: §1 GebrMG; IT: Art. 82+86CPI; FR: L611-10 CPI
Schemes, rules and methods for playing games	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	DE: §1 GebrMG; IT: Art. 82+86CPI; FR: L611-10 CPI
Substances obtained by means of nuclear transformation	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	IT: Art. 82+86CPI
Scientific theories	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	DE: §1 GebrMG; IT: Art. 82+86CPI; FR: L611-10 CPI
Scientific discoveries	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	DE: §1 GebrMG; IT: Art. 82+86CPI; FR: L611-10 CPI
Mathematical methods	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	DE: §1 GebrMG; IT: Art. 82+86CPI; FR: L611-10 CPI
Aesthetic creations	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	DE: §1 GebrMG; IT: Art. 82+86CPI; FR: L611-10 CPI
Schemes, rules and methods for doing business	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	DE: §1 GebrMG; IT: Art. 82+86CPI; FR: L611-10 CPI
Presentations of information	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	DE: §1 GebrMG; IT: Art. 82+86CPI; FR: L611-10 CPI
Schemes, rules and methods for programs for computers	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	DE: §1 GebrMG; IT: Art. 82+86CPI; FR: L611-10 CPI
Program logic on which programs for data processing systems are based (the verbalised algorithm of a software)	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	DE: §1 GebrMG; IT: Art. 82+86CPI; FR: L611-10 CPI
Certain methods for treatment of the human body by surgery or therapy (as distinct from products, including substances and compositions, for use in any of these methods)	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	DE: §2 GebrMG; IT: Art. 82+86CPI; FR: L611-16

Subject matters	Germany	France	Italy	Related law section/article
Certain methods for treatment of animals by surgery or therapy (as distinct from products, including substances and compositions, for use in any of these methods)	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	DE: §2 GebrMG; IT: Art. 82+86CPI; FR: L611-16
Diagnostic methods practiced on humans (as distinct from products, including substances and compositions, for use in any of these methods)	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	DE: §2 GebrMG; IT: Art. 82+86CPI; FR: L611-16
Diagnostic methods practiced on animals (as distinct from products, including substances and compositions, for use in any of these methods)	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	DE: §2 GebrMG; IT: Art. 82+86CPI; FR: L611-16
Microbiological processes	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	DE: §2 GebrMG; IT: Art. 82+86CPI; FR: L611-19
Microbiological products	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	DE: §2 GebrMG; IT: Art. 82+86CPI; FR: L611-19
Compositions containing microorganisms; nucleic acids	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	IT: Art. 82+86CPI;
"Essentially" biological processes for the production of plants and animals	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	DE: §2 GebrMG; IT: Art. 82+86CPI; FR: L611-19
Certain plant varieties	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	DE: §2 GebrMG; IT: Art. 82+86CPI; FR: L611-19
Animal varieties	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	DE: §2 GebrMG; IT: Art. 82+86CPI; FR: L611-19
Microstructure of a substance (e.g., crystalline structure of substance, nano-structure) that is part of a technical solution	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	IT: Art. 82+86CPI;
Design of an apartment, campus planning or the residential district planning, and the design of an overpass	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	[DE: These are not excluded per se but to be granted must still be technical, new and inventive, the mere "design" cannot be protected]

Subject matters	Germany	France	Italy	Related law section/article
				[IT: These are not excluded per se but to be granted must still be technical, new and inventive, the mere "design" cannot be protected]
Certain substances like liquids and compositions and components of substances under certain conditions	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Certain sets of equipment or complex systems with multiple devices	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	

Table 8

Compared to year 2014, no adjustments have been made to the subject matter of utility models in China and the European countries under study. The questionnaires for the countries under study show that there is no discussion and/or plan on adjusting the subject matter in the corresponding countries.

2.1.10 Novelty, grace period

(1) Novelty

Since 2014, the definition of novelty in China's Patent Law has not changed. Novelty means that an invention or utility model is not prior art; nor has any entity or individual filed an application for the same invention or utility model with the patent administration department of the State Council before the filing date and recorded in the patent application documents or patent documents published after the filing date. The term "prior art" refers to a technology that is known to the public at home or abroad before the filing date.

Similar to China, novelty is judged according to the "absolute novelty" standard in France and Italy.

In Germany, novelty is judged by the "relative novelty" standard, i.e., prior use outside Germany is not considered as prior art²⁰.

(2) Grace period for non-loss of novelty

The Patent Law in China stipulates that if an invention application meets certain conditions, the invention application shall not lose its novelty if the invention disclosures were made within six months prior to the filing date, and the specific circumstances include: ²¹

- in the event of a state of emergency or extraordinary circumstances in the country, the first disclosure was for the purpose of public interest;
- first exhibited at an international exhibition sponsored or recognized by the China's government;
- the first presentation at a prescribed academic or technical conference; and

²⁰ <https://www.dpma.de/gebrauchsmuster/faq/index.html>

See the question "Was ist der Stand der Technik? (what is the prior art?)"

²¹ Article 24 of the China Patent Law (2020 Amendment), the grace period for non-loss of novelty also applies to invention patents.

- d) the content is disclosed by others without the consent of the applicant.

Article 24 of the China Patent Law (2020 Amendment) provides a new circumstance of non-loss of novelty, i.e., if an invention is disclosed for the first time for the purpose of public interest in events of national emergency or extraordinary circumstances, and a corresponding patent application is subsequently filed within six months, this patent application shall not lose novelty due to the early disclosure. In other words, the new China Patent Law encourages inventors to enjoy a six-month grace period for disclosing their inventions prior to filing a patent application for public interest purposes in a national emergency, regardless of the manner of disclosure.

In Germany, a grace period of six months is allowed if the prior use disclosure was made by the applicant.

In France, length of a grace period could be 6 months. A grace period is not possible in the case of self-disclosure. However, this applies to cases of disclosure resulting from obvious abuse from the inventor.

No grace period is available in Italy.

According to the questionnaires for the European countries under study, there is no discussion and/or plan to adjust the novelty judgement standard and grace period in each country under study.

2.1.11 Search Report and Examination

(1) Preliminary Examination and Search Report

In China, preliminary examination procedures have not changed since 2014. During preliminary examination, the examiner examines whether the patent application meets both the formal requirements and the obvious violation of the substantive requirements of patentability²². In addition, the examiner also examines whether the utility model meets the novelty and utility requirements. If the application involves an irregular application, such as an obvious copy of prior art or a repeated filing of a patent application that is obviously substantially the same, the examiner will review and determine whether the utility model patent application is obviously not new over prior art.

In the European countries under study, each country uses a similar preliminary examination system, i.e., examining the formal defects and partial substantive defects without searching prior art.

(2) Re-examination

Re-examination procedures for utility models have not changed in China since 2014. The Re-examination request submitted by the applicants are accepted and examined by the Re-examination and Invalidation Department of the State Patent Office (formerly the Patent Review Board)²³.

²² In China, preliminary examination means examining whether the patent application has the documents and other necessary documents specified in Article 26 or Article 27 of the Patent Law, whether these documents conform to the prescribed format, and examining the following: whether the utility model patent application clearly falls under the circumstances specified in Articles 5 and 25 of the Patent Law, whether it is not in conformity with Articles 18, 19(1) and 20(1) of the Patent Law or the Rule 16 to Rule 19, Rule 21 to Rule 23 of the provisions of the Implementing Regulations, whether it is clearly not in conformity with Article 2(3), Article 22(2), (4), Article 26 (3), (4), Article 31(1), Article 33 of the Patent Law or Rule 20, Rule 43(1) of the Implementing Regulations, whether in accordance with the provisions of Article 9 of the Patent Law cannot obtain Patent rights.

²³ On February 14, 2019, the former Patent Re-examination Board of the State Intellectual Property Office was merged into CNIPA, and no longer retains the Patent Re-examination Board. After February 14, 2019, the Patent Re-examination

In Germany, there is Re-examination procedure for utility models, and this Re-examination procedure could be carried out at the cancellation procedure stage.

In Italy, there is also Re-examination procedure for utility models, and this procedure could be carried out during litigation or invalidation proceedings.

Survey respondents in the above two countries expressed that the reexamination procedure of utility models is helpful to protect the rights and interests of applicants, since it allows utility models which should not have been granted (e.g., lack novelty with respect to prior art), to be cancelled with a cost-effective proceeding.

In contrast, there is no Re-examination procedure for utility models in France. Survey respondents in France expressed that a Re-examination procedure of utility models would not make any sense as there is no substantial examination for utility models, in fact, such Re-examination procedure may defeat the purpose of the certificate, i.e., to speed up the procedure and reduce associated costs.

2.1.12 Patent Evaluation Reports

Patent evaluation reports for utility model patent rights have not changed since 2014. A patentee or interested party may request the CNIPA to produce a patent right evaluation report.

Evaluation reports for utility model patent rights involve eleven aspects²⁴. Such evaluation reports could be used as evidence to the people's court or department managing patent work to hear and handle patent infringement disputes. This is typically used when assessing possible suspension of relevant dispute procedures. The patent right evaluation report is not an administrative decision, so the patentee or the

Board was renamed as the Department of Re-examination and Invalidation Department of CNIPA, which no longer has administrative qualifications, and the Re-examination request is filed to CNIPA. It is reported that the name change of the patent Re-examination acceptance body has not substantially affected the acceptance and examination process of patent Re-examinations in China.

²⁴ Part V of the "Patent Examination Guide (2020)", Chapter 10, Patent Evaluation Report

Content involved in an evaluation report of patent for a utility model includes:

- 1) whether the utility model falls into the scope of subject matter which is nonpatentable according to Article 5 or Article 25, as to the evaluation standard, Chapter I of Part II shall apply;
- 2) whether the utility model falls into objects prescribed in Article 2(3), as to the evaluation standard, Chapter 2, Section 6 of Part I shall apply;
- 3) whether the utility model possesses practical applicability prescribed in Article 22(4), as to the evaluation standard, Chapter 5, Section 3 of Part II shall apply;
- 4) whether the description of the utility model sufficiently discloses the claimed subject matter according to Article 26(3), as to the evaluation standard, Chapter 2, Section 2.1 of Part II shall apply;
- 5) whether the utility model possesses novelty prescribed in Article 22(2), as to the evaluation standard, Chapter 6, Section 3 of Part IV shall apply;
- 6) whether the utility model possesses inventive step prescribed in Article 22(3), Chapter 6, Section 4 of Part IV shall be applied concerning the evaluation standard;
- 7) whether the utility model is in conformity with Article 26(4), Chapter 2, Section 3.2 of Part II shall be applied concerning the evaluation standard;
- 8) whether the utility model is in conformity with Rule 20(2), Chapter 2, Section 3.1.2 of Part II shall be applied concerning the evaluation standard;
- 9) whether the amendment to the utility model patent is in conformity with Article 33, Chapter 2, Section 8 of Part I and Chapter 8, Section 5.2 of Part II shall be applied concerning the evaluation standard;
- 10) whether the divisional utility model patent is in conformity with Rule 43(1), Chapter 6, Section 3.2 of Part II shall be applied concerning the evaluation standard; and
- 11) whether the utility model is in conformity with Article 9, Chapter 3, Section 6 of Part II shall be applied concerning the evaluation standard.

interested party cannot initiate administrative reconsideration or administrative litigation against the conclusions of the evaluation report.

In Germany, there is no similar evaluation report mechanism. Survey respondents in Germany expressed that:

- Such evaluation report for utility model patent rights is not helpful and positive, since if a utility model is litigated, it is likely the alleged infringer will almost invariably request a cancellation of the utility model. In Germany, the civil court already has discretion on whether to proceed or wait for the results of the cancellation (§19 GebrMG) and the courts will almost invariably receive founded arguments on the validity from the two sides, on which they can base their decision. A further “provisional” report, which is however not final, is unlikely to provide much more material for the court to make their decision.

Similar to Germany, there is no evaluation report mechanism in Italy. As for the use of the evaluation report, survey respondents in Italy also hold the similar opinion, i.e., when a utility model is litigated, in general, the alleged infringer will choose to directly request an invalidation of the utility model so that validity of the patent rights can be evaluated, and a final decision made by the court.

In France, there is a similar evaluation report mechanism, however, such patent evaluation report is generally used when a judicial action is initiated. Survey respondents in France believe that such evaluation report will be required in any case when filing a legal action, in addition, this evaluation report can also provide useful information when considering converting a utility model into a patent.

2.1.13 Third-party Observations

There is no third-party observation mechanism for utility model patent applications in China, since utility models are only published when they have been granted patent rights.

Similarly, in Germany and Italy, there is no third-party observation mechanism for utility model patent applications either. Survey respondents in these two countries hold same opinions on third-party observations, i.e.:

- Since Germany and Italy do not have substantive examination of utility models, such third-party observations would likely have little use for the patent office. If a third party is concerned of a potential utility model registration and has good arguments against it, the cancellation proceedings are a cost-effective manner of proceeding against the utility model.

France has a procedure for third-party observations for utility model patent applications. A third party could submit the observation at the publication stage. Such observation should not be submitted anonymously. The applicant has three months from the notification of the third-party observation to file by writing their response or a new draft of the claims. This period can be renewed once, on request of the applicant. Surveyed respondents in France expressed that

- Such third-party observations can allow the applicant to overcome a lack of precision regarding his invention; thus, preventing a weak patent from being granted and facing future legal actions. However, these observations do not have any impact on the course of the procedure as they simply allow the applicant to justify themselves. Therefore, such third-party observations are rarely submitted to the French Patent Office.

2.1.14 Amendments

Since 2014, no changes have been made to China's Patent Law regarding the amendment of utility model patent applications. The applicant may amend the patent application documents but certain requirements should be met such as the date of filing the amendment, should be within two months from the filing date, and the amendment should not go-beyond the protection scope recorded in the original specification and claims ²⁵.

After being granted patent rights, the utility models could only be further amended during invalidation procedures.

In the European countries under study, the utility model application documents could be modified freely before publication, and after grant, the protection scope can still be amended with some limitations within the protection scope of the original application.

2.1.15 Inventive step

(1) Requirement of inventive step for a utility model patent

No change has been made to China's Patent Law since 2014. Inventive step of a utility model means that, as compared with prior art, the utility model has substantive features and represents progress.

According to Article 22, Paragraph 3 of the Patent Law, in contrast to utility models, inventive step of an invention means that the invention has prominent substantive features and represents notable progress as compared with prior art. Therefore, the requirement of inventive step for a utility model patent shall be lower than that for an invention ²⁶.

In Germany, although the formulation of the Patent Law is different, i.e., "inventive activity" for inventions and "inventive step" for utility models, established case-law indicates that there are no differences in the level of requirement of inventive step.

In France, there is no difference between the requirements of inventive step for utility model and inventions, i.e., the claimed technical scheme should "not be obvious to a person skilled in the art".

In Italian Patent Law, Article 48 defining inventive step for patents recites

- An invention is considered as implying an inventive activity if, for a person who is an expert in the field, it is not evident from the prior art. If the prior art includes documents as per paragraph 3 under Article 46, those documents are not taken into consideration for the assessment of the inventive activity".

Article 82 defining patentability criteria for utility models recites

- 1. Patents for utility models may be granted for new models apt to provide particular efficacy or convenience of application or use for machines, or parts thereof, instruments, tools or functional objects in general, such as new models consisting of particular conformations, arrangements, configurations or combinations of parts.

²⁵ Article 33 of the China Patent Law (2020 Amendment); Rule 51 of the Implementing Regulations of the Patent Law.

²⁶ Part IV, Chapter 6 of the Patent Examination Guide (2020), Some Provisions Concerning the Examination of Utility Models in Invalidation Procedure. It should be noted that, for the examination of utility model at the application stage, the examiner does not examine inventive step, but only novelty and practicability.

- 2. A patent for machines as a whole does not include protection of the individual parts.
- 3. The effects of a patent for utility model extend to the models that achieve the same utility, provided that they use the same innovative concept.

According to above Articles the legal basis of the requirements of inventive step for both utility model and invention is different in Italy. The case law and doctrine on how precisely those different inventive thresholds differ from each other is not conclusive. In general, however, the inventive step threshold for a utility model is lower than that for a patent.

As for the above difference, survey respondents in Germany expressed that the definition of the inventive step already requires complex case-law and is often already very much case-specific, and thus such a definition of a further level of inventive step increases complexity and generates confusion in the public on what is inventive and what not.

Similarly, survey respondents in France hold a similar opinion, i.e. the above difference is not necessarily reasonable as the protection brought by utility models is the same as the one brought by inventions, and the freedom to operate is equally restricted. Therefore, the substantive requirements should not be lower for utility models in case of legal actions.

In comparison, the survey respondents in Italy pointed out that utility models are not provided to solve new technical problems (this is provided by invention patents), in particular, the innovation claimed in a utility model only has to improve the ease of use and/or the efficiency of a known solution. And thus, in Italy, the prevailing jurisprudence instead believes that there is a qualitative difference between patent for invention and patent for utility model. And it is reasonable for a utility model patent to be granted with a lower level of requirement on non-obviousness. The examination procedure of a utility model patent is quicker than an invention patent (the examiner took less time in prior art search). It is important to get protection of an idea/product as soon as possible.

(2) Procedures of determining inventive step for a utility model patent

The examination of inventive step of a utility model patent in China only occurs at the invalidation request stage.

When determining inventive step for a utility model, all the technical features of a technical solution, including both composition features and process features, shall be taken into account. Relevant aspects of examination of inventive step for a utility model, covers the concept of inventive step, examination principles for inventive step, examination criteria, and the assessment of inventive step for various types of inventions/creations.

In Particular, the difference in requirement of inventive step for a utility model and for an invention is mainly indicated by whether there exists a technical teaching in the prior art. In determining whether there exists a technical teaching in the prior art, a utility model differs from an invention in the following two aspects.

A. Field of prior art references

For an invention, the examiner shall consider not only the technical field to which the invention belongs, but also the proximate or relevant technical fields, and those other technical fields in which the problem to be solved by the invention would prompt a person skilled in the art to look for technical means.

However, for a utility model, the examiner will normally focus on the technical field to which the utility model belongs. Where there is a clear technical teaching, for example, where there is an explicit description in the

prior art, to prompt a person skilled in the art to look for technical means in a proximate or relevant technical field, the proximate or relevant technical field may be taken in account.

B. Number of prior art references

For an invention application, one, two or more prior art references may be cited to assess its inventive step.

For a utility model, normally one or two prior art references may be cited to assess its inventive step. Where the utility model is made just by juxtaposing some prior art means, the examiner may, according to the circumstance of the case, cite more than two prior art references to assess its inventive step.

In the European countries under study, the examination of inventive step for a utility model patent also only occurs in the invalidation procedure. However, in these countries, when determining inventive step of a utility model, it may refer to multiple possibly related technical fields, and the number of references also will not be considered as a reference standard.

2.1.16 Parallel filings and double granting

Regarding parallel filings and double granting, there has been no change since 2014.

In China's Patent Law, double-granting is expressly prohibited, i.e., the same invention cannot be granted twice. Therefore, for utility model and invention patents filed by the same applicant for the same invention on the same day, the patent right for the invention could be granted only when the applicant declares to abandon the previously granted patent right of the utility model²⁷.

In all European countries under study, parallel filings of a utility model and a corresponding invention are allowable. In France²⁸ and Italy, the parallel utility model and invention should be filed on the same day. In Germany, it is possible to "branch-off" a utility model from a patent application at any time, as long as the patent application is pending.

Survey respondents in all countries under study hold positive opinions on the parallel filings, and believe that such a mechanism could bring advantages. In particular, in the feedback questionnaire, the survey respondents in Germany expressed that

- the utility model can be registered very quickly (a couple of months, compared to likely years for the grant of an invention patent) and thus can be immediately enforced. Moreover, it is possible to have a broad patent and "branch-off" specific utility models to address specific infringement products. This has the advantage of reducing the likelihood of prior art and discussion on the validity of the narrower, more specific utility model which is being litigated.

Double-granting is allowed in Germany and France, but prohibited in Italy. In addition, the feedback of the questionnaire shows that, the patentees in Germany and France generally choose to maintain the patent rights of the double granted invention and utility model at the same time, since the patent right of invention last up to 20 years, while the utility model can only last up to 10 years.

²⁷ Article 9 of the China Patent Law (2020)

²⁸ Survey respondent in France expressed that: Filing on different days is possible but will result in novelty issues and possible priority right issues, hence it is not recommended.

2.1.17 Invalidation

(1) Invalidation System

As for the invalidation system of utility models, changes have been made to China Patent Law since 2014.

Any entity or individual who believes that the grant of the patent right is not in conformity with the relevant provisions of the Patent Law may request the patent administration department under the State Council (Re-examination and Invalidation Department of CNIPA) to declare the patent right invalid. The Re-examination and Invalidation Department of CNIPA shall examine the request for invalidation of the patent right promptly, make a decision on it and notify the person who made the request and the patentee.

Where the patentee or the person who made the request for invalidation is not satisfied with said invalidation decision declaring the patent right invalid or upholding the patent right, such party may, within three months from the date of receipt of the decision, appeal this decision to the Intellectual Property Court ²⁹/Intermediate People's Court, and as a last resort to the Supreme People's Court.

Regarding the functions of the invalidation system, according to survey results published by CNIPA ³⁰, the surveyed patentees (mainly from enterprises, universities and research institutes) believe that at least one term of the following group will be “relatively favorable” or “very favorable”, i.e.:

- “the invalidation system provides support for infringement judgement and enhances the efficiency of litigation dispute resolution” (63.1%);
- “the invalidation system provides the patentee with the opportunity to amend the patent documents, reflects the legislative purpose of the patent law to encourage innovations” (58.0%); and
- “the invalidation system plays an important role in maintaining the fairness of patent grant as an administrative error correction procedure” (56.7%).

The survey results also show that 73.0% of the surveyed patentees believe that the current patent invalidation system can basically or completely meet the requirements of innovation subjects.

In Germany, the German Patent Office (DPMA) hears the first instance invalidation request. The decision of the first instance invalidation can be appealed to the Federal Patent Court (Bundespatentgericht, BPatG), which can further be appealed to the Federal Court of Justice (Bundesgerichtshof, BGH) as a last resort. The common ground(s) for a utility model invalidation is lack of novelty or inventive step.

In France, the Paris Judicial Court (Tribunal Judiciaire de Paris) handles invalidation proceedings. The decision of the first instance invalidation can be appealed to the Paris court of Appeal, and as a last resort to the Court de Cassation. The Paris Judicial Court has changed its name: it was called Tribunal de Grande instance de Paris till 2014. The common ground(s) for utility model invalidation is lack of inventive step.

In Italy, the first instance Civil Courts with a specialization in IP (Sezioni specializzate in materia di impresa) hears first instance invalidation requests. The decision of the first instance invalidation can be appealed to the Appeal Courts with a specialization in IP (Sezioni specializzate in materia di impresa) and a further appeal can be made to the Supreme Court (Corte di Cassazione) as a last resort. Since 2014, the list of courts with a

²⁹ The Intellectual Property Court is a trial institution established to strengthen the use and protection of intellectual property rights and to improve the incentive mechanism for technological. On August 31, 2014, the 10th meeting of the Standing Committee of the 12th National People's Congress voted to adopt the decision of the Standing Committee of the National People's Congress on the establishment of intellectual property courts in Beijing, Shanghai and Guangzhou.

³⁰ See Page 96 section IV of the “2020 China Patent Survey Report”

specialization in IP has increased. The common ground(s) for utility model invalidation is lack of novelty or inventive step.

(2) New Attempt in Beijing – “Joint Oral Hearing” mechanism of patent infringement and invalidation

In China, the decision on the validity of a patent right is exercised by the Patent Administration Department (CNIPA) under the State Council. Thus, when a patent infringement and an invalidation dispute arise at the same time, there may be a situation of "patent circular litigation" ³¹, which prolongs the cycle for defending patent rights and increases the cost of defending patent rights.

Flow diagram of a common patent infringement procedure

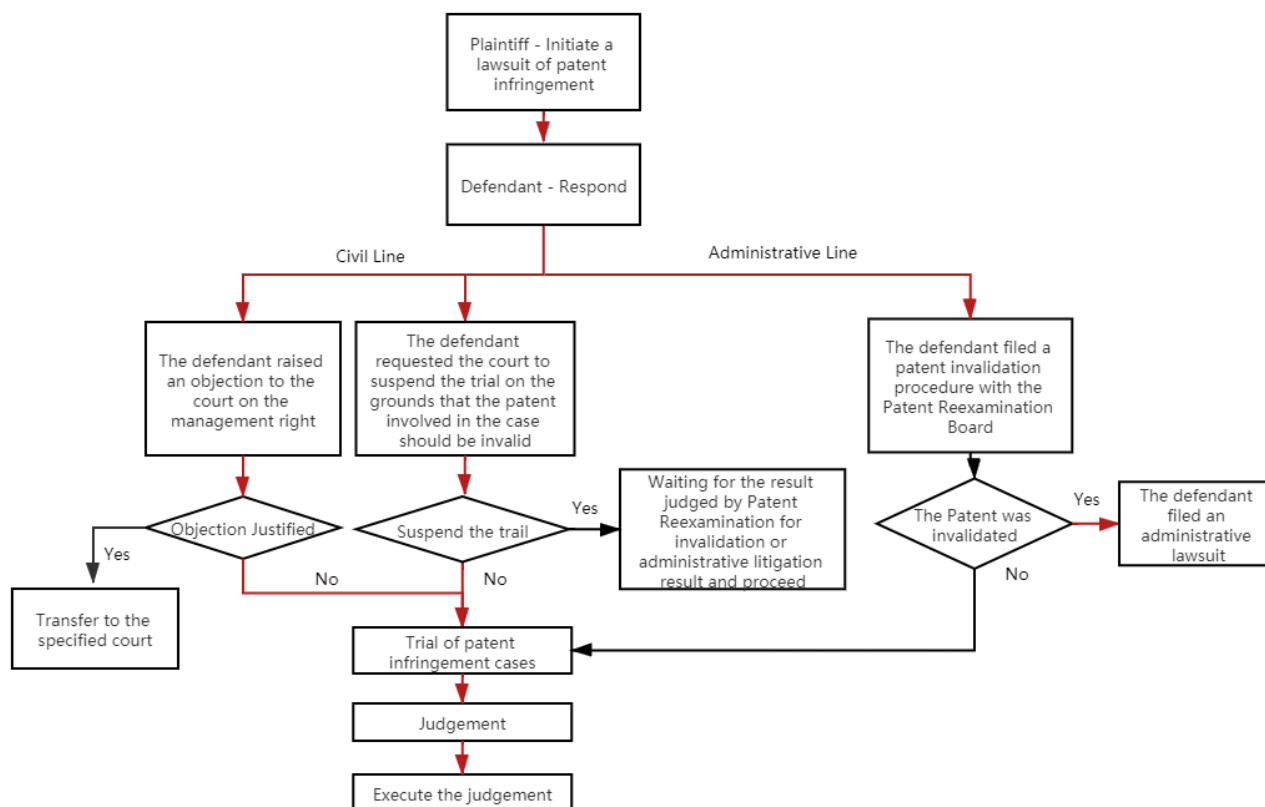


Figure 3

For example, in a common patent infringement procedure (as shown in the above figure), after the plaintiff files an infringement lawsuit in the "civil line" through a civil procedure, the defendant usually delays the patent lawsuit as much as possible by filing a jurisdictional objection to stay trial in the "civil line". At the same time, the defendant will file a patent invalidation in the "administrative line", i.e., invalidate the plaintiff's patent in question before the Re-examination and Invalidation Department of CNIPA, to completely invalidate the basis of the "civil line", i.e., the patent in question. As a result, the patentee's rights may be delayed by the above actions of the defendant, which may increase the cost of defending patent rights ³².

³¹ In case of "patent circular litigation", the court may revoke the decision of the Re-examination and Invalidation Department to invalidate the patent right in the first instance, and after the Re-examination and Invalidation Department makes another invalidation decision in response to the same invalidation request, the party concerned is not satisfied with the decision and appeal the decision to the court again.

³² <http://www.pefengip.com/blog/ip>

Accordingly, to improve the efficiency of handling patent dispute cases and to achieve convergence and consistency in infringement and validation adjudication standards, Beijing (as one of the first batch of eight pilot cities to carry out demonstrative improvements of administrative adjudication of patent infringement disputes) has developed a "Joint Oral Hearing" mechanism of patent infringement and right confirmation since March 2020.

The "Joint Oral Hearing" is an innovation of the Beijing Municipal Intellectual Property Office in the administrative adjudication of patent infringement disputes, whereby a joint hearing of the administrative adjudication case and the patent invalidation case filed with the CNIPA against the patent in question is conducted. The "Joint Oral Hearing" realizes a linkage between the administrative patent adjudication and the patent validation procedure and achieves the goals of efficient and high-quality handling of cases through by forming a "seamless connection" between a patent infringement case and invalidation case of the same patent.

In the past two years, through "Joint Oral Hearing", Beijing Municipal Intellectual Property Office has heard two patent infringement dispute cases and patent invalidation cases between Roller Coaster (Beijing) Catering Management Co., Ltd. and Weightless (Beijing) Catering Management Co., Ltd. and four patent infringement dispute cases and invalidation cases between Beijing Stone Century Technology Co., Ltd. and Beijing Qihoo Technology Co., Ltd. It is reported that the "Joint Oral Hearing" mechanism achieved good case handling and social impact ³³.

2.1.18 Infringement proceedings

(1) Infringement proceedings

In China, the courts hear utility model infringement proceedings. First instance, cases are heard at the Intermediate People's Court, decisions from which can be appealed to the Higher People's Court, and as a last resort to the Supreme People's Court. Following the establishment of the IP Court of the Supreme Court and three other dedicated IP courts, there has been a significant shift in IP case proceedings. Specifically, the newly established SPC IP Court enjoys a national jurisdiction over technical civil IP cases as well as appeals of patent validity decisions. In infringement proceedings, the court or the IP court cannot determine the validity of a utility model patent, and thus the court or the IP court requires the Patent Office (or similar department) to provide a patent right evaluation report.

In Germany, first instance cases are heard at the district court (Landgericht), decisions from which can be appealed to the higher regional court (Oberlandesgericht), and as a last resort to the federal court of justice (Bundesgerichtshof, BGH). Dedicated IP courts have also been established in Germany. Infringement matters can be litigated at any district court (Landgericht), although most cases are handled at 3-4 locations which are usually preferred by plaintiffs. All second instance validity cases, on the other hand, are handled by a single court, namely the federal patent court (Bundespatentgericht, BPatG). The court or the IP court cannot determine the validity of a utility model patent, since infringement and validity are matters handled by different courts in first and second instance.

In France, first instance cases are heard at the Paris Judicial Court of Paris (Tribunal Judiciaire de Paris), decisions from which can be appealed to the Paris Court of Appeal, and as a last resort to Cour de cassation. There are no dedicated IP courts in France. In infringement proceedings, the court will have to determine the validity of the utility model based on a search report that must be provided.

In Italy, first instance cases are heard at the first instance civil courts with a specialization in IP (Sezioni specializzate in materia di impresa), decisions from which can be appealed to the appeal courts with a

³³ "National patent infringement dispute administrative adjudication construction typical experience and practice": https://www.cnipa.gov.cn/art/2021/3/3/art_545_157126.html?xgkhide=1

specialization in IP (Sezioni specializzate in materia di impresa), and as a last resort to the supreme court (Corte di Cassazione). Dedicated IP courts are also established in Italy. Infringement matters can be litigated at a limited number of “district” courts, namely at first instance civil courts with a specialization in IP (Sezioni specializzate in materia di impresa). By reducing the number of possible forums, the aim is to focus on competences in those courts. Most cases, in practice, are filed at a subset of those courts anyhow, mostly in Venice, Milan and Turin. Since infringement and validity are handled by the same court, the court or IP court can determine the validity of a utility model patent.

(2) Establishment of Punitive Damages System in China

Compared to 2014, in addition to the establishment of dedicated IP courts, in the China Patent Law (2020 Amendment), the statutory compensation for patent infringement cases has been increased, and the upper limit of statutory compensation has been raised to 5,000,000 RMB (about 651,500€), and a punitive damages system has been added.

As for the punitive damages system, in general, there are two main principles for determining the compensation amount for infringement of patent rights, namely, the “compensatory principle” and the “punitive principle”. The “compensatory principle” is also called as “filling up principle”, which is intended to make up for the “actual losses” suffered by the patent right holder due to infringement. Prior to amendment of the Patent Law in 2020, China adopted the “filling up principle” for patent infringement compensation. After the above amendment of the Patent Law in 2020, it has been changed to the “punitive principle”. According to the current “punitive principle”, the final infringement compensation amount = 1.5 × the compensation amount determined based on the actual loss of the right holder, the illegal profit of the infringer, and the reasonable multiple of the license fee.

This change from “filling up principle” to “punitive principle” is considered as a huge institutional improvement, since such punitive principle not only compensates the actual loss of the patent right holder, but also economically punishes the intentional infringer. Punitive damages increase the financial burden of intentional infringers, and are of great significance to deter intentional infringements, and can serve as a better warning.

– Typical case

- Top 10 IPR Cases in Chinese Courts in 2018: utility model patent infringement dispute among Wuxi Guowei Ceramic Electric Co., Ltd, Jiang Guoping and Changshu Linzhi Electric Heat Device Co., Ltd, Suning Tesco Group Co., Ltd (Supreme People's Court 2018, Civil Retrial Judgment No. 111):

[Abstract] Jiang Guoping is the patentee of the utility model patent titled "a heat-conducting aluminium tube and PTC heater of PTC heater" (i.e., the patent in this case). Wuxi Guowei Ceramic Electric Co., Ltd. (Guowei) is the exclusive licensee of the patent. Guowei and Jiang Guoping filed a lawsuit on the grounds that the air conditioner PTC heater produced and sold by Changshu Linzhi Electric Heating Device Co., Ltd (Linzhi) infringed their patent rights, demanding to stop the infringement and compensate for their economic losses and reasonable expenses totaling 15 million RMB. In the first instance, the Nanjing Intermediate People's Court of Jiangsu Province held that the infringing products fell within the scope of protection of claim 2 of the patent in this case and ruled that Linzhi and others should stop the infringing activities, and Linzhi should compensate Guowei Corporation and Jiang Guoping for economic losses and reasonable expenses totaling 1 million RMB. Guowei, Jiang Guoping and Linzhi appealed. The High People's Court of Jiangsu Province held in the second instance that the infringing products lacked the implied technical features of claim 2 of the patent and did not fall within the scope of protection of claim 2 of the patent, and thus reversed the first instance judgment and dismissed the claims of Guowei and Jiang Guoping. Guowei and Jiang Guoping were not convinced and applied to the Supreme People's Court for a retrial. In the retrial, the Supreme People's Court held that the interpretation of the second instance

judgment regarding the scope of protection of claim 2 of the patent in this case was improper, and the infringing products sued fell into the scope of protection of claim 2 of the patent in this case. The judgment of the second instance was reversed and the number of economic damages was changed to a total of more than 9.37 million RMB.

[Typical Significance] This case is an example based on the aforementioned “punitive principle”. For the evidence that can reflect the amount of sales of infringing products, the total amount of sales of infringing products, profit margin and contribution degree are used to calculate the profits obtained from infringement of the infringing products; for the evidence that cannot reflect the specific amount of sales of the infringing products, the amount of damages is determined in accordance with the statutory compensation. By applying the rules of evidence, economic analysis methods and other means, especially by fully considering the profits brought by the infringed products and other factors, the case was finally adjudicated to compensate the patent holder for economic losses and reasonable expenses of nearly 9.5 million RMB, which is over 5 million RMB of the upper limit of statutory compensation. As can be seen from the final compensation amount, the judicial decision based on the “punitive principle” achieved an infringement compensation that matches the scale of commercial operation and the marked value of the intellectual property.

(3) Establishment of a “1+3+20” intellectual property jurisdiction

On August 31, 2014, the Standing Committee of the China’s National People’s Congress decided to establish three intellectual property courts in Beijing, Shanghai and Guangzhou, and since January 2017, the Supreme People’s Court approved the establishment of 20 intellectual property tribunals in Nanjing, Suzhou, Wuhan, Chengdu, Hangzhou, Ningbo, Hefei, Fuzhou, Jinan, Qingdao, Shenzhen, Tianjin, Zhengzhou, Changsha, Xian, Nanchang, Lanzhou, Changchun, Urumqi and Haikou.³⁴

On October 26, 2018, the Sixth Session of the Standing Committee of the 13th National People’s Congress passed the “Decision on Several Issues Concerning Litigation Procedure of Patent and Other Intellectual Property Cases”, which stipulates that the civil and administrative cases of patent and other technical intellectual property rights shall be appealed to the intellectual property tribunal of the Supreme People’s Court from January 1, 2019. Previously, aforementioned cases were appealed to the Higher People’s Courts of various provinces, autonomous regions, and municipalities directly under the Central Government.

Since then, a “1+3+20” intellectual property jurisdiction has been formed:

- 1 IP Tribunal of the Supreme People’s Court;
- 3 IP Courts (Beijing, Shanghai, Guangzhou); and
- 20 IP Tribunals.

³⁴ <http://xian.xuexiip.com/909/>

“1+3+20” intellectual property jurisdiction

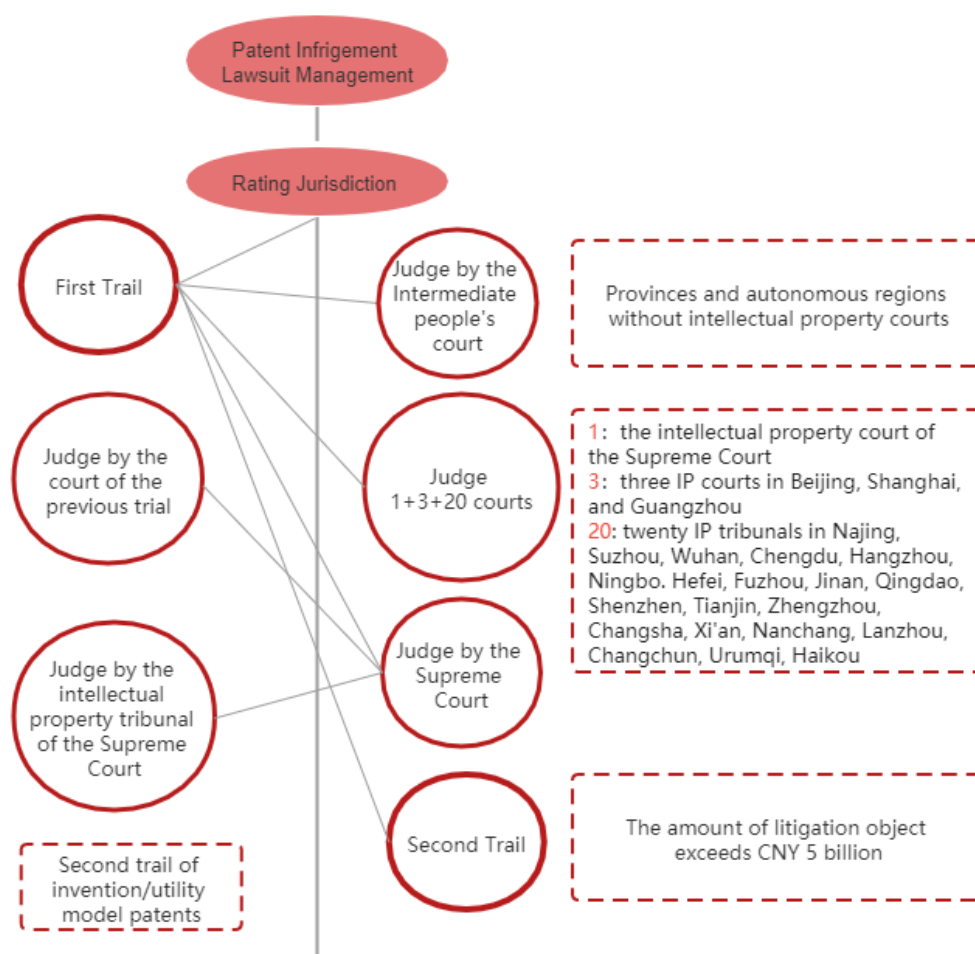


Figure 4

2.1.19 Internal quality control

With the rapid development of China's intellectual property industry, patent examination quality management has also been increased to a new level. According to reports, in recent years, the Intellectual Property Office has adopted measures such as "stabilizing growth, adjusting structure, and promoting transformation" to help achieve high-level innovations, high-quality applications, high-efficiency examinations and high-standard grants. Specifically, on the one hand, the patent office actively strengthens internal quality supervision, corrects defects in the examination process, helps the examiners improve their examination capabilities, and commissions an independent third party to conduct examination quality user satisfaction surveys, scientific sampling, rational analysis, and continuous improvement of examination quality user satisfaction. On the other hand, the patent office also establishes and further improves the patent examination business guidance system and quality assurance system.

However, in an interview with a head of the IP department of a Chinese tier 1 packaging company, the head expressed bluntly that, it is the view of a lot of people, the reputation of Chinese utility model patents does not seem to be very good, and although there are a large number of patents in China, but the quality of these patents is still poor. It is foreseeable that even if the right and effective measures are adopted, it will take a rather long to change the perception about Chinese patents, and the measures of internal quality control at the patent office also needs to be verified and monitored.

– Typical case

• Re-examination of utility model patent application "Moxibustion Cup"

[Abstract] This case involves a re-examination request filed by the applicant Zhou regarding the rejection decision made by the Patent Office for utility model patent application No. CN201620625135.1. The Patent Re-examination Board issued the examination decision No. 153870 on the request for re-examination and upheld the above rejection decision.

[Typical significance] This case involves to the determination of the technical effects, in particular the healthcare effects, that include speculative contents. In view of the complexity of how the human body functions and considering factors such as safety to the human body, for utility model applications involving healthcare a person skilled in the art cannot determine based on the contents disclosed in the specification that the technical solution given in the specification is capable of producing its claimed technical effects. The applicant should provide experimental evidence to prove the expected effects. At present, the quality of China's utility model applications needs to be further improved, and the technical effects of many applications have not been verified in practice, but are only based on prediction, i.e., a theoretical possibility of uncertain implementation effects. Such patent applications will mislead consumers and damage perception of Chinese utility model patents if these patent applications are granted. In view of this, this case proposes that utility model patent applications should be strictly examined in accordance with the law, and its effects be strictly verified, so as to guide and further improve the quality of such utility model patent applications.

Survey respondents in the European countries under study generally expressed that the patent administration department reinforced the control of patents' substantive conditions, notably by fully assessing novelty and the inventive step prior to granting a patent. In particular, survey respondents in France further pointed out that the above measures strengthen the quality and credibility of French patents. In addition, the introduction of the administrative opposition procedure for patent inventions only allows for further quality control of patents as it represents a much less expensive and faster way to dispute a patent's quality.

2.2 Usage of utility model system in China

2.2.1 Application data

Since 2014, the numbers of patent applications and registrations in China has maintained a rapid growth. The data disclosed officially by CNIPA for 2015-2019 is summarized in the Table 9 below.

Intellectual Property Application and registration in China

Year	Application				Registration			
	All Patent	Invention	Utility Model	Design	All Patent	Invention	Utility Model	Design
2015	2,798,500	1,101,864	1,127,577	569,059	1,718,192	359,316	876,217	482,659
2016	3,464,824	1,338,503	1,475,977	650,344	1,753,763	404,208	903,420	446,135
2017	3,697,845	1,381,594	1,687,593	628,658	1,836,434	420,144	973,294	442,996
2018	4,323,112	1,542,002	2,072,311	708,799	2,447,460	432,147	1,479,062	536,251
2019	4,380,468	1,400,661	2,268,190	711,617	2,591,607	452,804	1,582,274	556,529
2020	5,194,000	1,497,000	2,927,000	770,000	3,639,000	530,000	2,377,000	732,000

Table 9

Numbers of Applications (2015 - 2020)

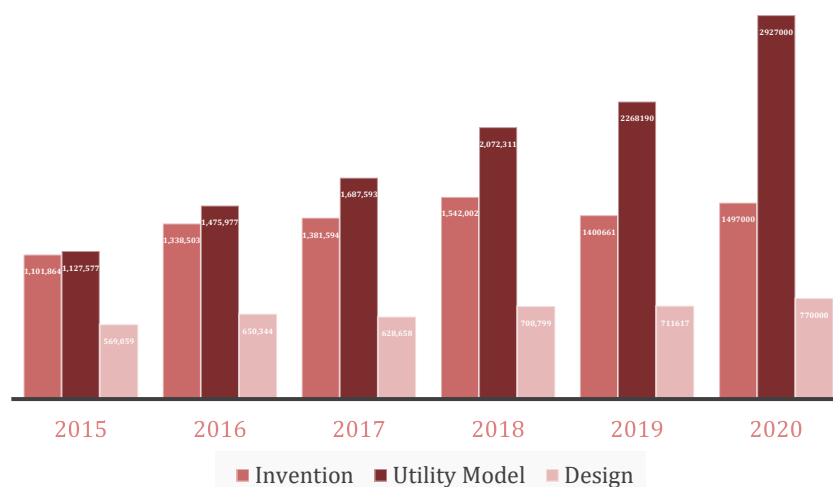


Figure 5

Change rates of the Applications (2016 - 2020)

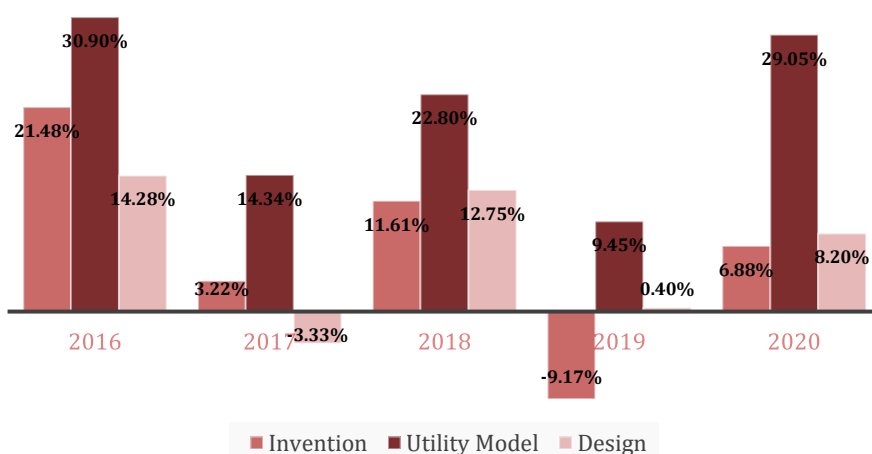


Figure 6

Numbers of Registrations (2015 - 2020)

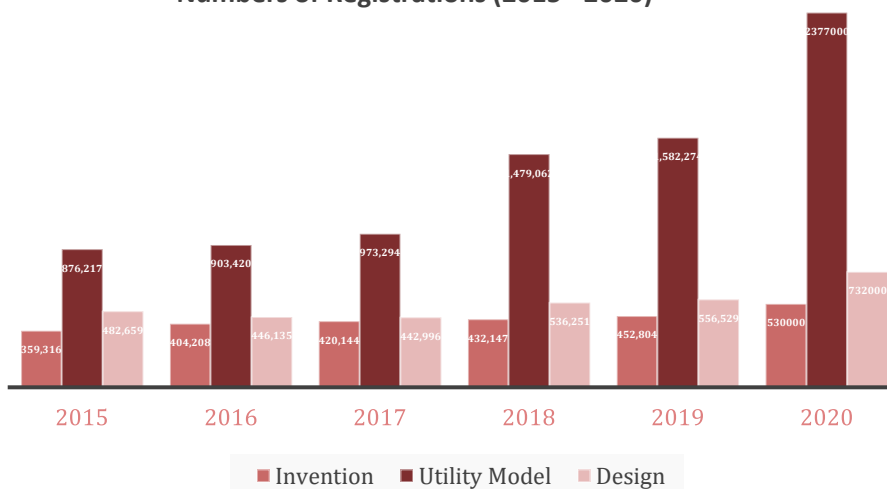


Figure 7

Change rates of the Registration (2016 - 2019)

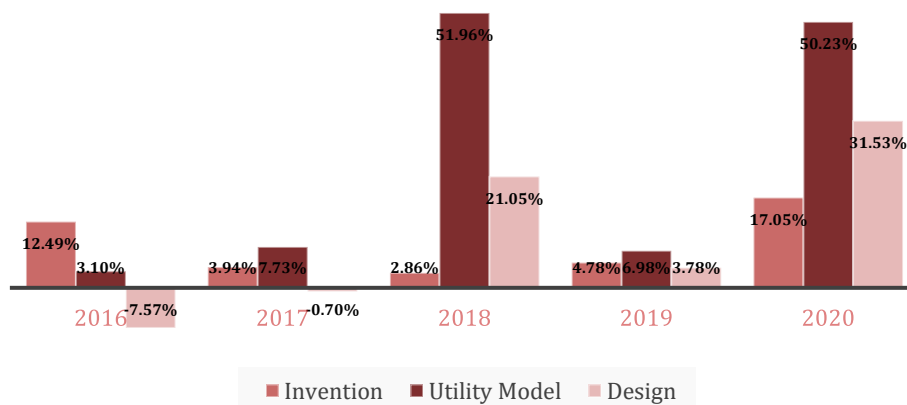


Figure 8

It can be clearly seen from the above tables and charts that, compared to inventions and designs, in the past few years, utility model patents have been far ahead in terms of absolute numbers and increasing rates. Even when China vigorously cracked down bad faith application and reduced the application subsidies, utility models still achieved such increases. This means that China's current utility model system can provide sufficient incentives for inventors.

In comparison, in Germany, according to the annual information published by DPMA³⁵, the data of utility model applications from 2010 to 2020 are summarized in the **Table 10** below.

Number of Utility Model applications in Germany (2010-2020)

Year	All Application	Resident	Non-Resident
2010	17005	13694	3311
2011	15486	12359	3127
2012	15491	11930	3561
2013	15472	11641	3831
2014	14748	10948	3800
2015	14277	10355	3922
2016	14024	10086	3938
2017	13299	9470	3829
2018	12311	8797	3514
2019	11668	8428	3240
2020	12323	8897	3426

Table 10

³⁵ <https://www.dpma.de/dpma/veroeffentlichungen/jahresberichte/index.html>

Number of Utility Model Applications (Year 2010 - 2020)

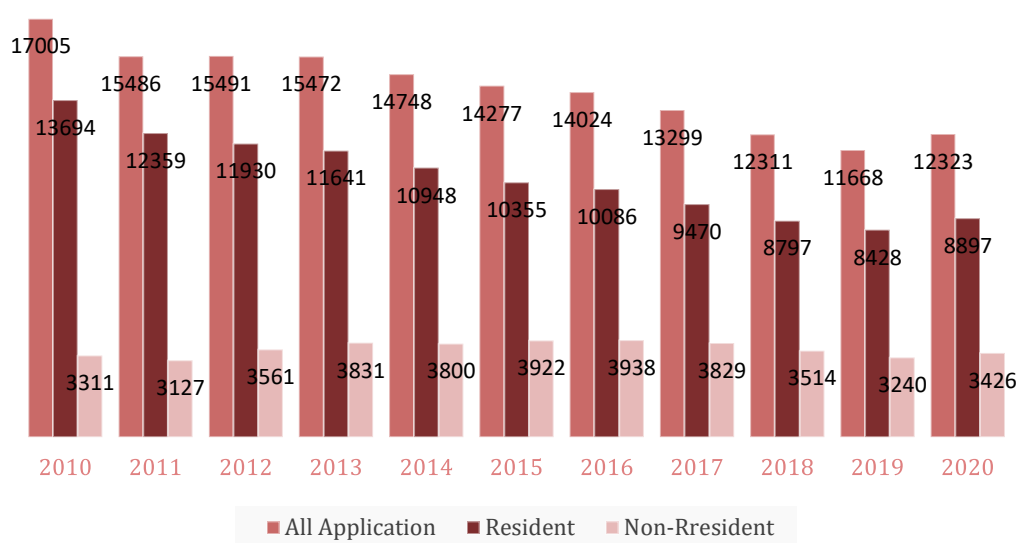


Figure 9

It can be clearly seen from the above chart that the number of German utility model applications has continued to decrease in recent years.

However, the number of German utility model applications filed by the applicants from Chinese Mainland continuously increased in this period, (as shown in the Figure 10 below). The increased enthusiasm amongst applicants for utility model applications is evident from these numbers.

German Utility Model Application from Chinese Mainland

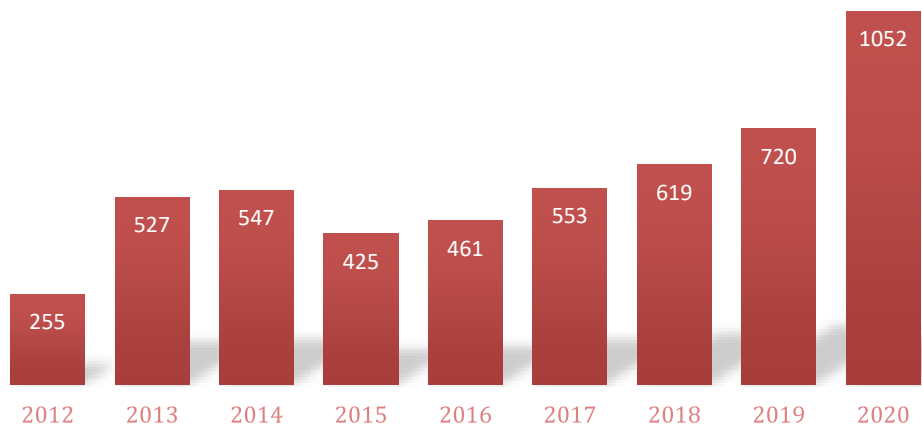


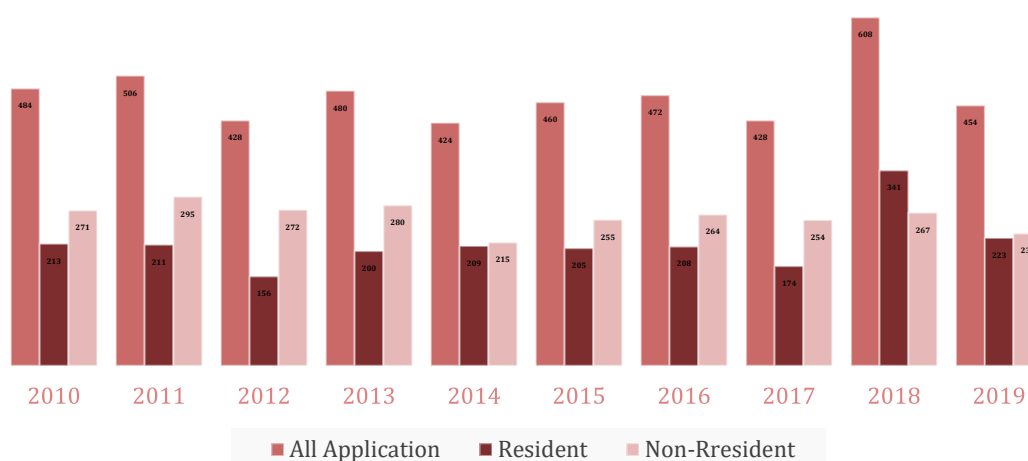
Figure 10

In France, according to the annual information published by WIPO ³⁶, the data of utility model applications from 2010 to 2019 are shown in the **Table 11** and **Figure 11** below.

³⁶ https://www.wipo.int/ipstats/en/statistics/country_profile/profile.jsp?code=FR

Number of Utility Model applications in France (2010-2019)

Year	All Application	Resident	Non-Resident
2010	484	213	271
2011	506	211	295
2012	428	156	272
2013	480	200	280
2014	424	209	215
2015	460	205	255
2016	472	208	264
2017	428	174	254
2018	608	341	267
2019	454	223	231

Table 11**Number of Utility Model application in France (2010 - 2019)****Figure 11**

Before 2020, the annual number of utility model applications in France remained low (between 400 and 600 in total). This is a very small number almost negligible when compared to the number of invention applications filed per year, which is more than 10,000. Even the number of utility model applications filed by domestic applicants is smaller than the number of utility model applications filed by foreign applicants. This shows that utility model rights are not attractive to local applicants, and therefore, the French utility model system (with short and unstable patent protection) has been considered as an unsuccessful system for a long time.

In 2020, France reformed its utility model system. The most significant reform included extending the protection period to 10 years and allowing the conversion between utility model and invention application. The effect of this reform remains to be observed, but the questionnaire/survey conducted in France shows that respondents have a positive attitude towards this reform. For example, one respondent stated in the questionnaire that:

- In France, in 2019 and 2020, patent filings in general experienced a slight decrease despite simplifications brought to utility model regulation. However, these figures can be explained by the health crisis which hit some of the most innovative sectors such as the transport sector. Besides, the French Patent Office's Managing Director, Pascal Faure, is confident that the implementation of the PACTE law and the support programs offered by the French Office will allow the figures to rise again.

In Italy, according to the annual information published by WIPO ³⁷, the data of utility model applications from 2010 to 2019 are shown in the **Table 12** and **Figure 12** below.

Number of Utility Model applications in Italy (2010-2019)

Year	All Application	Resident	Non-Resident
2010	2462	2307	155
2011	2470	2308	162
2012	2758	2567	191
2013	2678	2480	198
2014	2497	2348	149
2015		Missing	
2016	2199	2033	166
2017	2095	1888	207
2018	1966	1781	185
2019	1916	1750	166

Table 12

Number of Utility Model Applications (2010 - 2019)

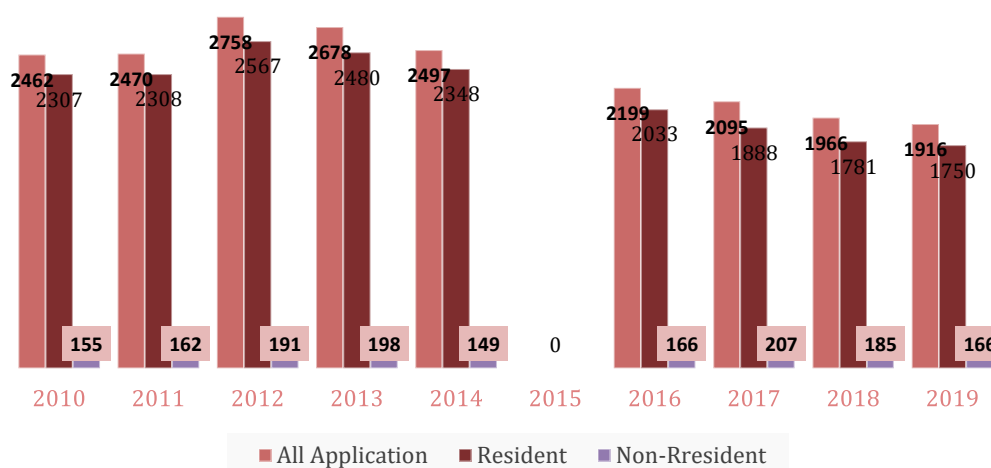


Figure 12

From the above table and chart, it can be clearly seen that the number of Italian utility model applications decreases in recent years. However, the data of WIPO shows that the number of invention applications in Italy does not have the same trend and is in fact increasing.

However, in 2020, 2,397 Italian utility model applications ³⁸ were filed in total, which resulted in the first positive growth since 2012. It is interesting to note that, out of those 2,397 applications, 1,165 applications are filed by natural persons as applicants but not by legal entities. This seems to indicate that utility models are filed by “single inventors” in 50% of the cases. This is particularly different compared to invention applications, in which more than 75% of the applications indicate a legal entity as applicant.

³⁷ https://www.wipo.int/ipstats/en/statistics/country_profile/profile.jsp?code=IT

³⁸ <https://statistiche.uibm.gov.it/>

2.2.2 Re-examination data

Regarding the number of patent Re-examination cases, in the first half of 2020, a total of 26,200 requests for patent re-examination were received by CNIPA, an increase by 13.9% year-on-year; and 25,700 cases were closed. In the first half of 2019, a total of 23,000 requests for re-examination were received, an increase by 22.9% year-on-year; 17,000 cases were closed, an increase by 11.0% year-on-year. Judging from the number of re-examination requests, patent applicants pay more attention to their rights and choose to seek post-trial relief when their applications are rejected.³⁹

2.2.3 Invalidation data

Regarding the number of patent invalidation cases, in the first half of 2020, 0.26 million requests for patent invalidation were accepted by CNIPA; 0.43 million cases were closed. Further, 0.28 million requests for invalidation were accepted in the first half of 2019, an increase by 12.8% year-on-year; 0.29 million cases were closed, an increase by 18.9% year-on-year. The number of invalidation acceptance decreased by 7% in the first half of 2020. According to the analysis made by professionals, the decrease is caused by the epidemic, so such decrease should be considered appropriate and normal and should not be shown as a reversal signal. In the long run, patent rights will receive more and more attention, and there will be more disputes arising from patent rights protection, so the overall trend of invalidation volume should still increase.⁴⁰

Regarding the efficiency of patent invalidation cases in China, since the promulgation and implementation of the Patent Law in 1984, the patent invalidation system has been realizing the advantages of administrative procedures with high efficiency as an administrative right confirmation procedure. Relevant statistics show that while the number of patent invalidation cases filed in China has increased by more than 15% in the past three years, the cycle of patent invalidation cases concluded from 2016 to 2018 has remained stable at around 5.1 months. In the first half of 2019, it was in fact 5 months. China has been leading in terms of efficiency of conducting the trial as compared to other major countries implementing the patent invalidation system.

In the past 10 years, the number of invalidation requests increased year by year. The number of patents that have been declared invalid account for about 50% of the total number of invalidation requests each year. When considering patents that have been declared partially invalid and patents that were maintained after amendment, decisions declaring partial invalidity account for 60% or greater.⁴¹

Taking the data of 2020 as an example,⁴² the Patent Review and Invalidation Department of the CNIPA issued a total of 4,423 decisions where requests for invalidation of patent rights in 2020 were sought. Among them, 1,802 cases were related with utility model patents, accounting for 40.7%; 1,695 cases were related with design patents, accounting for 38.3%; and 926 cases were in related with invention patents, accounting for 20.9%.

The number of cases being declared all invalid account for 46.1% of the total number of invalidation decisions. Among them, the proportion of design patents being declared all invalid is 53.3%, the proportion of utility model patents being declared all invalid is 47.1%, and the proportion of invention patents being declared all invalid is relatively low, at 30.6%.

³⁹ <http://acla.org.cn/article/page/detailById/30016>

⁴⁰ <http://acla.org.cn/article/page/detailById/30016>

⁴¹ <http://www.unitalen.com.cn/xhtml/report/19020470-1.htm>

⁴² http://www.iprdaily.cn/news_27035.html

The number of cases being declared partially invalid account for 13.8% of the total number of invalidation decisions. Among them, the proportion of utility model patents being declared partially invalid is 22.9%, and the proportion of invention patents being declared partially invalid is 21.5%.

The number of cases being declared valid accounts for 40.1%. Among them, 46.7% of the design patents are maintained as valid, 30% of the utility model patents are maintained as valid, and 47.9% of the invention patents are maintained as valid.

Overall, the number of requests for invalidation of invention patents is less than that of design patents and utility model patents, and nearly about half the number of requests for invalidation of utility model patents. The proportion of invention patent being declared valid is much higher than that of design patents and utility model patents. That means, the probability of patents being declared invalid is gradually increasing from invention patents to design patents to utility model patents and is consistent with the general understanding. To some extent, the low stability of utility model patents has greatly increased the proportion of them being declared invalid ⁴³.

As shown by the survey data published by CNIPA ⁴⁴, 73.0% of the Chinese patent holders believe that the current patent invalidation system can meet the requirements of the innovation subjects. In contrast, only 4.5% of the patent holders think the current patent invalidation system could not meet their needs. This shows that China's current invalidation system is widely accepted.

2.2.4 Enforcement data

The enforcement data of the local courts in China regarding patent cases in recent years is shown in the table 13 below.

Patent Cases in Chinese Local Courts

		2015	2016	2017	2018	2019
First Instance Accepted (filed)	Civil-Patent	11607	12357	16010	21699	22272
	Administrative-Patent	1721	1123	872	1536	1661

Table 13

It can be seen that the number of civil-patent enforcements has substantially increased in recent years. In contrast, the number of administrative-patent enforcements has certain fluctuations, but no significant increase in absolute numbers.

According to the survey results published by CNIPA ⁴⁵, while dealing with infringements, the Chinese patentees generally choose to:

- negotiate and settle with the infringing party (34.4%);
- send a lawyer letter to stop the infringing activities (33.2%);
- submit a lawsuit in courts (26.4%);
- request an administrative procedure (18.7%);
- request an arbitration or mediation procedure (16.4%);

⁴³ As shown by the charts on pages 8-9 of the practitioner questionnaire conducted by us, 60% of surveyed IP practitioners believe that it is easier to invalidate a utility model than an invention, since a) the stability of utility models is poor as there is no substantive examination during application process (60%), and b) the technical scheme of utility models is usually relatively simple (40%).

⁴⁴ See page 112 of the “2020 China Patent Survey Report”.

⁴⁵ See page 62 in the section 1.1 of Part III of the “2020 China Patent Survey Report”

- request a pre-litigation injunction from courts to stop infringing activities (13.1%);
- take other action(s) (3.6%);
- do nothing (26.0%).

In addition, the survey results also show that enterprises prefer to take legal actions to defend their rights; the universities and research institutes generally choose to negotiate and settle with the infringing party; 26.1% of small enterprises and 34.3% of micro enterprises take no action when they encounter infringements.

The reason for the above results may be that a considerable number of small and micro enterprises or non-profit universities and research institutions are concerned about the difficulty and cost of defending their patent rights. For a long time, the main issues faced by Chinese patent holders have been difficulty in proof citing, long cycle of enforcement action, high cost associated with legal proceedings, low compensation / damages, and poor effect. As China's patent protection environment improves, this situation should be resolved, but it still will be in the long-term.

2.2.5 Transformation data ⁴⁶

This section updates the latest utilization data of valid utility model patents in China. Specifically, the following content attempts to present a comprehensive picture of the current utilization of utility model patents from the following factors including industrialization rate, license rate, transfer rate, the proportion of shares by converting patents as a business asset, and patent implementation rate of valid utility model patents.

(1) Industrialization rate of valid patents ⁴⁷

According to the survey data published by CNIPA ⁴⁸, the industrialization rate of domestic valid utility model patents in China is 42.0%. In terms of the types of patent holders, enterprises have a relatively high industrialization rate of 44.6%, while universities have the lowest rate of 2.1%.

Industrialization rate of valid patents of different patentees (unit: %)

	Enterprise	University	Research institute	Overall
Valid invention patent	44.9	3.8	11.3	34.7
Valid utility model patent	44.6	2.1	12.9	42.0
Valid design patent	53.1	1.9	39.0	51.6
Sum	46.0	3.0	12.0	41.6

Table 14

⁴⁶ The concept of “transformation” of patents herein is derived from Article 16 of the Law of the People's Republic of China on Promoting the Transformation of Scientific and Technological Achievements, which includes self-investing in the transformation, transferring, licensing, cooperated implementing, investing in shares and other transformation methods.

⁴⁷ The industrialization rate of patent refers to the ratio of the number of patents used to produce products and put them on the market to the number of valid patents owned by the patentee. For example, if an enterprise has 100 valid patents, and 30 of them are used to produce products and put them on the market, then the proportion of valid invention patents used to produce products and put them on the market is 30%.

⁴⁸ See section 2.1.1 of the “2020 China Patent Survey Report”.

(2) License rate of valid patents

According to the survey data published by CNIPA ⁴⁹, the license rate of domestic valid utility model patents in China is 5.4%. In terms of the types of patent holders, enterprises have a relatively high license rate of 5.5%, while universities have the lowest rate of 3.1%.

License rate of valid patents of different patentees (unit: %)

	Enterprise	University	Research institute	Overall
Valid invention patent	8.6	5.6	6.7	7.9
Valid utility model patent	5.5	3.1	3.8	5.4
Valid design patent	8.1	2.3	10.4	8.0
Sum	6.5	4.4	5.8	6.3

Table 15

(3) Transfer rate of valid patents

According to the survey data published by CNIPA ⁵⁰, the transfer rate of domestic valid utility model patents in China is 4.0%. In terms of the types of patent holders, enterprises have a relatively high transfer rate of 4.1%, while research institutes have the lowest rate of 2.0%.

Transfer rate of valid patents of different patentees (unit: %)

	Enterprise	University	Research institute	Overall
Valid invention patent	6.7	4.6	4.5	6.2
Valid utility model patent	4.1	2.4	2.0	4.0
Valid design patent	3.1	1.5	1.9	3.1
Sum	4.5	3.6	3.5	4.4

Table 16

(4) Proportion of shares by converting patents into business asset

According to the survey data published by CNIPA ⁵¹, the proportion of shares by converting patents into business asset of domestic valid utility model patents in China is 2.8%. In terms of the types of patent holders, enterprises have a relatively high proportion of 2.8%, while universities have the lowest proportion of 1.8%.

⁴⁹ See section 2.1.2 of the "2020 China Patent Survey Report".

⁵⁰ See section 2.1.3 of the "2020 China Patent Survey Report".

⁵¹ See section 2.1.4 of the "2020 China Patent Survey Report".

The proportion of shares by converting patents into business asset of valid patents of different patentees (unit: %)

	Enterprise	University	Research institute	Overall
Valid invention patent	3.2	3.5	4.0	3.3
Valid utility model patent	2.8	1.8	1.9	2.8
Valid design patent	2.5	1.0	1.7	2.5
Sum	2.8	2.7	3.2	2.8

Table 17

(5) Implementation rate of valid patents ⁵²

According to the survey data published by CNIPA ⁵³, the implementation rate of domestic valid utility model patents in China is 58.7%. In terms of the types of patent holders, enterprises have a relatively high license rate of 61.9%, while universities have the lowest rate of 8.2%.

Implementation rate of valid patents of different patentees (unit: %)

	Enterprise	University	Research institute	Overall
Valid invention patent	62.1	14.7	28.9	50.7
Valid utility model patent	61.9	8.2	32.0	58.7
Valid design patent	66.9	6.0	52.4	65.0
Sum	62.7	11.7	30.0	57.8

Table 18

(6) Patent Transfer and Transformation Index (PTI) ⁵⁴

CNIPA has constructed and published the "Patent Transfer and Transformation Index" (PTI) based on China's patent survey data during the 13th Five-Year Plan period and partly using administrative data of intellectual property rights, which is a comprehensive index reflecting the active changes of patent transfer and transformation in China, compiled mainly based on China's patent survey data. The composition and calculation methods of the index are as follows.

I. Compositions and Weights of Index Indicators

⁵²Patent implementation rate is derived from Article 11 of the China Patent Law. Patent implementation refers to the patent owner's implementation or license to manufacture, use, promise to sell, sell or import its patented products for the purpose of production and operation, or the use of its patented methods and the use, promise to sell, sell or import of products obtained directly according to the patented methods, and also includes other acts of realizing the value of the patent, such as converting patents into business asset or transferring it to others. The patent implementation rate refers to the ratio of the number of implemented patents to the number of valid patents owned. For example, if an enterprise has 100 valid patents and 60 of them have been implemented, the ratio of implemented patents among valid patents is 60%.

⁵³ See section 2.1.5 of the "2020 China Patent Survey Report".

⁵⁴ See annex of the "2020 China Patent Survey Report".

The "Patent Transfer and Transformation Index" (PTI) is composed of eight sub-indicators, including the industrialization rate, the implementation rate and transfer rate of valid patents etc., the names and weights of the specific sub-indicators are as follows:

1. Industrialization rate of valid patents, with a weight of 30%.
2. Implementation rate of valid patents, with a weight of 10%.
3. License rate of valid patents, with a weight of 10%.
4. Transfer rate of valid patents, with a weight of 10%.
5. The proportion of shares by converting valid patents into business asset, with a weight of 10%.
6. Value of valid patent: including the proportion of self-implementation value over 1 million RMB, the average value of patent obtained by survey, with a total weight of 10%.
7. The amount of patent pledge financing, with a weight of 10%.
8. The export amount of intellectual property royalties, with a weight of 10%.

II. Calculation Methodology of Index

In calculation of the PTI, the prosperity dividing line is set mainly by reference to the Consumer Confidence Index (CCI) and Purchasing Managers' Index (PMI). When the index is higher than 50, it indicates that the situation of patent transfer and transformation in the current year is more active than that of the previous year, and the higher the score, the more obvious the increase in activity. When the index is lower than 50, it indicates that the situation of patent transfer and transformation in the current year has shrunk compared with that of the previous year, and the lower the score, the more obvious the degree of shrinkage.

III. The PTI scores in years 2016-2020 ⁵⁵

PTI scores of China (2016-2020)

	2016	2017	2018	2019	2020
PTI scores	49.5	54.4	47.8	51.1	54.7

Table 19

The above data shows that the PTI of China in 2020 is 54.7, which is above the prosperity dividing line of 50 and has increased by 3.6 compared to the previous year (2019), continuing in the rising range, indicating that the activity of valid patent transfer and transformation in China has been increasing.

2.3 How the current system could be improved

Before analyzing the possibility of improving the existing system, it is important to understand the factors that may affect innovation activities of innovation subjects, such as enterprises and individuals under the existing system.

Below, data from the "2015 - 2020 China Patent Survey (Data) Report" ⁵⁶ published by CNIPA is quoted, some of which does not specifically refer to the utility model system, but the entire patent system including

⁵⁵ See page 129 of the "2020 China Patent Survey Report".

⁵⁶ 2015 China Patent Survey Data Report:

<https://www.cnipa.gov.cn/transfer/pub/old/tjxx/yjcg/201607/P020160701584633098492.pdf>

2016 China Patent Survey Data Report:

<http://www.gov.cn/xinwen/2017-07/01/5207170/files/0d83016749434af3aef3db92343ad9.pdf>

2017 China Patent Survey Report:

<https://wenku.baidu.com/view/a68de36900768e9951e79b89680203d8ce2f6acb.html>

inventions, utility models and designs. However, since the information contained in the data can also directly or indirectly reflect the history, current situation, and future trend of the development of China's utility model system, the data is still used to carry out the relevant analysis.

According to the survey data published by CNIPA⁵⁷, the factors that prevent enterprises and individuals from gaining benefits from innovation activities are summarized in the following figures 13-14.

Factors that prevent enterprises from gaining benefits from innovation activities

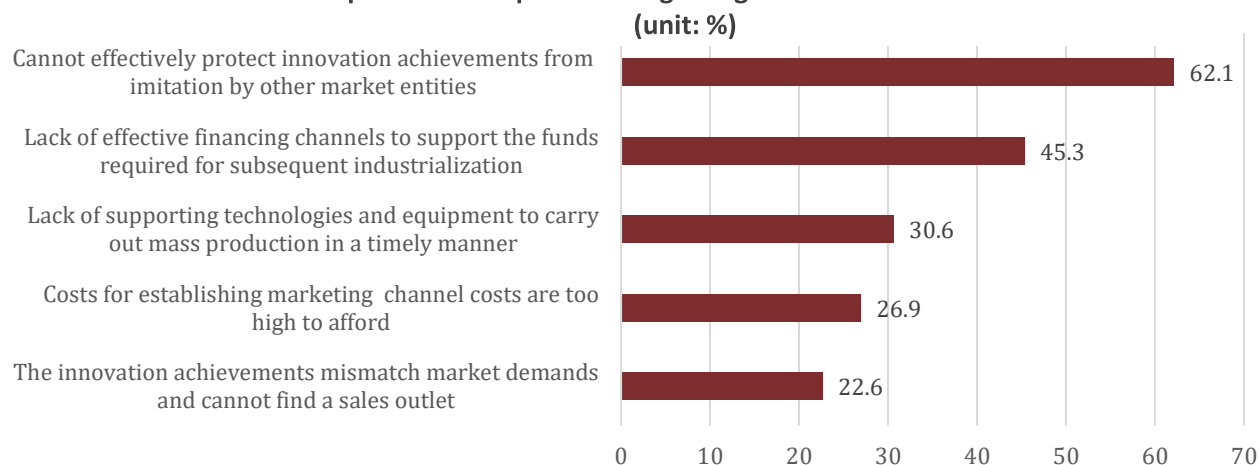


Figure 13

Factors that prevent individuals from gaining benefits from innovation activities

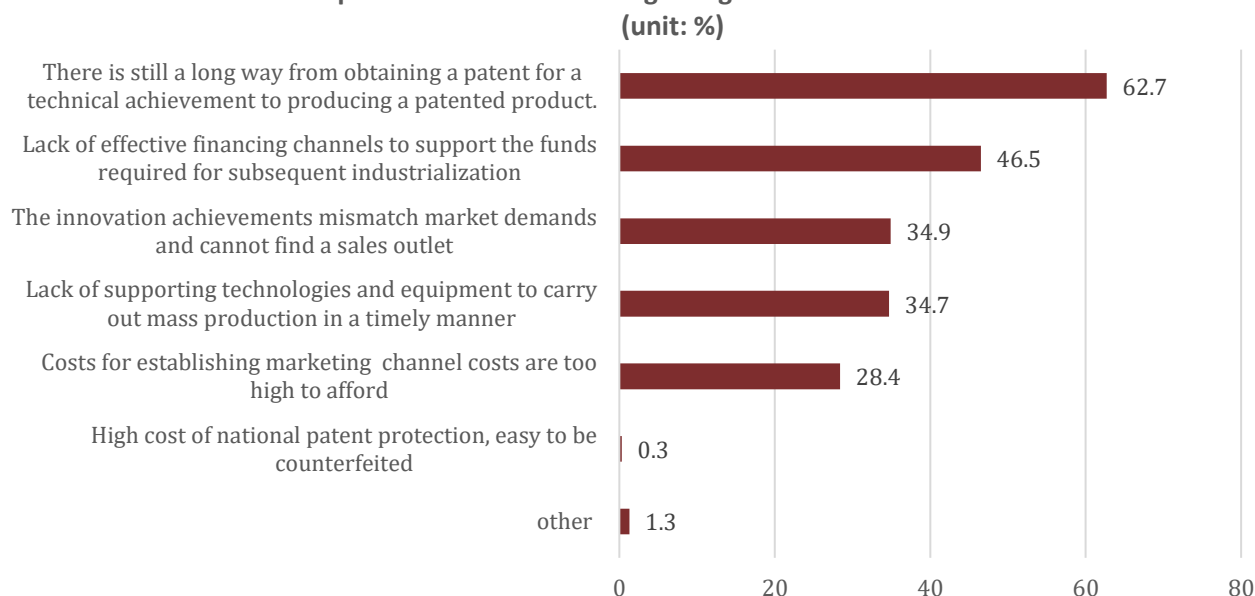


Figure 14

2018 China Patent Survey Report:

https://www.cnipa.gov.cn/module/download/download.jsp?i_ID=40215&colID=88

2019 China Patent Survey Report:

https://www.cnipa.gov.cn/module/download/download.jsp?i_ID=40213&colID=88

2020 China Patent Survey Report:

<https://www.cnipa.gov.cn/module/download/downfile.jsp?classid=0&showname=2020%E5%B9%B4%E4%B8%AD%E5%9B%BD%E4%B8%93%E5%88%A9%E8%B0%83%E6%9F%A5%E6%8A%A5%E5%91%8A.pdf&filename=b6bf2ef6f8b74b8bb0f954de18e4830e.pdf>

⁵⁷ See section 3.3 of the “2015 China Patent Survey Data Report”.

From the above survey results, the factors that enterprises are most concerned about are summarized as follows:

- I. whether the protection system can protect their innovation achievements from imitation by other market entities (62.1%);
- II. financial support for the industrialization of patent technologies (45.3%); and
- III. support of the related technologies and equipment (30.6%).

In comparison, individuals are more concerned about:

- I. transformation of innovation achievements to patent products (62.7%);
- II. financial support for the industrialization of patent technologies (46.5%); and
- III. relationship between patent products and market demands.(34.9%).

According to above data, it is evident that, when compared with individuals, enterprises, which have stronger capital, technology, market and information advantages, are better able to industrialize the innovation achievements, grasp the technological trends, match patent products with market demands, pay more attention to the improvement of the intellectual property rights protection system itself as well as the financial and technical support related to industrialization of patented technologies. Therefore, enterprises can be supported by improving the judicial and administrative systems (e.g., improving the efficiency of invalidation procedures and infringement lawsuits, increasing the punishment for infringement etc.) and strengthening policy support and guidance (e.g., enriching financing channels, improving patent transfer and introduction market, etc.).

Individual patentees are more concerned about whether their innovation achievements can be successfully industrialized, and less concerned about the protection of their intellectual property rights (only 0.3% of them choose the option of “high cost for national patent protection, easy to be counterfeited”). Therefore, it is more helpful to strengthen economic support (e.g., providing smooth financing channels, improving pledge/transfer of patent technologies, etc.) and to enhance publicity and to raise individual patentees' awareness of IPRs protection.

Based on the above conclusions, the current utility model system will be discussed from several aspects, such as innovation, law, economy, and policy, to try to obtain possibilities for further improvement.

2.3.1 In Innovation aspect

(1) The incentive effects of the current utility model system on innovative activities

With the improvement of China's patent protection system, including the utility model system, in recent years, the patent protection environment in China has significantly improved. According to the survey results published by CNIPA ⁵⁸, the percentage of patentees who believe that the level of IPRs protection in China is appropriate has increased by 10.2% compared to the previous year, while the percentage of those who believe that the level of IPRs protection in China needs to be further strengthened has decreased, falling below 80% for the first time, which shows the recognition of the improvement in IPRs protection by Chinese patentees.

In addition, according to the survey results published by CNIPA ⁵⁹, successive surveys on the impact of the intensity of patent protection on R&D investment (in general, R&D investment is a basic factor for innovation

⁵⁸ See figure 2 on page 2 of Part I of the “2019 China Patent Survey Report”.

⁵⁹ See table 167 on page 121 of the “2018 China Patent Survey Report”.

activities carried out by enterprises) found that for enterprises, patent protection does have a significant positive effect on the increase of their R&D investment: that is, enhanced IPR protection is conducive to increased R&D investment. The survey data for consecutive years (2011-2018) in the table below shows that more than half of the patentees believe that enhanced patent protection consistently promotes increased R&D investment.

Impact of the intensity of patent protection on R&D investment (2011-2018) (unit: %)

	2011	2012	2013	2014	2015	2016	2017	2018
Increased R&D investment with increased protection intensity	57.1	64.0	52.5	46.1	49.6	53.3	52.9	60.1
Decreased R&D investment with increased protection intensity	4.8	5.4	6.6	18.4	22.0	11.0	19.4	9.8
No significant impact	38.2	30.6	28.9	17.3	13.0	22.7	16.5	18.1
Not sure	-	-	11.9	18.1	15.4	13.0	11.2	12.0
Sum	100	100	100	100	100	100	100	100

Table 20

As the data shown in sections 2.2.1 and 2.2.5, in comparison to the European countries under study in this report (e.g., France, whose previous utility model system has been considered unsuccessful or even failed), the number of utility model applications in China maintained a continuous growth and the overall PTI index also remained positive. Additionally, the number of applications not only in China but also overseas (e.g. German utility model applications as shown) have been steadily increasing.

Even in the context of the Chinese government's efforts to crack down on irregular patent applications (which, it is widely believed, account for a much higher proportion of utility model patents than invention patents), the number of utility model applications in China has been growing at a high rate, so it can at least be assumed that the current utility model system in China does provide a good incentive for innovation activities.

However, although the improvement of China's intellectual property protection level has been recognized by Chinese patentees, it cannot be ignored that more than 70% of patentees still hold expectations for further improvement of the existing protection level. Therefore, for the continuous improvement of China's IPR protection system, there is still a long way to go.

In comparison, the feedbacks of surveyed stakeholders and practitioners from European countries show that, some of them (in particular the IP practitioners from enterprise) do not believe that the utility model system has a significant impact on innovation capacity. They do believe that invention patents have a great impact, and they find the utility model system to often be useful, but they do not think that the utility model system in itself affects the innovation capacity to any greater extent. This is perhaps because the utility model system in Europe is generally not used by major companies to protect “real” inventions, it is mainly used by individuals who have made smart things that they often never manage to commercialize. When major companies use the utility model system, it is usually to branch off utility models from pending invention patent applications, which means that there is always also an invention patent application for the invention. It can then not be said that the utility model system in itself has contribution to the innovation capacity in European countries. These surveyed stakeholders and practitioners also pointed out that, in China, many companies use the lower bar for inventive step for utility models as a reason to select utility model protection for inventions they would otherwise have protected by invention patents. If the Chinese system would be changed so that there is only

one level of inventive step (as in Germany and France), it is likely that the major companies would no longer use the utility model system in the way they do today, but instead more like it is used in Europe.

However, the survey respondents in Italy have a more positive view of the contribution of utility models to innovation capacity, specifically to innovation capacity of small and medium sized enterprises. An Italian respondent expressed that:

- Utility models are often referred to as minor, second level patents, but they can be a useful and inexpensive way to protect those innovative technical aspects that would be excluded from patent protection due to lack of sufficient inventive step. In particular, small and medium sized companies can benefit from utility models to protect small innovations, variations or improvements that would otherwise fall into the public domain. Considering that SME play a vital role in the Italian economy, we therefore believe that the contribution of utility model patents is greatly beneficiary for the innovation capacity of Italy.

In addition, the respondents in France believe that the utility model system can have a more positive effect after the amendment of the French patent law.

- In France, we have “utility certificates”. In the past, utility certificates have not been very used in France. However, a recent legislative evolution (the PACTE Act) made its protection longer and it more flexible to obtain extension of the term for utility certificates to 10 years (instead of 6 years previously) and introduction of the possibility to convert them into patent applications right up until the start of the technical preparations for publication (around 16 months from the date of filing). Since that legal amendment, the number of applications has been increasing (+126% in 2019).

(2) Factors for patent quality improvement

As one of the most important indicators reflecting value of a patent technology, patent quality is usually considered to include various factors such as the level of technological research and development, the level of patent literature writing etc.

According to survey data published by CNIPA⁶⁰, 80.1% of the patentees consider the level of technical research and development itself as the most important factor affecting patent quality. In terms of type of patentees, the proportion of patentees holding the above view is 80.2% for enterprises, 97.7% for universities, 90.8% for research institutes and 79.1% for individuals. The proportion of those who consider the quality of patent agency as the main factor affecting patent quality is 30.7% for enterprises, 18.3% for universities, 37.2% for scientific research units and 31.5% for individuals. The proportion of those who considered the quality of patent examination as the main factor affecting patent quality is 26.5% for enterprises, 21% for universities, 29.4% for research institutes and 26.9% for individuals.

From the above data, it can be seen that the Chinese patentees do not have a comprehensive understanding of the factors affecting the patent quality⁶¹. In particular, the percentage of Chinese patentees agreeing with the quality of patent agency and the quality of patent examination as the main factors affecting patent quality is quite low.

⁶⁰ See pages 46-49 of section 1.6 of Part III of the “2019 China Patent Survey Report”.

⁶¹ See pages 193-194 of section 5.1 of Part V, the “2019 China Patent Survey Report” also shows that the larger the size of the enterprise, the more comprehensive its awareness of the main factors affecting patent quality, wherein the large enterprises have a significantly more balanced agreement on the level of technological R&D, the quality of patent representation and the quality of patent examination.

Of course, R&D capability, which is the basis of innovation activities, is certainly one of the important guarantees of patent quality. However, it is not appropriate that some Chinese patentees (e.g., universities, whose recognition of patent agency and patent examination is only 18.3% and 21.0%, respectively) underestimate or even ignore the quality of patent agency and patent examination, a function that is important in transforming innovations into high-quality patents.

In fact, when a technical person is engaged in technological innovations, he or she may not have a comprehensive understanding of all prior arts in the field. It is necessary for patent agencies to do all the pre-filing search and mining work for the applicant to ensure that the patent application submitted is a valuable one that truly meets high-quality requirements. In addition, the applicant may not be informed of the competitors' developments in a timely manner. In order to create a high-quality patent, it is also necessary to have the right technical objectives at the initial R&D stage, avoid innovation points where competitors have already created a patent portfolio, and at the same time make forward-looking patent portfolio for their own innovation points. The subsequent patent application and examination is an important part of a patent in which innovations are transformed into patent rights. A high-quality patent should have a clear degree of disclosure and a reasonable scope of protection in order to achieve the purpose of stable and practicable rights. In the above process, the quality of patent agency and examination is particularly important.

Since substantive examination is not particularly needed for the utility model applications, the role played by patent agencies in the process of producing high-quality utility model patents will be more evident. Specifically, a standardized and professional patent agency can stop the output of low-quality patents at the source.

Therefore, in addition to increasing R&D investment, it is also very important to promote various measures to improve the quality of patent agency and examination.

In fact, the above issues have been given attention by China's relevant departments in recent years. In the implementation plan of the patent quality improvement project introduced by the CNIPA, the patent agency quality improvement project and the patent examination quality improvement project have been implemented as the so-called "four key projects". However, the process is relatively long, and continuous and effective supervision and management will be the key.

(3) Collaborative innovation

As shown in the figure in the introduction of the section 2.3, "lack of supporting technologies and equipment to carry out mass production in a timely manner" is an important factor of concern for both enterprises and individuals.

Generally, the direct solution to this problem is to fully develop cooperative innovation across the whole industry chain. The main advantages that can be achieved through such so-called "collaborative innovation" are:

- sharing of resources and complementary advantages among cooperating entities;
- shortening innovation time and enhancing competitive position; and
- reducing innovation costs and dispersing innovation risks.

There are various modes of collaborative innovation, each with its own applicable conditions, and there is no best mode in absolute sense.

1. Contractual innovation mode. It refers to a collaborative innovation mode which is determined by contract. Generally, enterprises commission universities and research institutions to engage in technology or product research and development, and enterprises provide funds and set innovation goals, while universities and research institutions provide technical experts, necessary technical equipment and carry out innovation process to achieve the innovation goals. This mode enables

enterprises to get the innovation achievements without participating in the innovation process, to speed up the development of new products, new technologies with the advantage of capital, and to accelerate the technological innovation of enterprises; the disadvantage is that enterprises are not able to share the information of the innovation process, which is not conducive to training their own R&D personnel. This mode is more suitable for the development of non-core or generic technologies and non-key products.

2. Project partnership innovation mode. It refers to a collaborative innovation mode in which enterprises form a cooperative organization through partnership in order to complete the research and development of a specific technology project, and jointly engage in R&D activities and share the R&D achievements. This mode is applicable to the innovation of those technical projects that a single entity is unable to complete and facilitates some advanced innovation activities. However, this mode also has inherent defects, mainly in the selection of the partnership entity, the management of the cooperative organization and the sharing of innovation achievements by the partnership parties through negotiation, with high transaction costs, often generates conflicts and interest disputes that cannot be resolved through negotiation.
3. Collaborative innovation base mode. It refers to a collaborative innovation mode in which enterprises and universities or research institutes jointly establish technological innovation bases. Generally, enterprises provide funds and sites, and universities or research institutes provide R&D conditions (equipment) and R&D personnel. In addition to providing intermediate and final results, this mode also has an extremely strong training function, which can train technical personnel for enterprises. Adopting the collaborative innovation base mode is beneficial for enterprises to be close to the technological frontiers, to master the latest developments and to capture the latest technological information. There are also certain problems with the collaborative innovation base, mainly that enterprises are not involved in the specific innovation process and thus cannot share the direct experience of the innovation process. At the same time, the technology transfer from the base to the enterprise is influenced by various factors, such as the technical capacity of the base and the ability of the enterprise to absorb the new technologies, etc. In addition, such mode is often not project-oriented, and the benefits of the enterprise's participation in the cooperation are generally difficult to be accurately valued, especially in the short term.

The survey results published by CNIPA show that ⁶², the percentage of patentees that have carried out collaborative innovations is 78.3%. Among them, 52.1% of enterprise patentees have cooperated with upstream and downstream enterprises and customers, and 27.5% of enterprise patentees have conducted industry-university-institute cooperation with universities or research institutes.

According to the above data, it can be seen that Chinese enterprises tend to choose corporation partners in related industries and are less likely to cooperate with universities or research institutes that have more comprehensive innovation and research capabilities.

In comparison, the proportion of Hong Kong-, Macao- and Taiwan-invested enterprises and foreign-invested enterprises that have conducted industry-university-institute cooperation with universities or research institutions is 30.7% and 30.6% respectively, which is higher than that of domestic enterprises (27.3%).

In addition, 58.0% of large enterprises and 59.4% of enterprises having more than 100 valid patents have conducted industry-university-institute cooperation with universities or research institutions.

According to the survey results, the proportion of China's domestic valid patents produced through industry-university-institute cooperation is 6.5%. In terms of the scale of enterprises, the larger the scale, the higher

⁶² See pages 36-39 of section 1.6 of Part III of the "2020 Patent Survey Report".

the output rate of collaborative innovation between enterprises and universities or research institutes, and the highest output rate of collaborative innovation between large enterprises and universities or research institutes is 7.9%. In terms of patent ownership, the output rate of collaborative innovation between enterprises having 30 to 99 valid patents and universities or research institutes is higher than that of other enterprises, which is 7.4%.

It is evident that the more experienced an enterprise is in IP management, the more it can recognize the advantages of collaborative innovation with universities or research institutes.

In fact, the Chinese universities and research institutes have enough motivation to participate in the industrialization of patent technologies. According to survey data published by CNIPA⁶³, the industrialization rate of domestic valid patents in China is 41.6%. In terms of patentee type, the industrialization rate is 46.0% for enterprises, and only 3.0% for universities.

Specifically, for the industrialization rate of valid utility model patents, it is only 2.1% for universities, and 12.9% for research institutes respectively, both far lower than the 44.6% for enterprises. For the license rate of valid utility model patents, it is only 3.1% for universities and 3.8% for research institutes. And for the transfer rate of valid utility model patents, it is 2.4% for universities and only 2.0% for research institutes.

From the above data, it can be seen that there is a serious mismatch between the patent technology reserves of Chinese universities and research institutes and their ability to apply patent technologies. A large number of patent technologies owned by universities and research institutes cannot generate any actual value, which is a huge waste of resources.

Although China has vigorously pursued the strategy of “deep integration of industry-university-institute cooperation” in the innovation field in recent years, the implementation, license and transfer rates of patented technologies have not shown a significant increase for universities and research institutes⁶⁴. In other words, the effectiveness of this strategy is yet to be verified.

Therefore, when encouraging collaborative innovation among various innovation subjects, how to effectively promote the deep integration of industry-university-institute cooperation between universities and research institutes and industries, especially small and medium-sized domestic enterprises is an issue that China should focus on at present. In this regard, the experience of the U.S. Industry/University Cooperative Research Center (I/UCRC), which is a model of industry-university-research collaborative innovation, is worth learning from China.

2.3.2 In Legal aspect

(1) Judge standard of inventive step

As discussed in section 2.1.15 of the present report, there are different definitions of inventive step for invention and utility model in the current Chinese Patent Law.

Specifically, for example, some provisions concerning the examination of utility models in the invalidation procedure in Chapter 6 of Part IV of the Patent Examination Guideline include:

⁶³ See section 2.1 of Part III of the “2020 China Patent Survey Report”.

⁶⁴ See the relevant data recorded in the “2015-2019 China Patent Survey (Data) Report”:

- Pages 9-14 of sections 3.1-3.2 of the “2015 China Patent Survey Data Report”;
- Pages 24-28 of sections 2.1-2.4 of Part II of the “2016 China Patent Survey Data Report”;
- Pages 25-31 of sections 2.1-2.2 of Part II of the “2017 China Patent Survey Report”;
- Pages 25-31 of sections 3.1-3.2 of Part II of the “2018 China Patent Survey Report”; and
- Pages 50-59 of section 2.1 of Part III of the “2019 China Patent Survey Report”.

- “Inventive step of a utility model means that, as compared with the prior art, the utility model has substantive features and represents progress. Therefore, the requirement of inventive step for a utility model patent shall be lower than that for an invention patent.”
- “The field of prior art references: for an invention, not only the technical field to which the invention patent belongs, but also the proximate or relevant technical fields shall be considered; for a utility model patent, the examiner shall normally focus on the technical field to which the utility model belongs.”

In addition, in Chapter 2.2.2 of Part II of the Patent Examination Guideline, regarding term “technical field” is defined that:

- “The specific technical field usually relates to the lowest position in which the invention or utility model may be classified according to the International Patent Classification.”

Therefore, as previously discussed, in China’s judicial practice, only one or two reference documents are usually used in determining the inventive step of a utility model and only the technical field to which the utility model belongs is considered.

However, in practice, if the technical solution of a utility model is found to be “made by ‘juxtaposing’ of some prior art means”, the inventive step of the utility model can be assessed by citing more than two prior art references according to the circumstance of the case. In addition, if a clear technical teaching is given in the prior art, e.g., there is a clear record in the prior art, to prompt a person skilled in the art to look for technical means in a proximate or relevant technical field, the proximate or relevant technical field may be considered.

Here, the determination of “whether the technical solution of the utility model is based on a juxtaposing” and “whether the prior arts give a clear technical teaching to prompt a person skilled in the art to look for the relevant technical means in a proximate or relevant technical field” is often based on the examiner’s subjective judgment. This may lead to inappropriate citation of multiple reference documents or the combination of multiple related technical fields to judge the inventive step of the utility model, and consequently to the problem of “a definition of a further level of inventive step increases complexity and generates confusion in the public on what is inventive and what not” concerned by the German and French survey respondents.

At the current stage, China has become a major IPR country and is vigorously promoting the patent quality improvement project with a view to transforming into an IPR power. In this context, whether it is still necessary to protect the utility model patents evidently having inferior inventiveness, is a strategic question that deserves in-depth consideration. In fact, without the need to show the “speed of China” by the number of patent applications, it may be a good choice for China to improve the overall quality of utility models by unifying the judgment standards of inventive step of utility models and inventions.

– Typical cases

1. Shenzhen Laidian Technology Co., Ltd and Shenzhen Jiedian Technology Co., Ltd invalidating the utility model patent titled “Charger Rental and Sale Machine” of Shenzhen Tuote Electronics Co., Ltd (Tuote)

[Abstract] The requestors Shenzhen Laidian Technology Co., Ltd and Shenzhen Jiedian Technology Co., Ltd filed a request for invalidating the utility model patent ZL201320826793.3 of the patentee Tuote. The patent in this case relates to the technology of mobile power rental and sale, i.e., shared rechargeable battery. Shared rechargeable battery is a sub-industry that appeared on the “sharing” investment trend and was selected as one of the “Top Ten New Words of Chinese Media in 2017”. After the dramatic growth of shared rechargeable battery in 2017, the industry was reshuffled in the following year, and a number

of patent invalidation and infringement disputes caused widespread concern in the society. The relevant patent of Tuote was exclusively licensed to Shenzhen Zudian Intelligent Technology in 2013, and the independent claims of this patent involved the basic structure of the shared rechargeable battery, so the survival or non-survival of the patent right would have had a great impact on the subsequent market development status. After the hearing, the Patent Re-examination Board issued the decision of invalidation request No. 36684, declaring the patent rights all invalid.

[Typical significance] This case provides a reference idea as to how to obtain the technical teaching in the related technical fields in the determination of inventive step of a utility model patent. Two technical fields should be identified as similar technical fields, when the closest prior art discloses the overall structure of the patent claims except for the subject matter. Only the prior arts that give the clear technical teaching could be used to assess inventive step of a utility model patent.

2. Shenzhen Genesis Machinery Co., Ltd invalidating the utility model patent titled "Plate Loading and Unloading Device and Cell Phone Glass Processing Centre Station" of Suzhou Hengyuan Precision CNC Equipment Co., Ltd.

[Abstract] Suzhou Hengyuan Precision CNC Equipment Co., Ltd is the patentee of utility model titled "Plate Loading and Unloading Device and Cell Phone Glass Processing Centre Station" (Patent No. ZL201520396790.X), the invalidation requestor is Shenzhen Genesis Machinery Co., Ltd. The patent in this case involves a cell phone glass processing device, and both the patentee and the invalidation requestor are product suppliers of the world's largest cell phone glass panel manufacturer, Bern Optical. The trial process of this case involved many legal issues such as the understanding of the technical solution(s) recorded in claims, the judgment of inventive technical hints, and the identification of the use of evidence chain. After the trial, the State Intellectual Property Office made the decision of invalidation request No. 35297 and maintained the validity of the patent rights.

[Typical Significance] This case illustrates that in the examination of inventive step, it is important to consider the existence of technical hint from the prior arts "as a whole", rather than simply juxtaposing or superimposing together the technical means from the prior arts. If there is no possibility of improvements in the closest prior art itself, a person skilled in the art will not be motivated to combine the prior arts, even if another prior art discloses distinguishing technical features that can achieve the corresponding technical effects.

(2) Patentable subject matters of utility models

As shown in the table in section 2.1.9, in France, 'Processes' is a patentable subject matter of utility model patent. In fact, in France, a utility model is considered as a variation of "invention" and enables applicants to obtain patent protection as quickly as possible by adopting no substantive examination in exchange for a fast grant and a relatively short term of protection. Compared with invention patents, the verification of the stability of utility model patents is more often done through the market than through examination by IPR authorities.

In an interview with a head of the IP department of a Chinese Internet hardware company, the head showed great interest in the possibility of utility models to protect processes. He expressed that although the acceleration of invention applications can be achieved by means of prioritized examination and rapid pre-examination, after all, there are great limitations in the field of technologies, so the use of utility models to quickly achieve the protection of processes will undoubtedly be very attractive.

(3) Interconversion of utility model applications and invention applications

For general applicants, they often cannot accurately determine the level of inventive step of their innovative technologies. Therefore, before filing a patent application, it is often very difficult for applicants to decide whether to file an invention or a utility model application, but sometimes they have to file an application in a haste to prevent losing the opportunity to obtain patent rights. Therefore, after filing an application, these applicants may have the idea of converting an invention patent application into a utility model patent application (or vice versa).

Although according to the China Patent Law (2009 Amendment), an applicant may file both an invention patent application and a utility model patent application for the same technical solution, as long as the technical solution meets the subject matter requirements of utility model patents. However, for non-parallel filed invention or utility model applications, it is not possible to convert different types of applications into another by filing a conversion request. In such a case, the applicant can only file a new patent application in time to re-apply for the utility model or invention patent⁶⁵. In this case, if the previous application is more than 12 months old, the applicant will not be able to claim the priority of the prior application when filing a new application and will thus miss the opportunity to make up for the deficiency of the later filed application with a later filing date. Even if applicants can avoid similar problems by filing both invention and utility model patent applications as above mentioned. This practice, however, will inevitably increase the cost for the applicant. Therefore, it would undoubtedly be beneficial to provide a more flexible method of allowing invention and utility model applications to be interconverted.

Moreover, for PCT applications, when entering the Chinese national phase, patent applicants can only file a specific type of patent application.

In contrast, Germany, France (after the 2020 Patent Law amendment) and Italy all allow the interconversion between invention and utility model applications, while allowing double filing of invention and utility model applications.

In addition, Germany also has a more flexible approach, i.e., any number of utility model can be “branched-off” from a pending patent. This makes it possible to have a “broad” patent pending (which can be kept pending indefinitely by filing divisional applications, if needed) and then “branch off” specific utility models against specific infringement products, with a set of claims specifically targeting the infringement (assuming, of course, those claims are supported by the content of the patent application). In this manner the patent is not at risk of being invalidated, since it is not part of the proceedings. Moreover, the claims of the utility model can be made narrow to reduce the available prior art without limiting the patent. Since the utility model is registered quickly (1-2 months) infringement actions can be brought almost immediately after filing of the patent application, without having to wait for the patent to be granted. Such “branching off” is also possible from pending European patent applications and from pending PCT applications valid in Germany.

The above-mentioned “branching-off” practice adopted in Germany is certainly flexible, but it is difficult to predict whether the implementation of this practice in China will lead to some degree of abuse and other undesirable consequences or not, so it can only be considered as a reference practice at this stage.

⁶⁵ The Implementing Regulations of the Patent Law stipulate that: if the applicant claims national priority and the prior application is an invention patent application, he may file an invention or utility model patent application for the same subject matter; if the prior application is a utility model patent application, he may file a utility model patent or an invention patent application for the same subject matter. However, it should be noted that the contents involved in the resubmitted application documents should be consistent with the prior application documents as the basis, and the applicants should be the same.

However, the interconversion mechanism of invention and utility model applications, which is commonly practiced in the European countries under study has been verified and thus can as a proven practice be adopted and implemented by China.

(4) Improvement in the level of intellectual property protection

According to the survey data published by CNIPA ⁶⁶, the proportion of the Chinese patentees who have experienced patent infringements is generally on a downward trend, at 10.8% in 2020, down 17.6% from 2012, and down 6.3% from 2014. This data shows that China's IPRs protection environment has improved in recent years, and the easy or frequent occurrence of patent infringements has been curbed to some extent.

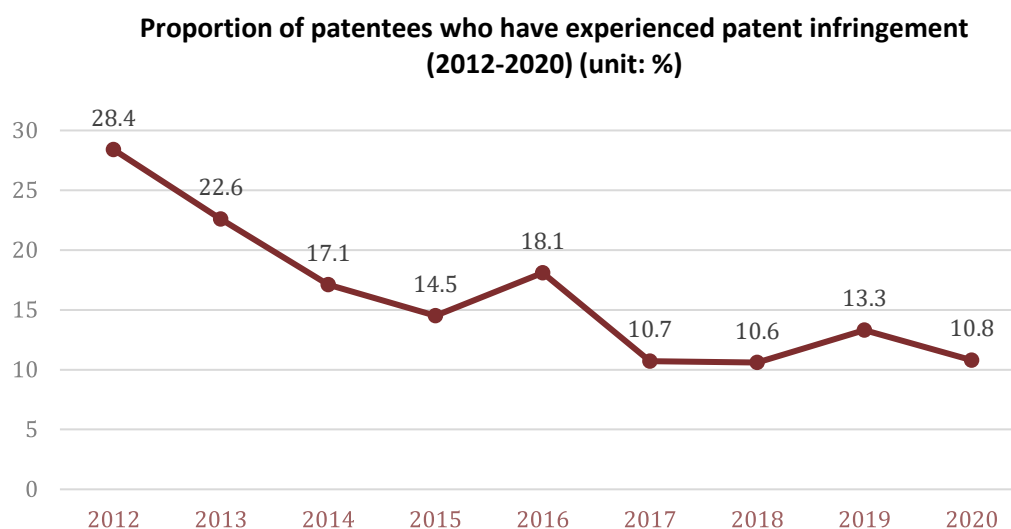


Figure 15

However, as can also be seen from the above chart, after a phase of rapid decline in proportions from 2012 to 2017, the incidence of infringement remains substantially at a fixed level from 2017 to 2020, and in fact shows a slight increase in 2019.

At present, what judicial and administrative measures should be taken to further strengthen IPRs protection, reduce the incidence of infringement and cost of defending, and increase the amount of infringement damages and the satisfaction/confidence of patentees in China's IPRs protection system are key concerns.

In 2020, a survey in relation to patentees' perceptions on the priority of measures to strengthen IPRs protection was conducted by CNIPA. The relevant survey results (see table 21 below) ⁶⁷ reflect the common problems faced by Chinese patentees when infringement occurs. Thus, the measures to solve these common problems, which are of a major concern to patentees, will be the most direct means to enhance the level of IPRs protection and improve satisfaction of patentees.

Patentees' perceptions on the priority of measures to strengthen IPRs protection (unit: %)

	very high	high	average	low	very low
Intensifying the punishment for infringement and counterfeiting	<u>48.6</u>	<u>35.3</u>	15.2	0.6	0.3
Solving the problem of difficult proof for the patentees	<u>39.2</u>	<u>40.2</u>	19.7	0.7	0.3

⁶⁶ See page 131 of the "2020 China Patent Survey Report".

⁶⁷ See section 3.4 of the Part III of the "2020 China Patent Survey Report".

Regulating the standard of evidence in different channels such as justice, administrative enforcement, arbitration and mediation	36.8	41.6	20.8	0.5	0.3
Improving the protection system of the new industry and new areas	35.6	42.2	21.3	0.7	0.1
Optimizing the articulation procedure of authorization, confirmation and maintenance of rights	34.4	42.1	22.5	0.8	0.2
Strengthening cross-departmental and cross-regional collaboration in handling cases	35.1	41.5	22.2	1	0.2
Strengthening the construction of the platform for diversified settlement of intellectual property disputes	35.6	41.1	22	1	0.3
Promoting rapid processing of simple cases and disputes	38.5	40.6	20	0.7	0.2

Table 21

According to the priority levels shown in the above table (i.e., the total proportions of the priority levels considered as “high” or “very high”), the measures that could be promoted at the current stage are, in descending order:

1. Intensifying the punishment for infringement and counterfeiting (83.9%);
2. Solving the problem of difficult proof for the patentees (79.4%);
3. Promoting rapid processing of simple cases and disputes ⁶⁸ (79.1%); and
4. Regulating the standard of evidence for different enforcement channels such as judicial, administrative enforcement, arbitration and mediation (78.4%).

As for the above list terms 1 and 2, relevant legal provisions have been introduced in the newly amended China Patent Law (i.e., the China Patent Law 2020 Amendment, which came in force in June 1, 2021):

Article 71, Paragraph 1 of the Patent Law sets out the actual loss of the patentee and the infringement benefit of the infringer as parallel preferred factors for calculating the amount of damages. The patentee may choose to calculate damages based on his/her own actual loss or the infringer's infringement benefit. There is no absolute difference between the actual loss of the patentee and the infringement benefit of the infringer. However, sometimes the patentee has actual loss, but the infringer has no benefit, sometimes the patentee has no loss but the infringer has a high benefit. If the infringement is intentional and the circumstance is serious, the amount of compensation may be determined at least twice or five times the amount of compensation determined in the manner as above. In addition, the upper and lower limits of the statutory compensation amount are raised to 5 million RMB (about 657,000 EURO) and 30,000 RMB (about 4,000 EURO) respectively.

In addition to the level of damages, the difficulty of proof is an important aspect which should be considered. Generally, the evidence of the actual loss of the patentee is mainly held by him/herself, while the evidence of the infringement benefit of the infringer is mainly held by the infringer. Theoretically, if the enterprise's financial management is standardized, the evidence of actual loss may be relatively easy to prove. Article 71, Paragraph 4 of the Patent Law provides that in order to determine the amount of compensation, the people's court may order the infringer to adduce evidence if the patentee has made every effort to adduce evidence, but the books and information related to the infringement are mainly in the hands of the infringer; if no evidence is adduced, the people's court may determine the amount of compensation with reference to the

⁶⁸ Simple cases refer in general to cases with clear facts, clear rights and obligations, and little dispute.

patentee's claims and evidence. There is no doubt that the reversal of the burden of proof has reduced the difficulty of proof for the calculation of damages by the patentee.

Predictably, in China, the problems to be solved from the legislative perspective at the next stage will be how to promote rapid processing of simple cases and disputes and how to regulate the standard of evidence in for different enforcement channels such as judicial, administrative enforcement, arbitration and mediation.

2.3.3 In Economic aspect

(1) Implementations, licenses and revenue expectations of utility model patents

According to the survey results published by CNIPA ⁶⁹, the benefits of implementing and licensing utility model patents by Chinese patentees, as well as the R&D costs, are summarized in the following table 22 and figure 16.

The benefits of implementing and licensing utility model patents by Chinese patentees, and the R&D costs

(Unit: RMB)	Self-implementation	License	R&D costs
50 Mio. and more	<u>3.2</u>	1.7	0.1
10 - 50 Mio. (excluding 50 Mio.)	<u>4.0</u>	1.2	0.5
5 - 10 Mio. (excluding 10 Mio.)	<u>5.6</u>	2.6	1.2
1 - 5 Mio. (excluding 5 Mio.)	<u>11.1</u>	8.7	6.5
500 k - 1 Mio. (excluding 1 Mio.)	<u>11.5</u>	6.8	9.4
100 k - 500k (excluding 500 k)	11.9	<u>14.9</u>	20.6
50 k - 100k (excluding 100 k)	7.4	13.9	17.0
Less than 50k	7.1	9.2	25.0
No revenue/expense	9.5	<u>16.3</u>	5.7
There is revenue/expense, but it is not clear	<u>28.8</u>	24.8	13.9

Table 22

Self-implementation, License, and R&D costs (unit: %)

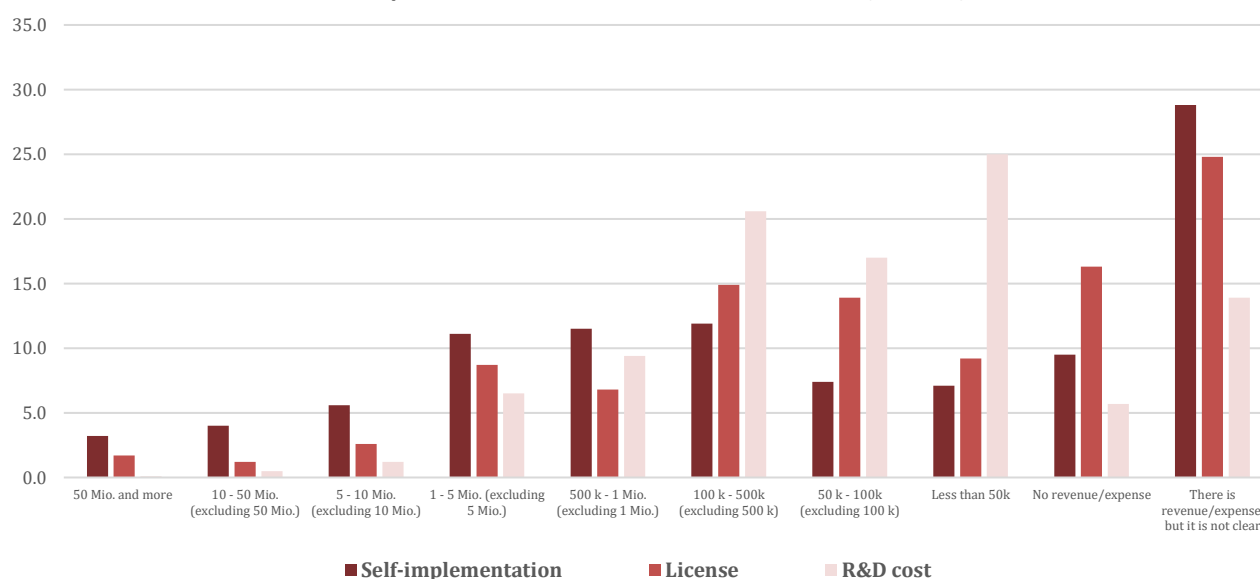


Figure 16

⁶⁹ See sections 1.1-1.2 and 2.1 of the Part III of the “2020 China Patent Survey Report”.

Here, since the license rate of utility model patents in China is low, e.g., 5.4% in 2020 ⁷⁰, when comparing revenue and cost, it considers only the case of self-implementation.

From the above table and figure, it can be seen that:

1. high-value utility model patents (implementation revenue over 5 million) account for 14.8% of all utility model patents, while utility model patents with R&D cost over 5 million account for only 1.8%.
2. medium-value utility model patents (implementation revenue between 500,000 and 5 million) account for 22.6% of all utility model patents, while utility model patents with R&D cost between 500,000 and 5 million account for 15.9%.
3. low-value utility model patents (implementation revenue less than 500,000) account for 35.9% of all utility model patents, while utility model patents with R&D cost less than 50,000 account for 68.3%.

Based on the comparison of the above data, it can be seen that for utility models of medium value or above, patentees have a high probability of gaining revenue by developing and implementing the utility model patent, and this finding is particularly evident for high-value and very high-value utility model patents.

In addition, regarding the change in expected revenue of patent implementation, the survey results also show that 38.2% of the enterprises expected an increased revenue of patent implementation in the coming year compared with the previous year; 35.1% of the enterprises expected an unchanged revenue; and only 3.8% of the enterprises expected a decreased revenue ⁷¹. In general, Chinese enterprise patentees were optimistic about the future growth of patent revenue. This expectation also provided a basis for further increasing innovation efforts and activating existing patented technologies through financial means.

(2) Transfer, pledge and securitization of patents

First of all, regarding transfer of patents, according to survey results published by CNIPA ⁷², the overall transfer rate of valid patents in China in 2020 was 4.4%, specifically the transfer rate of valid invention patents was 6.2% and the transfer rate of valid utility model patent was 4.0%.

Also, according to the 2020 China Intellectual Property Financialization Index Report (Lite Preview Version) published by Guangzhou Intellectual Property Trading Center ⁷³, a total of 303,455 patents and applications were traded (transferred) in 2020, including 161,276 invention patents, 104,920 utility model patents, 41,181 invention applications and 20,396 designs. The invention and utility model patents accounted for 87% of patent transactions and were the main targets of patent transactions.

Regarding the value of the patents traded, the data of the same report shows that among the 303,455 patents and applications traded in 2020, 117,478 patents were worth more than US\$10,000, accounting for about 38% of the total; 108,880 patents were worth more than US\$25,000, accounting for about 35% of the total; 80,391 patents were worth more than US\$50,000, accounting for about 26% of the total; 47,248 patents were worth more than US\$100,000, accounting for about 15% of the total; and 21,956 patents were worth more than US\$200,000, accounting for about 7% of the total ⁷⁴. Obviously, the higher the value of the patent, the less the number of traded patents. According to statistics of self-implementation and license of patents as well as data of patent transfer in the previous sections, it can be seen that Chinese patentees prefer to develop and

⁷⁰ See page 42 of the “2020 China Patent Survey Report”.

⁷¹ See pages 129-130 of the “2020 China Patent Survey Report”.

⁷² See table 67 on page 44 of the “2020 China Patent Survey Report”.

⁷³ <https://www.163.com/dy/article/GDQSLU62051986PN.html>

⁷⁴ See page 13-14 of the “2020 China Intellectual Property Financialization Index Report (Lite Preview Version)”.

implement patented technologies, specifically high-value patented technologies on their own as compared to those that will be acquired through transaction.

Compared to 2015 for example (in 2015, the overall transfer rate of valid patent was 5.5%, specifically the transfer rate of valid utility model patents was 5.2%)⁷⁵, the transfer rate of valid patents in 2020 does not appear to have increased. However, taking into account the significant increase in the number of patent applications and registrations in recent years, the number of valid patent transfers has increased significantly in absolute terms compared to 2015. Therefore, it is clear that there is a real increase in the activity of patent transactions in China. More and more Chinese enterprises are aware of the importance of patents and are willing to realize the economic value by investing in patented technologies to ensure the preservation and appreciation of their assets and maximize their economic interests.

Secondly, regarding the pledge of patents, starting from 2008, the State Intellectual Property Office has carried out dozens of pilot projects on pledge financing of intellectual property rights in Beijing, Jilin, Jiangxi, Hunan, Guangdong, Ningxia, etc. All over the country, governments and related departments at all levels have also formulated and introduced policies and measures, such as subsidizing interest rates, purchasing intermediary services and guarantee subsidies, to promote the pledge financing work.

As shown in the 2020 China Intellectual Property Financialization Index Report (Lite Preview Version), the pledge financing of intellectual property rights, specifically patents, have been widely promoted in China in 2020, and 11,033 patents were pledged for financing, and the pledge amount reached 15.58 billion RMB, up 41.0% year-on-year⁷⁶.

The same report also shows that when compared to abundant financing means of large enterprises, small and medium sized enterprises are limited by their own space, capital and technology, and thus have in general only limited financing channels and collaterals. So traditional financing methods cannot meet the capital needs of the small and medium sized enterprises. A large number of small and medium sized enterprises with several or dozens of patents have become the main participants of patent pledge financing in China.

Finally, regarding IP securitization, as of the end of 2020, a total of 8,533.5 million RMB has been raised for 22 securitization products issued publicly in China. A total of five provincial-level administrative regions in China have publicly issued securitization products with specific financing amounts as shown in the figure below, while most provincial-level administrative regions have not attempted to issue any IPR securitization products.

**Amount of IPRs securitization financing by province
(unit: billion)**

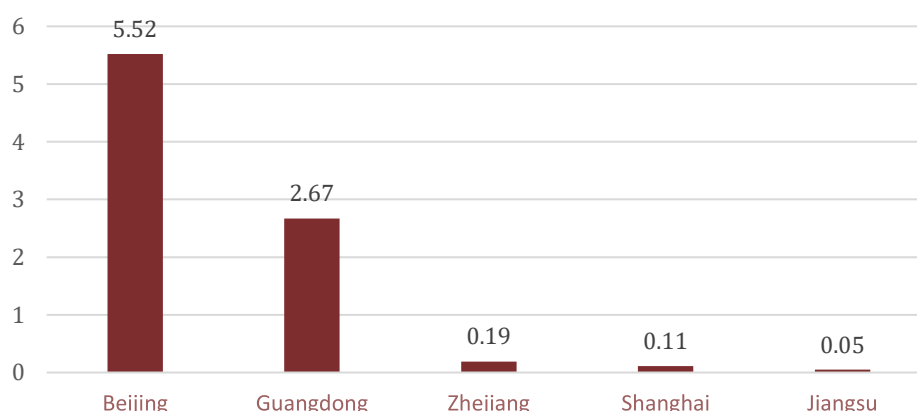


Figure 17

⁷⁵ See the data on page 14 of the “2015 China Patent Survey Data Report”.

⁷⁶ See page 21 of the “2020 China Intellectual Property Financialization Index Report (Lite Preview Version)”.

Securitization products are based on predictable future returns, and so is the securitization of IPRs. In the past, China's IPRs, especially patents, were large in number but low in quality, the overall transformation rate was low, and the legal protection environment of IPRs was imperfect. Therefore, it was difficult for the IPR holders to obtain stable annual returns from industrializing their IPRs or licensing them to industrializers. As a result, the development of IPRs securitization in China was limited. With the improvement of the protection environment of IPRs in China in recent years, the securitization of IPRs has been slowly developed.

The following table provides a comparative analysis of the financialization ability of patents under different financing methods ⁷⁷.

Financialization ability of patents under different financing methods

Scope of data statistics	Amount of financing (unit: billion)	Number of Patents	Average amount of financing for a single patent (unit: million/pc)
Financing of 9 patent securitization products publicly released in China as of 2020	1.72	729	2.36
Patent pledge financing in China in 2020	155.8	64302	2.42
Patent transactions in Guangzhou Intellectual Property Trading Center from January to May 2021	0.25	604	0.41

Table 23

According to the data in the above table, it can be seen that when financing through securitization of IPRs, without losing the ownership of patent rights, enterprises can raise 2.36 million RMB through a single patent. In comparison, the financing amount of a single patent pledge is 2.42 million RMB, which is substantially the same as that of securitization. In contrast, the financing ability of patent transaction is significantly lower than that of pledge financing and securitization financing, in which the financing amount of a single patent transaction in Guangzhou Intellectual Property Exchange Center is 410,000 RMB.

Since patent transfer transactions result in the loss of patent ownership, while patent pledges and securitizations do not, patent transfer transactions should have yielded higher returns than patent pledges and securitizations, but the above table shows that the financing capacity of a single patent transaction is much lower than that of pledges and securitizations, which reflects the current difficulties in the financialization of IPRs in China.

The 2020 China Intellectual Property Financialization Index Report (Lite Preview Version) pointed out, the reason for the above is that China's IPR financialization market is still immature, niche and closed. In particular, only the best qualified patents and the best qualified patentees can enter the pledge and securitization markets for financing. The enterprise qualification and policy support provide credit enhancement for IPR pledge and securitization financing, and significantly strengthen the financing ability of a single patent. In contrast, the patent trading market is a market for direct transactions between supply and demand, without the participation of financial institutions and the government, and the policy encourages patent technology trading but does not strengthen the value of patents. Therefore, the financing ability of patent transaction is significantly lower than that of patent pledge and securitization.

⁷⁷ See pages 69-70 of the 2020 China Intellectual Property Financialization Index Report (Lite Preview Version)

– Typical case

- Shenzhen Yumei Decoration Technology Co., Ltd, Dongguan Pingyao Hardware Co., Ltd invalidating the utility model patent titled “An All-In-One Selfie Device” of Yuan Desheng Plastic Electronics (Shenzhen) Co., Ltd.

[Abstract] The utility model patent "An All-In-One Selfie Device" (Patent No. ZL201420522729.0) in this case involves a selfie stick that requires no temporary assembly when in use and folds for storage without taking up additional space. The patentee is Yuan Desheng Plastic Electronics (Shenzhen) Co., Ltd (Yuan Desheng), the invalidation requestors are Shenzhen Yumei Decoration Technology Co., Ltd and Dongguan Pingyao Hardware Co., Ltd. After the hearing, the Patent Re-examination Board made the decision of invalidation No. 35919 and continued to uphold the patent rights of claims 2-13.

[Typical significance] The seemingly simple utility model patent in this case won the twentieth China Patent Award, and the relevant patented product has been bringing hundreds of millions of RMB sales income to Yuan Desheng every year. In addition to the production of the patented product, Yuan Desheng has carried out large-scale legal actions to defend its IPRs nationwide since 2015. A large number of infringement lawsuits have been filed by Yuan Desheng against large shopping malls, supermarkets, and electronic products stores in more than 20 provinces and cities across China, and thousands of these lawsuits have been concluded, and Yuan Desheng has not lost a single lawsuit. Relying only on this utility model patent, Yuan Desheng has received a compensation of hundreds of millions of RMB in total (in average, tens of thousands of RMB for each infringement lawsuit). Obviously, the utility model patent can also create huge profits for patentees.

Since 2016, more than 20 invalidation requests have been filed against this utility model patent. In the invalidation decisions already issued, only the original claim 1 has been declared invalid, all other claims were upheld as valid. The fact that this utility model patent has undergone so many invalidation lawsuits proves the high quality and strong stability of this utility model patent. In other words, a high-quality utility model patent could realize its value as a business asset.

2.3.4 In Policy aspect

A survey was conducted related to the policy needs of enterprise innovation development in 2019⁷⁸. Specific survey data is summarized in the following tables:

Patent policies or incentives most needed by enterprises of different registration types for innovation development (Unit: %)

	Domestic enterprises	Hongkong- Macao- and Taiwan- invested enterprises	foreign- invested enterprises	overall
Special funding support policy of government	79.5	80.2	76.2	79.5
License, transfer and other income tax relief policies	45.2	47.1	43.4	45.2
Tax credits for R&D investment, patent application and maintenance, etc.	66.4	76.2	75.7	66.8
Communication channels with the government	20.5	22.1	23.0	20.6

⁷⁸ See pages 133-134 of the 2019 China Patent Survey Report

Other	0.4	0.7	0.0	0.4
no need	2.6	4.0	0.9	2.6

Table 24

Patent policies or incentives most needed by different sized enterprises for innovation development (Unit: %)

	Large enterprises	Medium-sized enterprises	Small enterprises	Micro enterprises	Size unspecified	Overall
Special funding support policy of government	76.6	79.8	<u>80.5</u>	79.1	71.3	79.5
License, transfer and other income tax relief policies	46.5	<u>46.7</u>	44.7	46.1	36.6	45.2
Tax credits for R&D investment, patent application and maintenance, etc.	70.5	<u>72.2</u>	68.2	63.4	48.7	66.8
Communication channels with the government	<u>22.5</u>	21.1	19.2	22.2	21.8	20.6
Other	0.8	0.1	0.5	0.4	1.1	0.4
no need	1.8	1.0	2.0	3.4	11.7	2.6

Table 25

From the above data, it can be seen that, in general, enterprises have the highest demand for “special funding support policy of government”, with a ratio of 79.5%, followed by “tax credits for R&D investment, patent application and maintenance, etc.”, with a ratio of 66.8%.

In terms of enterprise size, small enterprises have a relatively high demand for “special funding support policy of government”, with a ratio of 80.5%. Medium-sized enterprises have a higher demand for “tax credits for R&D investment, patent application and maintenance, etc.” and “License, transfer and other income tax relief policies”, accounting for 72.2% and 46.7%, respectively. Large enterprises have a higher demand for “communication channels with the government”, accounting for 22.5%.

It is clear from the above data that there is still a great demand from Chinese enterprises for various types of financial support that the government can provide.

Although China has cancelled various funding policies at the patent application stage to combat irregular patent applications, for enterprises, but it will be very helpful to provide some policies on financial incentives and subsidies for valuable patents, especially high-value patents, that have been granted and maintained normally, as well as tax deductions for license and transfer. Such policies can have positive impacts in encouraging enterprises to invest more in R&D to produce high-quality patents and further activating the licensing and transfer market.

3. CONCLUSIONS

This study updates an IP Key 2014 comparative report on the utility model systems in China and selected European countries. This study's key findings, usage, and proposed improvements of the utility model system in China are summarized below:

Key Findings (only changes in comparison to 2014 have been listed below for the sake of clarity):

Duration of protection: after the reform of the French utility model certificate system, duration of protection in all countries under study is ten years.

Official costs: official costs for utility models remains substantially stable, with slight increase in France and China. It is expected that an increased total cost of filing and maintaining patents in China may continue to encourage improvement on patent quality and reduce patenting volumes, and the number of annual fee payments is likely to decrease to mitigate expiration risks.

Monetary incentives for filing: the CNIPA announced in early 2021 that all levels of funding for pending patent applications will be cancelled by end June of the same year, with an aim to improve the quality of patent applications and decrease the number of irregular patent applications.

Time to grant: in China, the examination cycle of a utility model in certain fields (e.g., new energy, internet technology, new-generation information technology, green technology, and other key industrial technology fields etc.) could significantly be shortened to 2 months through prioritized examination and rapid Pre-examination.

Invalidation: the Patent Re-examination Board in China was incorporated into CNIPA as the Re-examination and Invalidation Department of the CNIPA. The CNIPA implemented various measures to improve the efficiency in handling patent dispute cases. For example, the Beijing Municipal Intellectual Property Office (BMOIPO) set up the so-called "Joint Oral Hearing". It is reported that, the "Joint Oral Hearing" allows two administrative authorities to examine a patent infringement case and a patent invalidation case simultaneously, to improve efficiency and quality of handling different types of patent cases through "seamless connection" between different qualified authorities (if the same patent was involved). The BMOIPO was setup to enable administrative authorities to jointly examine patent infringement and patent invalidation cases simultaneously in the same court/location. This "Joint Oral Hearing" mechanism helped improve the efficiency and quality of handling patent infringement and invalidation cases involving the same patent.

Infringement proceedings: In China, following the establishment of the IP Court of the Supreme Court, three dedicated IP courts, and 20 intellectual property tribunals, a so-called "1+3+20" intellectual property jurisdiction has been established. The newly established SPC IP Court enjoys a national jurisdiction over technical civil IP cases as well as appeals of patent validity decisions. In addition, the upper limit of statutory compensation has been raised to 5,000,000 RMB (about 651,500€), and a punitive damages system has been added. After the amendment of the Patent Law in 2020, according to the "punitive principle", the final infringement compensation amount equals 1.5 times the compensation amount based on the actual loss of the right holder, the illegal profit of the infringer, and a reasonable multiple of the license fee.

According to the above listed key findings in the European countries under study, the utility model systems in Germany and Italy are quite mature and have remained substantially unchanged over the past few years. France has amended the Patent Law in 2020, to reform the former utility certificate system, that was considered unsuccessful or in fact even a failure. The main changes include the extension of protection period and the ability to convert utility model applications to invention applications.

In comparison, China has developed and implemented various measures to improve the overall IPRs protection system including the utility model system. Since 2014, the number of patent (in particular, utility models) applications and registrations in China has maintained rapid growth. The efficiency of examination procedure has significantly increased, and the time to grant a common utility model application is shortened and stabilized at approximately four to six months. The PTI index remained generally above the prosperity dividing line of 50, which shows that the activities of valid patent transfer and transformation in China has been increasing.

Although China's IPRs protection environment has been improving, according to the 2015-2020 China Patent Survey (Data) Report published by CNIPA, the incidence of infringement remains at a substantially fixed level from 2017 to 2020, and more than 70% of the Chinese patentees still expect improvement to continue.

With reference to the proven practice of European countries under study, China's utility model system may further be developed by:

- specifying the standards for assessing inventive step of a utility model patent as compared to that of an invention patent;
- allowing the interconversion of utility model applications and invention applications to offer options for patent applicants to choose after filing a patent application;
- promoting various measures to further improve the quality of patent, including supervision and guidance to patent agencies to improve the quality of patent drafting services;
- promoting collaborative innovation concerning industry/university/institute collaborations and their ability to convert research into patent assets for corporations;
- promoting rapid processing of simple cases and disputes, especially for utility model patents concerning lower-level technological improvements;
- regulating the standard of evidence for different enforcement channels such as judicial, administrative enforcement, arbitration and mediation;
- enriching financing channels, especially improving the intellectual property securitization financing system;
- providing support policies on financial incentives and subsidies for valuable patents, as well as tax deductions for licensing and transfers; and
- increasing the total cost of filing and maintaining patents, to encourage innovations of high value to be filed, ultimately reducing the number of low-quality patents being filed in China.

4. ANNEXES

4.1 List of Survey Respondents and Interviewees

4.1.1 List of Survey Respondents

No.	Respondent Type	Organisation Type	Proportion	Location
1	Practitioners	IP Firm	73%	China, Sweden, French, Germany, UK
2	Inhouse Counsels	Corporation	24%	China, Germany, UK, Sweden
3	Researchers	Organization	3%	China

4.1.2 List of Survey Interviewees

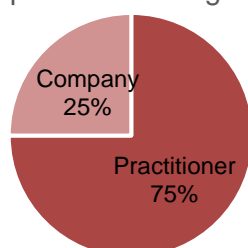
No.	Interviewees	Organisation type
1	Head of Patents	Chinese High-tech Company in AI Industry with business in Europe
2	Legal Counsel	MNC consumer goods company with business in China and Europe
3	Patent Counsel	Chinese Tier 1 company in packaging industry
4	Head of IP	Sweden based MNC with business in China
5	IP Counsel	Sweden based MNC with business in China
6	IP Counsel	EU based MNC with business in China
7	Sweden Practitioner	Sweden IP Firm
8	Anonymous French IP Advisor	French Firms and Companies
9	Italian Legal Counsel	EU based MNC with business in China
10	Italian Practitioner	Italian Law Firm
11	Italian Practitioner	Italian Law Firm

Notes: MNC refers to Multi-national Corporation, AI refers to artificial intelligence.

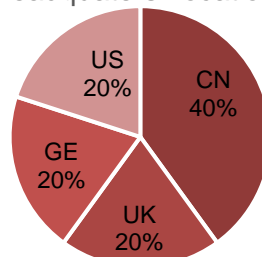
4.2 List of Survey Results

4.2.1 Survey Respondents Introductory

Respondents Background



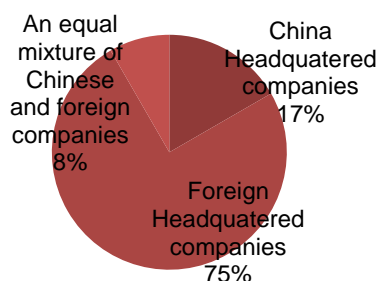
Headquarters Location



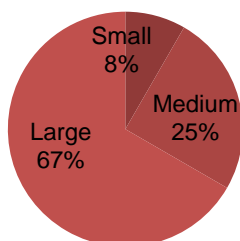
4.2.2 Questionnaire Results

- *Practitioner Questionnaire Results*

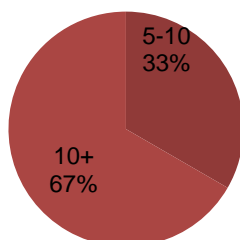
1.1 What kind of companies do you mostly act for?



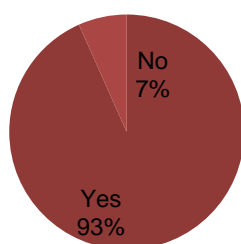
1.2 What size of companies do you mostly act for?



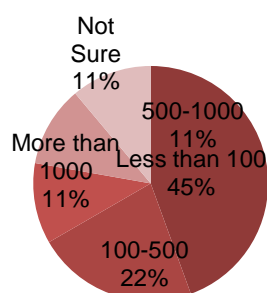
1.3 How long have you been practicing IP law?



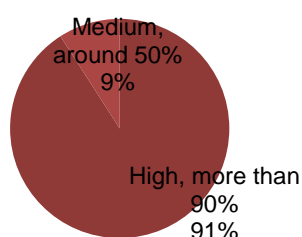
1.4 Did you or your clients have any experience of utility model patents application in Chinese?



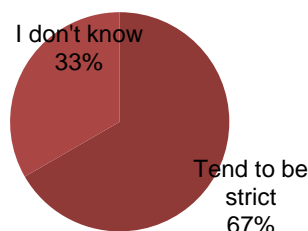
1.5 How many utilities model patents have you or your clients applied for in last five years? About _____



1.6 What is the authorization rate of your or your clients' utility model patent application?



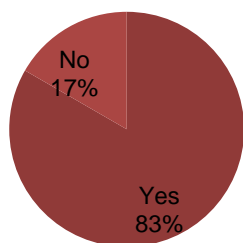
1.7 Do you think is there any trend change in the examination scale of utility model patent in China in the past five years?



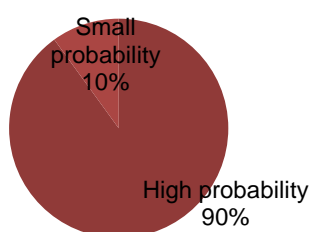
1.8 Why do you think your clients apply for utility model?



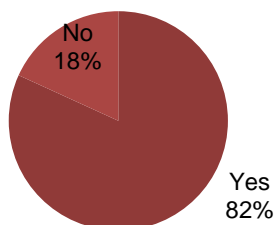
1.9 Have you ever made any suggestions for your clients to apply for invention and utility model patents for the same technical solution at the same time?



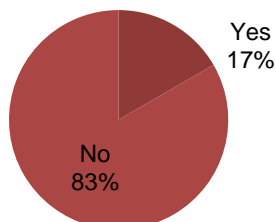
1.10 What was the rate of your clients to accept the above suggestion?



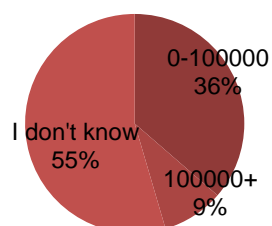
1.11 Do you think it is helpful to apply for invention and utility model patents for the same technical solution at the same time?



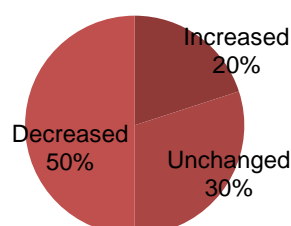
1.12 Have you ever suggested that your clients to apply for utility model patents for filing subsidies?



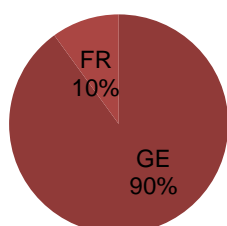
1.13 How many utility model patent subsidies did you help your clients to obtain in last five years? CNY



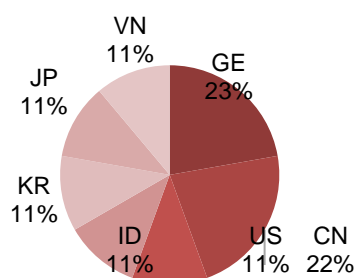
1.14 What do you think is the trend of utility model patent application subsidies in the past two years?



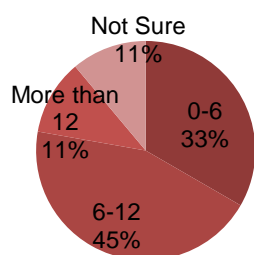
1.15 In the foreign related utility model patent cases you have dealt with, which EU countries have more utility model patent applications in China?



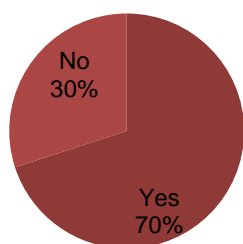
1.16 In which countries did your clients apply for utility model patents mainly?



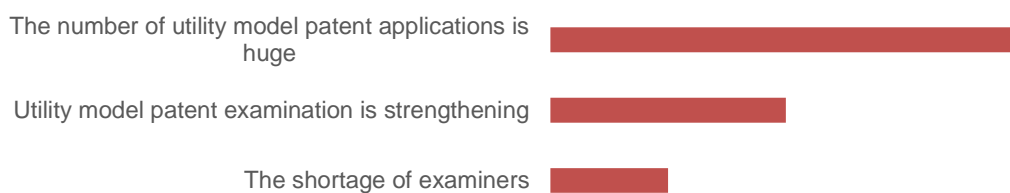
1.17 How long it takes for utility model patent examination? (months)



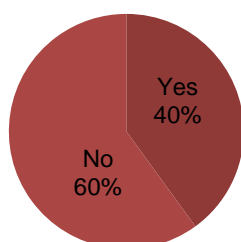
1.18 Were you or your clients satisfied with the current speed of utility model patent examination?



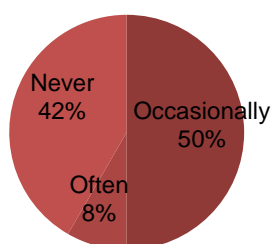
1.19 What do you think is the main reason for the delay of utility model examination?



1.20 Have you ever been rejected for utility model application by referring to the prior art?



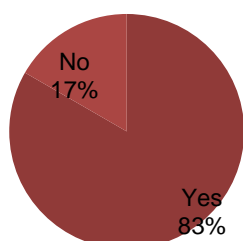
1.21 Have you ever applied for Patent Evaluation Reports?



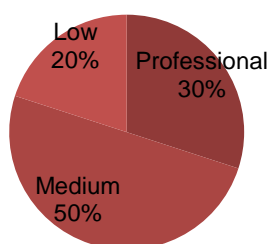
1.22 Why did you apply for Patent Evaluation Reports?

100% for patent infringement suits.

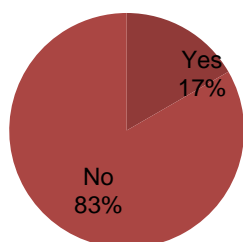
1.23 What do you think of the search and evaluation quality of Patent Evaluation Reports?



1.24 Would you analyze and consider the patentability by yourself before applying for Patent Evaluation Report?



1.25 Have you ever searched others' patent evaluation report issued for utility model?

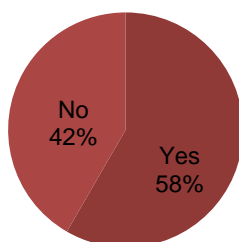


1.26 Why did you retrieve?

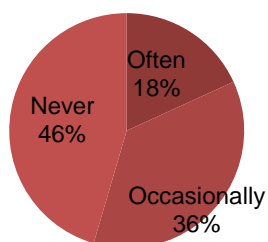
For analysis of competitors' patents 

For analysis of prior art 

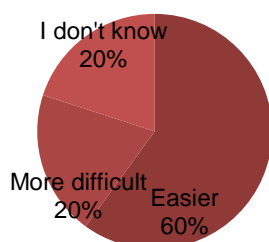
1.27 Have you ever filed invalidation requests of utility model patent for clients?




1.28 If your clients are dissatisfied with the review decision on patent invalidation, have they ever brought the patent administrative litigation?




1.29 How difficult do you think the utility model in invalidation procedure is, as compared with invention patent?



1.30 If it is more difficult, what do you think the reason is?

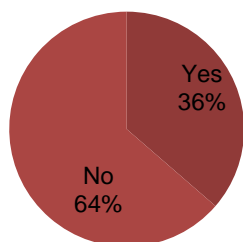
The creativity requirement of utility mode is lower than that of invention patent 

It is not possible to combine prior art literature when invalidate utility model 

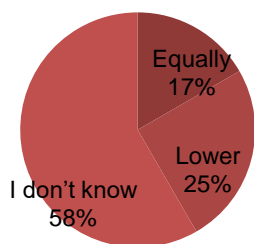
1.31 If it is less difficult, what do you think the reason is?



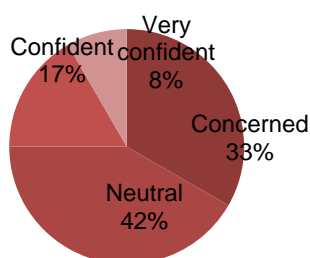
1.32 Have you ever conducted utility model patents protection method for clients, such as administrative complaints and infringement lawsuits?



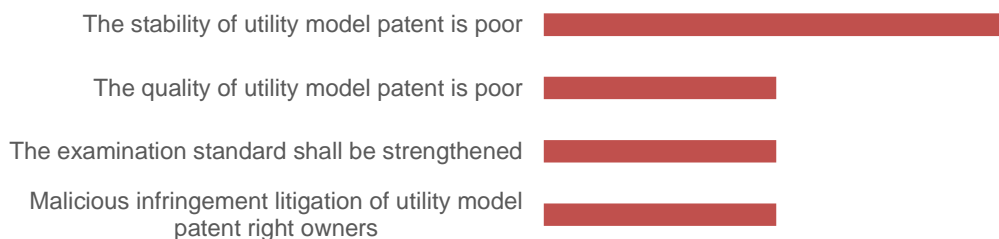
1.33 What do you think of the judicial protection (such as the compensation amount) in utility model cases compared with invention patent infringement cases?



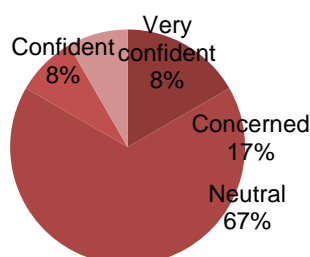
1.34 To what extent are you worried about/ confident about the innovation capacity of utility model patent system?



1.35 If you are worried, what are your main concerns?

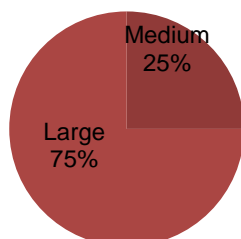


1.36 To what extent are you worried about / confident about the economic benefit of utility model patent system?

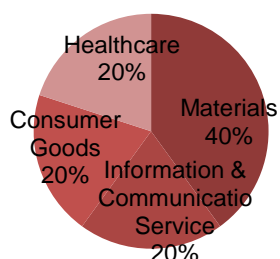


• Company Questionnaire Results

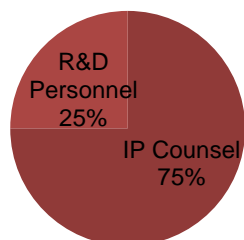
2.1 What is the size of your business



2.2 In which industry does your business operate?



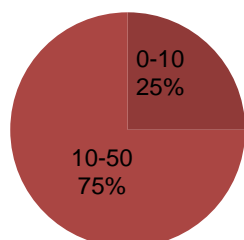
2.3 What is your position?



2.4 Did you have any experience of utility model patents application in China?

100% Yes.

2.5 How many utility model patents have you applied for in last five years?



2.6 What is the authorization rate of your utility model patent application?

100% Higher than 90%.

2.7 What is the trend of the examination standard for utility model patent in China in the past five years?

100% Tend to be strict.

2.8 Why did you apply for utility model?



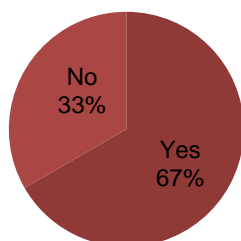
2.9 Did you think if there any help of utility model to help protect your product innovation?

100% Yes.

2.10 What's the proportion of your annual expenses on application and maintenance of utility model patents in the total patent fees?

100% 40-60%.

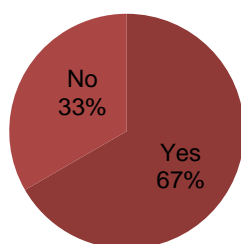
2.11 Have you ever applied for invention and utility model patents for the same technical solution at the same time?



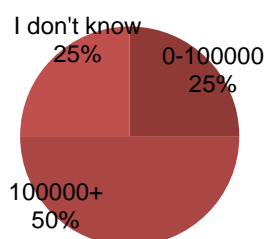
2.12 Do you think it is helpful to apply for invention and utility model patents for the same technical solution at the same time?

100% Yes.

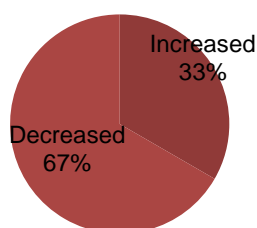
2.13 Have you ever applied for utility model patents for filing subsidies?



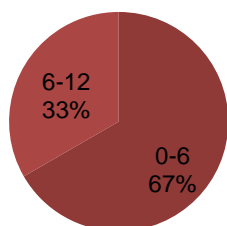
2.14 How many utility model patent subsidies did you obtain in last five years? About CNY



2.15 What do you think is the trend of utility model patent application subsidies in the past two years?



2.16 How long it takes for utility model patent examination? (months)




2.17 Were you satisfied with the current speed of utility model patent examination?

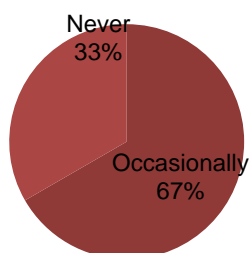
100% Yes.

2.18 What do you think is the main reason for the delay of utility model examination?

Utility model patent examination is strengthening 

The number of utility model patent applications is huge 

2.19 Have you ever applied for Patent Evaluation Reports?



2.21 Why did you apply for Patent Evaluation Reports?

100% For patent transfer or licensing transactions.

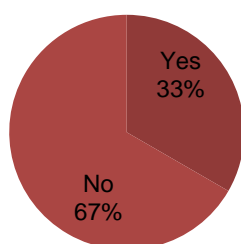
2.22 What do you think of the search and evaluation quality of Patent Evaluation Reports?

100% Medium.

2.23 Would you analyze and consider the patentability by yourself before applying for Patent Evaluation Report ?

100% Yes.

2.24 Have you ever searched others' patent evaluation report issued for utility model?



2.25 Why did you search?

100% For analysis of prior art.

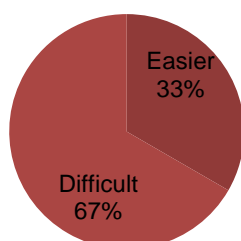
2.26 Have you ever filed invalidation requests of utility model patent?

100% No.

2.27 If you are dissatisfied with the re-examination decision on patent invalidation, have you ever brought the patent administrative litigation?

100% No.

2.28 How difficult do you think the utility model in invalidation procedure is, as compared with invention patent?



2.29 If it is more difficult, what do you think the reason is?

It is not possible to combine prior art literature when invalidate utility model



It is difficult to find the prior art data of the utility model



The creativity requirement of utility mode is lower than that of invention patent



2.30 If it is less difficult, what do you think the reason is?

100% Poor stability of utility model right as there is no substantive examination during application process.

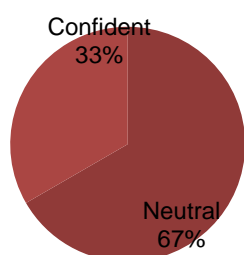
2.31 Have you ever conducted utility model patent rights protection method, such as administrative complaints and infringement lawsuits?

100% No.

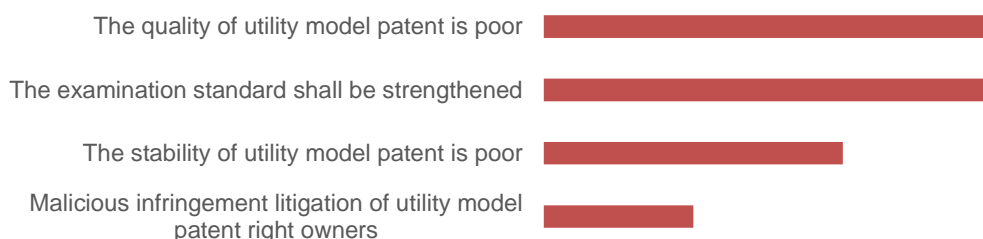
2.32 What do you think of the judicial protection (such as the compensation amount) in utility model cases compared with invention patent infringement cases?

100% Lower.

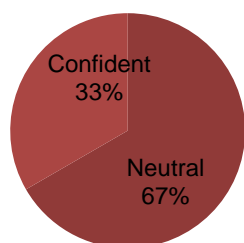
2.33 To what extent are you worried about / confident about the innovation capacity of utility model patent system?



2.34 If you are worried, what are your main concerns?



2.35 To what extent are you worried about/ confident about the economic benefit of utility model patent system?



4.3 Interview Transcripts (Machine Translation)

4.3.1 Interview with Head of Patent from a Chinese High-tech Company in AI Industry

Interviewer(s)	China Based Patent Attorneys from Lusheng Law Firm / Rouse Network
Interviewee(s)	Head of Patent Chinese High-tech Company in AI Industry with business in Europe
Date of Interview	2021-04-07
Location of interview	Online Meeting

Rouse Could you please answer a few more questions about utility models? Do you have any thoughts on the current Chinese utility model system? China's utility model system is basically aimed at mechanical inventions and creations, but the understanding of utility models in other countries is similar to a small invention that can protect technical topics such as methods. Do you think you can learn from the experience of these countries?

Interviewee The protection object limit of utility model is quite large. I understand that it may belong to a subset of inventions, and the technology of utility models can also be protected in the form of invention patents, except for the requirement of creativity. For the communications or chip industry, there are not many opportunities for companies to use utility model patents. I have read some articles, saying that there are very few utility model patent applications in the field of electrical communication. The circuit structure protects only the connection, or if there is a control method in the circuit, this object is not suitable for utility model protection. For companies in the electrical and communications industries, we have lost the way to protect small inventions and small improvements with the use of a patent type. However, utility model patents themselves are still quite valuable. First, utility model patents are quickly granted; second, utility model patents are difficult to invalidate because of their low creativity. If you can refer to the idea of using utility models to protect small inventions in other countries, it is also good.

Rouse Is it possible to say that our conclusion should be considered from the legislative perspective? Utility models can also protect objects other than machinery.

Interviewee Yes. But conversely, if utility model protects small inventions, what is the difference between utility model patent application and a normal invention patent application? Australia also has this small invention system. If we only expand the scope of utility models, will it lead many people to apply for patents that are not highly creative, aiming to obtain the patent rights only.

Rouse Just regarding a small invention, can we reduce the abuse of the patent application system through the establishment of a substantive examination process?

Interviewee Will utility models protect the scientific and technological development? In other words, the legislation is very likely to be delayed. The situation may be that applicants for small inventions may have weaker financial strength and need to reduce their application burden. If utility models expand to a large extent, the next question is how the law distinguishes the boundaries between utility models and inventions.

4.3.2 Interview with Legal Counsel from a MNC consumer goods company with business in China and Europe

Interviewer(s)	China Based Patent Attorneys from Lusheng Law Firm / Rouse Network
Interviewee(s)	Legal Counsel in Asia MNC consumer goods company with business in China and Europe
Date of Interview	2021-04-09
Location of interview	Online Meeting

Rouse We also have a few questions about utility models. In fact, your company does not have many utility model patents, mainly invention and design patents.

Interviewee No, we don't. If we want to apply for a patent, we will definitely consider the type of patent application. The invention patent itself has the highest value and the strongest protection. Design patent application depends on the specific situation of the projection. For example, we release many new products and designs every season. From the perspective of economic costs, it is impossible to apply for invention protection. In addition, product upgrading is too fast. After our patent application, whether there is a need for patent use and rights protection is also important to be considered.

Whether to apply for a utility model also depends on the situation. Many of our product designs and development are done by entrusting external suppliers, or directly purchasing and quoting external R&D results, and more often we use off-the-shelf third-party technology. Therefore, there are not many utility models that we have applied for in China.

In addition, our important product development is completed in the US headquarter. The US headquarter may give priority to invention patents to include product innovation, and their understanding and knowledge of utility models may be different from ours in China. Moreover, utility models do not have much effect after applying for authorization, and our demand for patent applications and rights protection is not so much. This is the cause of the industry itself. If the identification of high-tech enterprises is required, our current number of patent applications has not yet reached, and we have no application for patent funding and subsidies. Obtaining a large number of patent applications is of little practical significance to business operations. Therefore, when there are real technological innovations, we give priority to apply for invention patents or considering other ways of protection such as technological secrets.

Rouse You just mentioned that the understanding of utility models in US companies is different from same in China. What do you think is the difference in understanding of utility models? What does it specifically mean? China limits the protection objects of utility models to product structure types. If it is similar to France or Germany and defines a utility model as a small invention, it can protect small method improvements, will it be more attractive?

Interviewee The biggest difference is that the US does not have utility model patents, so they cannot get some funding support based on research and development. In fact, China's R&D and operation models are also related. I just mentioned that many of our company's product designs come from outside, and there are not many internal R&Ds in Chinese companies.

Rouse Do you have any thoughts on utility models in terms of the significance of your application, the scope of protection, the subject of protection, and its role in litigation rights protection?

Interviewee Utility models are definitely useful, and it must be meaningful for China's patent system to have this type of patent. Each company has different perceptions, but it protects more product structure than methods, such as software and big data. Americans care more about invention patents than software copyright registration. In addition, because a utility model is authorized without substantive examination, its value is not so high. The significance of utility model patents to us is not so great.

As the plaintiff in the process of protecting the rights of a utility model patent, the litigation cost is relatively high, but the amount of compensation is relatively low. I feel that utility models are not as high-quality as invention patents. However, in the protection of rights, the requirements for the stability of utility model patents are not low.

Rouse What's your opinion on the procedure for affirming the rights of utility models? The invalidation decision of the patent administrative agency is an administrative decision, and it must go through the administrative litigation of the first instance and the second instance of the court to finally determine the validity of the administrative decision, thus returning to the patent infringement judgment. Because the administrative litigation process is too long, is it harmful to the right holder of the legitimate patent application? Because the right is to protect

the competitiveness of the market. The improvement of the law may need to balance the needs of all aspects.

Interviewee Agree. In order to balance the interests of all parties, it is better to consider introducing restrictions and conditions for the protection of utility models. For example, if the amount of the target is small, a quick judgment procedure can be initiated. I think the value of the patent and the subject matter of the lawsuit are proportional in most cases. Experienced intellectual property courts can make such judgments.

Rouse I can feel that you are not really interested in utility model patents and have been talking about this from the perspective of public interest.

Interviewee Very little. Industries that can use utility model patents may be concentrated in traditional industries, such as manufacturing. It is difficult for this kind of industry to produce a large quantity of pioneering innovations, and more are small inventions and small improvements, such as improvements in mechanical structures. The real innovation is to use invention patents as much as possible to protect. If this type of patent has less significance in protecting innovation, it should be protected and used conditionally.

Rouse Is it possible to set the upper limit for the trial period in the court?

Interviewee Assuming that I am the right holder, the subject matter of patent infringement litigation is relatively large. Extending the trial period of the lawsuit means that my losses will increase. On the contrary, if the subject matter is small, it does not matter if the time is extended. In different positions, the opinions on whether to extend the trial period are different.

Rouse Regarding China's compensation for utility model patents, the latest amendment introduces punitive damages. What do you think of the status quo?

Interviewee I have no particular opinion on this.

4.3.3 Interview with Patent Counsel from a Chinese Tier 1 company in packaging industry

Interviewer	China Based Patent Attorney from Lusheng Law Firm / Rouse Network
Interviewee	Patent Counsel Chinese Tier 1 company in packaging industry
Date of Interview	2021-06-03
Location of interview	Face to Face meeting, BJ

Rouse What types of patents do you often find risky during the search process?

Interviewee Generally, utility model and design patents are retrieved risky. If we find invention patents, we will attach great attention to them. Because the stability of invention patents is much better than utility models and appearance designs. If we find utility models and designs risky, we basically feel that the risk of infringement is very low. On the one hand, the possibility of a patent being invalidated is greater; on the other hand, the actual risk of being sued is not high.

Rouse How do you feel about the quality of Chinese utility model patents?

Interviewee I think it seems not very good, or even bad. I read an article saying that a major part of China's utility model and design patents can be invalidated. If it does not work once, do it again, there is a high probability that these patents will be invalidated. I think it makes sense.

Rouse Do you think utility models and designs account for more of the bad faith applications?

Interviewee Yes, it is.

Rouse Utility models are not available in all countries. Do you think this type of utility model patents has significance in China?

Interviewee I think utility model patents are still necessary. Some technologies do not meet the innovative requirements of invention patents, especially for the update and change of packaging structure made by our company, it is difficult to meet the creative requirements of invention patents. Utility model patents are a good way of protection.

- Rouse** In some countries, there are other types of protection objects for utility models, including processes and methods. Basically, invention patents can protect it as well. China's utility model patents are limited to the protection of products. Do you think it is necessary to expand the scope of protection?
- Interviewee** I think the overall plan needs to be legislated. If it is said that a kind of object can be protected by invention or utility model patent, the right holder may be confused about how to choose and the difference between the two.
- Rouse** What is the main purpose of your application for a utility model?
- Interviewee** Mainly to protect products and technological innovation.
- Rouse** Do you think utility model patents are helpful to product innovation protection?
- Interviewee** Utility model patents are used for product innovation protection. Many of our packaging product innovations, especially differentiated packaging, are changed in packaging structure. For high-tech companies in the IT industry, invention patents are the mainstream. Utility model patents are useful for the innovation protection of the packaging industry and fast-moving consumer goods. The utility model protects small inventions. There is a little improvement. Everyone may wish to use the utility model to protect it, which may lead to similar repeated applications, and its protection is relatively low.
- Rouse** How much is the annual utility model patent fee? How much does it account for the total patent fee of your company?
- Interviewee** 20%~40% almost. There are few invention patents, but the cost of invention patents is relatively high.
- Rouse** Will you file the invention patent and utility model as double filing?
- Interviewee** There are very few now, and we applied in this way before. We basically give up utility model patents when the invention is authorized.
- Rouse** Does this way benefit your company?
- Interviewee** Yes. Invention patent authorization is taking time. Before the invention patent authorization, the company has obtained the utility model patent right. In this way, when negotiating with customers, or when promoting products, we will be more steadfast, because we have authorized patents to protect the innovative points of our products.
- Rouse** You are also applying for government subsidies and utility model patents. How much government subsidies are there?
- Interviewee** It seems that the government subsidies for patent applications are getting less, and it seems to be cancelled this year. We used to apply for a lot of government funding, for inventions, utility models and design patents, at most a subsidy of more than CNY 100,000 per year.
- Rouse** How do you think about the examination procedure of utility model?
- Interviewee** I think the examination procedure of utility models is very fast now, usually within 6 to 8 months. The examination of invention patents feels a bit long.
- Rouse** What do you think is the reason for the delay in patent examination? Insufficient examiners or large number of cases, or strengthening the patent examination of utility models?
- Interviewee** I am not sure. An invention patent examination takes two or three years, which is quite long.
- Rouse** Has any utility model ever undergone substantive examination? Retrieve this kind of prior technology.
- Interviewee** There are. feel that the examination of utility models has become more stringent, but it is not as stringent as the examination of invention patents.
- Rouse** What kind of priority review procedure have you used?
- Interviewee** We used it previously. I don't feel that the special examination has been accelerated a lot. We now give priority to the examination of invention patents, and the fastest process is one-year authorization. There seems to be no pre-trial procedure in Beijing.
- Rouse** Have you issued a patent evaluation report? Patent evaluation report for utility model and design patents. What do you think of the quality of the patent evaluation report of the State Intellectual Property Office?

- Interviewee We have done a patent evaluation report. This report is for the client, and the client asks us to provide an evaluation report on the stability of the patent. I feel that the quality of the patent evaluation report of the State Intellectual Property Office is very ordinary.
- Rouse Have you ever searched others' utility model patent evaluation reports?**
- Interviewee We have not done it. However, based on customer requirements, we analyse the stability of third-party patents by ourselves. Customers feel that the products we provide are at risk of infringing the patents of third parties and require us to provide such a patent non-infringement analysis report. When we search for a high-risk patent on our own, we also conduct a similar analysis.
- Rouse Does the review standard for utility models need to be improved? That is to say, do you think it is necessary to strengthen the quality of brand-new patent authorization from the national level? Of course, do you think it is necessary? In other words, do we need to raise the review standards, can utility models be reviewed?**
- Interviewee The state's attitude on utility models and designs is to leave the judgment of infringement analysis to the public. If stakeholders feel that there is a risk of patent infringement, they can search for existing technologies, evaluate the stability of patents, and take legal actions. This also has corresponding benefits for saving administrative resources. The number of patent applications in China is huge. If the search responsibility is attributed to the examiners and the examination of utility models is strengthened, the demand for the number of examiners will suddenly increase, which is very likely to lead to a longer period for granting invention patents. At present, without substantive examination of utility models, the cycle of invention authorization has already taken 2-3 years, and the amount of utility model applications is huge. If utility models are also included in the substantive examination, I cannot imagine how long the patent examination cycle will be. Therefore, it is also a way to return the judgment of the stability of utility models to the public and stakeholders.
- Rouse There are many utilities model or bad faith patent applications, will it increase the legal cost of patent analysis for enterprises?**
- Interviewee It will definitely increase the legal cost of enterprise patent analysis. A large number of abnormal applications are essentially invalid patent applications. Although we subjectively felt that the quality of this patent was not very good, the public had to go through a legal process to invalidate this patent, so that they could feel confident. Nevertheless, I still feel that there is no need to conduct a substantive examination of utility models, because after all, the number of applications is too large.
- Rouse Do you have any suggestions for improving China's utility model system? Legislation, authorization, review authorization, and invalidation of rights protection, malicious patent applications and malicious litigation are all possible.**
- Interviewee I personally think that the patent rights protection system seems to be very complicated, and I have never done it before. I feel that infringement and evidence collection will be troublesome. The others seem to be fine.
- Rouse China's utility model patents rank first in the world. What is your opinion about this?**
- Interviewee Actually, the reputation of China's utility model patents does not seem to be very good. Everyone seems to have this feeling. There are a lot of patents in China, but the quality is poor. If we are filing an intellectual property lawsuit with others, we may find that there are not many high-quality patents that can stand the challenge.

4.3.4 Interview with Head of IP from a Sweden based MNC with business in China

Interviewer	Sweden based patent attorney from Rouse
Interviewee	Head of IP Sweden based MNC with business in Europe and China
Date of Interview	2021-08-13

Location of interview	Stockholm
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Rouse What is your view on the contribution of utility model patents to the innovation capacity in your country?

Interviewee I do not have a view on this.

Rouse In China, the inventiveness requirement to utility model patents is lower than that to an invention patent.

Do you think it reasonable for a utility model patent to be granted with a lower level of requirement on non-obviousness? Any potential negative / positive impact of the difference between a utility model patent and an invention patent?

Interviewee The only reason to for us to use the utility model system is to have an easier examination, with the burden shifted towards the point of enforcement. If the requirements would be the same as for invention patents, the system would have no merits.

However, it is important that once the utility model patent is used in court, the same requirements apply as for an invention patent. This is how it works in Germany – the utility model is registered without substantive examination, but once it is used in court, the same requirements apply as for an invention patent. The scope of protection may be considered to be slightly narrower, and the validity therefore slightly easier to defend, but no major differences.

4.3.5 Interview with IP Counsel from a Sweden based MNC with business in China

Interviewer	Sweden Based Patent Attorneys from Rouse
Interviewee	IP Counsel Sweden based MNC with business in China
Date of Interview	2021-08-13
Location of interview	Stockholm

Rouse Are you keen to apply for more utility model patents in China and why?

Interviewee We have not used the utility model system much, but we are planning to do so, because it appears to be useful.

Rouse Have you ever experienced invalidation against a utility model or litigation based on a utility model patent? What do you think of judicial and administrative ruling on these type of cases from professional perspective?

Interviewee No experience.

Rouse The statutory compensation damages have been increased to 5 million RMB (650,000 EURO) since June 2021.

Do you think the number is reasonable as compared in EU and if it's necessary to increase it to a higher level?

Interviewee It is reasonable.

Rouse Any approaches of commercializing patent asset in EU and your countries? In China, the average financing amount of 2.4 million RMB (approx. 316,000 EURO) can be achieved through pledge or securitization of a single patent, while an average transfer income of 41,000 RMB (approx. 5,400 EURO) can be achieved through transfer of a single patent. Will the financial income from patents in China be attractive to EU IP right holders? Will they be inspired to file more patents including utility model patents in China?

Interviewee Probably not.

4.3.6 Interview with IP Counsel from an EU based MNC with business in China

Interviewer	Sweden Based Patent Attorneys from Rouse
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Interviewee	IP Counsel EU based MNC with business in China
Date of Interview	2021-08-13
Location of interview	Stockholm

Rouse Are you keen to apply for more utility model patents in China and why?

Interviewee It does not generally seem that European companies are very interested in applying for more utility model patents in China.

Rouse Have you ever experienced invalidation against a utility model or litigation based on a utility model patent? What do you think of judicial and administrative ruling on these type of cases from professional perspective?

Interviewee There does not generally seem to be a lot of experience in European companies in disputes around utility model patents.

4.3.7 Interview with Sweden Practitioner

Interviewer	China Based Patent Attorney from Lusheng Law Firm / Rouse Network
Interviewee	Patent Attorney, Sweden IP Firm
Date of Interview	2021-08-12
Location of interview	E-mail

Rouse Are you keen to apply for more utility model patents in China and why?

Interviewee Yes. Utility model is another kind of protection, only available in few European countries (FI and DE). Depending on the type of product, patent and UM may complement each other.

Rouse Have you ever experienced invalidation against a utility model or litigation based on a utility model patent? What do you think of judicial and administrative ruling on these type of cases from professional perspective?

Interviewee No.

Rouse The statutory compensation damages have been increased to 5 million RMB (650,000 EURO) since June 2021.

Do you think the number is reasonable as compared in EU and if it's necessary to increase it to a higher level?

Interviewee Sorry, don't know.

Rouse Any approaches of commercializing patent asset in EU and your countries? In China, the average financing amount of 2.4 million RMB (approx. 316,000 EURO) can be achieved through pledge or securitization of a single patent, while an average transfer income of 41,000 RMB (approx. 5,400 EURO) can be achieved through transfer of a single patent. Will the financial income from patents in China be attractive to EU IP right holders? Will they be inspired to file more patents including utility model patents in China?

Interviewee Sorry I am not sure I understand the question? A patent in Europe may be sold at any price, and a patent license may be for free or at any price.

4.3.8 Interview with Anonymous French IP Advisors

Interviewer	China Based Patent Attorney from Lusheng Law Firm / Rouse Network
Interviewee	Anonymous French IP advisors French IP firms and companies
Date of Interview	2021-08-24
Location of interview	E-mail

This interview was conducted via French IP attaché.

Rouse What is your view on the contribution of utility model patents to the innovation capacity in your country?

Interviewee In France, we have “utility certificates”. In the past, utility certificates have not been very used in France. However, a recent legislative evolution (the PACTE Act) made its protection longer and it more flexible to obtain: extension of the term for utility certificates to 10 years (instead of 6 years previously) and introduction of the possibility to convert them into patent applications right up until the start of the technical preparations for publication (around 16 months from the date of filing). Since that legal amendment, the number of applications has been increasing (+126% in 2019).

Rouse In China, the inventiveness requirement to utility model patents is lower than that to an invention patent. Do you think it reasonable for a utility model patent to be granted with a lower level of requirement on non-obviousness? Any potential negative / positive impact of the difference between a utility model patent and an invention patent?

Interviewee Concerning the utility certificate in France (similar to the utility model patent), there is only a formal check of the application to verify the administrative data provided. No prior art is made for utility certificate (novelty or non-obviousness). Therefore, the utility certificate in France is very much different than a regular patent and provided different solutions for different invention protection. For example, short life invention would benefit greatly of a utility certificate instead of a patent.

4.3.9 Interview with Italian Legal Counsel

Interviewer	China Based Patent Attorney from Lusheng Law Firm / Rouse Network
Interviewee	Italian Legal Counsel Italy based MNC with business in China
Date of Interview	2021-08-24
Location of interview	E-mail

This interview was conducted via Italian IP attaché.

Rouse What is your view on the contribution of utility model patents to the innovation capacity in your country?

Interviewee Utility model patents would encourage companies from other countries to invest in China and provide protection for their IP rights, which contributes to innovation capacity.

Rouse In China, the inventiveness requirement to utility model patents is lower than that to an invention patent. Do you think it reasonable for a utility model patent to be granted with a lower level of requirement on non-obviousness? Any potential negative / positive impact of the difference between a utility model patent and an invention patent?

Interviewee It is reasonable for a utility model patent to be granted with a lower level of requirement on non-obviousness. The examination procedure of a utility model patent is quicker than an invention patent (the examiner took less time in prior art search). It is important to get protection of an idea/product as soon as possible.

4.3.10 Interview with Italian Practitioner

Interviewer	China Based Patent Attorney from Lusheng Law Firm / Rouse Network
Interviewee	Italian Practitioner, Italian IP Firms
Date of Interview	2021-08-24
Location of interview	E-mail

This interview was conducted via Italian IP attaché.

- Rouse** What is your view on the contribution of utility model patents to the innovation capacity in your country?
- Interviewee** ---No reply---
- Rouse** In China, the inventiveness requirement to utility model patents is lower than that to an invention patent. Do you think it reasonable for a utility model patent to be granted with a lower level of requirement on non-obviousness? Any potential negative / positive impact of the difference between a utility model patent and an invention patent?
- Interviewee** According to the prevailing doctrine, the difference between invention and utility model would be limited to the degree of inventive step required.
The utility model would essentially be a "small invention".

4.3.11 Interview with Italian Practitioner

Interviewer	China Based Patent Attorney from Lusheng Law Firm / Rouse Network
Interviewee	Italian Practitioner, Italian IP Firms
Date of Interview	2021-08-30
Location of interview	E-mail

This interview was conducted via Italian IP attaché.

- Rouse** What is your view on the contribution of utility model patents to the innovation capacity in your country?
- Interviewee** Utility models are often referred to as minor, second level patents, but they can be a useful and inexpensive way to protect those innovative technical aspects that would be excluded from patent protection due to lack of sufficient inventive step. In particular, small and medium sized companies can benefit from utility models to protect small innovations, variations or improvements that would otherwise fall into the public domain. Considering that SME play a vital role in the Italian economy, we therefore believe that the contribution of utility model patents is greatly beneficiary for the innovation capacity of Italy.
- Rouse** In China, the inventiveness requirement to utility model patents is lower than that to an invention patent. Do you think it reasonable for a utility model patent to be granted with a lower level of requirement on non-obviousness? Any potential negative / positive impact of the difference between a utility model patent and an invention patent?
- Interviewee** We believe this is in full line with the international regulatory framework on Patents.

4.4 Details of the Amendments to The China Patent Law

Chinese Patent Law (2008)	Chinese Patent Law (2020)
Chapter I General Provisions	Chapter I General Provisions
Article 2: Inventions referred to in this Law shall mean inventions, utility models and designs. An invention shall mean a new technological scheme proposed for a product, a process or the improvement thereof.	Article 2: An invention-creation referred to in this Law shall mean an invention, utility model or design. An invention shall mean a new technical scheme proposed for a product, a process or the improvement thereof.

Chinese Patent Law (2008)	Chinese Patent Law (2020)
<p>A utility model shall mean an applicable and practical new technological scheme proposed for the shape or structure of a product or a combination thereof.</p> <p>A design shall mean a new design proposed for the shape or pattern of a product or a combination thereof and a combination of colors and shape or pattern which is full of aesthetic sense and is suitable for industrial application.</p>	<p>A utility model shall mean an applicable and practical new technical scheme proposed for the shape or structure of a product or a combination thereof.</p> <p>A design shall mean a new design of the whole or partial shape or pattern of a product or a combination thereof as well as a combination of color with shape or pattern, which creates an aesthetic feeling and is fit for industrial application.</p>
<p>Article 6: An employee invention is an invention completed by an employee in the course of performing duties for the employer or completed by substantially using the material and technical conditions of the employer. The employer shall have the rights to apply for patent for an employee invention; upon approval of the application, the employer shall be the patentee.</p> <p>The inventor or designer shall have the rights to apply for patent for a non-employee invention; upon approval of the application, the inventor or designer shall be the patentee.</p> <p>Where the employer and the inventor or designer have entered into a contract for an invention completed using the material and technical conditions of the employer which stipulates the party who has the rights to apply for patent and the ownership of patent rights, such agreement shall prevail.</p>	<p>Article 6: An invention-creation, made by a person in performance of the tasks of his employer, or made by him mainly by using the material and technical means of his employer is a service invention-creation. For a service invention-creation, the right to apply for a patent belongs to the employer. After the application is approved, the employer shall be the patentee. The employer may, in accordance with the law, dispose of its right to apply for a patent and the patent right for a service invention-creation and promote the implementation and application of the relevant invention-creation. The inventor or designer shall have the rights to apply for patent for a non-service invention-creation; upon approval of the application, the inventor or designer shall be the patentee.</p> <p>Where the employer and the inventor or designer have entered into a contract for an invention-creation completed using the material and technical conditions of the employer which stipulates the ownership of the right to apply for patent and of patent right, such agreement shall prevail.</p>
<p>Article 14 For an invention patent of a State-owned enterprise or institution which has significant bearing on national interest or public interest, the relevant administrative authorities of the State Council and the People's Government of the province, autonomous region or municipality directly under the central government may, upon obtaining approval of the State Council, decide to promote application of the invention patent within the approved scope, and permit implementation by designated organization(s), and the implementing organization(s) shall pay royalties to the patentee pursuant to the provisions of the State.</p>	<p>Changed to Article 49</p>
<p>Article 16 The organization which has been granted patent rights shall reward the inventor or designer of an employee invention; upon implementation of the patent for the invention, the inventor or designer shall be given reasonable remuneration</p>	<p>Article 15 The organization which has been granted patent rights shall reward the inventor or designer of a service invention-creation; upon implementation of the patent for the invention-creation, the inventor or designer shall be given</p>

Chinese Patent Law (2008)	Chinese Patent Law (2020)
according to the scope of promoted applications and economic benefits received.	reasonable remuneration according to the scope of promoted applications and economic benefits received. The State encourages organizations to which the patent rights are granted to implement property right incentives to enable the inventors or designers to reasonably share the benefits from innovation by means of equity, options, dividends, etc.
	Article 20 Applications for patent and exercise of patent rights shall comply with the principle of good faith. No one may abuse the patent rights to harm public interest or the legitimate rights and interests of others. Abuse of patent rights to eliminate or restrict competition which constitutes a monopolistic act, shall be punished in accordance with the Anti-monopoly Law of the People's Republic of China.
Article 21 The patent administrative authority and re-examination department and their patent review committee shall handle the relevant patent applications and requests pursuant to the law and in accordance with the principles of objectivity, fairness, accuracy, and timeliness. The patent administrative authority and re-examination department of the State Council shall announce patent information in a complete, accurate and timely manner and publish patent gazettes on a regular basis. Prior to announcement or promulgation of patent applications, the staff, and relevant personnel of the patent administrative authorities of the State Council shall have the obligation to keep the contents of patent applications confidential.	Article 21 The patent administrative department under the State Council shall handle the relevant patent applications and requests pursuant to the law and under the principles of objectivity, fairness, accuracy, and timeliness. The patent administrative department under the State Council shall strengthen development of a public service system for patent information, release the patent information in a complete, accurate and timely manner, provide basic patent data, publish patent gazettes on a regular basis, and promote dissemination and utilization of patent information. Prior to announcement or promulgation of patent applications, the staff, and relevant personnel of the patent administrative department under the State Council shall have the obligation to keep the contents of patent applications confidential.
Chapter II Criteria for Grant of Patent Rights	Chapter II Criteria for Grant of Patent Rights
Article 24 Where an invention for patent application encounters any of the following circumstances within six months before the date of the patent application, the novelty factor shall not be affected: (1) the invention was first shown in an international exhibition organized or recognized by the Chinese Government. (2) the invention was first published at a stipulated academic or technological conference; or (3) the contents of the invention were divulged by others without the consent of the applicant.	Article 24 Where an invention-creation for patent application encounters any of the following circumstances within six months before the filing date, the novelty factor shall not be affected: (1) the invention-creation is first made public for the purpose of public interest during a national emergency or extraordinary state of affairs; (2) the invention-creation was first shown in an international exhibition organized or recognized by the Chinese Government; (3) the invention-creation was first published at a stipulated academic or technological conference; or

Chinese Patent Law (2008)	Chinese Patent Law (2020)
<p>Article 25 Patent rights shall not be granted to the following items:</p> <p>(1) scientific discovery;</p> <p>(2) rules and methods of intellectual activities;</p> <p>(3) diagnosis and treatment methods of illnesses;</p> <p>(4) animal and plant varieties;</p> <p>(5) substances obtained through nuclear transformation method; and</p> <p>(6) a design which has major marking effect on the patterns or colors of graphic print products or a combination of both patterns and colors.</p> <p>Patent rights may be granted pursuant to the provisions of this Law to the manufacturing methods for products listed in item (4) of the preceding paragraph.</p>	<p>(4) the contents of the invention-creation were divulged by others without the consent of the applicant.</p> <p>Article 25 Patent rights shall not be granted to the following items:</p> <p>(1) scientific discovery;</p> <p>(2) rules and methods of intellectual activities;</p> <p>(3) diagnosis and treatment methods of illnesses;</p> <p>(4) animal and plant varieties;</p> <p>(5) methods of nuclear transformation and substances obtained through the methods of nuclear transformation; and</p> <p>(6) a design which has major marking effect on the patterns or colors of graphic print products or a combination of both patterns and colors.</p> <p>Patent rights may be granted pursuant to the provisions of this Law to the manufacturing methods for products listed in Item (4) of the preceding paragraph.</p>
Chapter III Patent Applications	Chapter III Patent Applications
<p>Article 29 Where an applicant who has made a first-time patent application for an invention or a utility model in a foreign country or a first-time patent application for a design in a foreign country submits a patent application for the same subject in China within 12 months from the date of the first-time patent application for the invention or utility model or within six months from the date of the first-time patent application for the design, the applicant may enjoy pre-emption rights in accordance with the agreement entered into between the foreign country and China or the international treaty participated by both the foreign country and China or in accordance with the principle of mutual recognition of pre-emption rights.</p> <p>Where an applicant who has made a first-time patent application for an invention or a utility model in China submits a patent application for the same subject to the patent administrative authorities of the State Council within 12 months from the date of the first-time patent application, the applicant may enjoy pre-emption rights.</p>	<p>Article 29 Where an applicant, within twelve months from the date of first-filed patent application for an invention or utility model in a foreign country or within six months from the date of the first-filed patent application for a design in a foreign country, also files a patent application for the same subject in China, he/it may enjoy priority in accordance with the agreement entered into between the foreign country and China or the international treaty participated by both the foreign country and China or under the principle of mutual recognition of priority. Where an applicant, within twelve months from the date of the first submission in China of an application for a patent for invention or utility model, or within six months from the date of the first submission in China of an application for a patent for design, also files an application for a patent for the same subject with the patent administrative department under the State Council, he/it may enjoy priority.</p>
<p>Article 30 An applicant requesting for pre-emption rights shall submit a written declaration at the time of application and submit the duplicate copy of the patent application documents for the first-time patent application within three months; where the</p>	<p>Article 30 An applicant claiming priority of a patent for invention or utility model shall submit a written declaration at the time of application and submit the duplicate copy of the patent application documents for the first submission within 16 months from the</p>

Chinese Patent Law (2008)	Chinese Patent Law (2020)
<p>written declaration is not submitted or the duplicate copy of the patent application documents is not submitted within the stipulated period, it shall be deemed that the applicant has not requested for pre-emption rights.</p>	<p>date of the first application. An applicant claiming priority of a patent for design shall submit a written declaration at the time of application and submit the duplicate copy of the patent application documents for the first submission within three months.</p> <p>Where an applicant fails to submit a written declaration or fails to submit the duplicate copy of the patent application documents within the stipulated period, he/it shall be deemed to have not claimed the priority.</p>
Chapter IV Examination and Approval of Patent Applications	Chapter IV Examination and Approval of Patent Applications
<p>Article 41 The patent administrative authority and re-examination department shall establish a patent review committee. Where an applicant for patent disagrees with the decision of the patent administrative authorities of the State Council to reject his/her application, he/she may submit a request for review to the patent review committee within three months from the date of receipt of notification. The patent review committee shall make a decision after review and notify the applicant for patent.</p> <p>Where the applicant for patent disagrees with the review decision of the patent review committee, he/she may file a lawsuit with a People's Court within three months from the date of receipt of notification.</p>	<p>Article 41 Where an applicant for patent disagrees with the decision of the patent administrative department under the State Council on rejection of his/its application, he/it may submit a request for reexamination to the patent administrative department under the State Council within three months from the date of receipt of notification. The patent administrative department under the State Council shall make a decision after reexamination and notify the applicant for patent.</p> <p>Where an applicant for patent disagrees with the reexamination decision of the patent administrative department under the State Council, he/it may file a lawsuit with a people's court within three months from the date of receipt of notification.</p>
Chapter V Duration, Termination and Invalidity of Patent Rights	Chapter V Duration, Termination and Invalidity of Patent Rights
<p>Article 42 The validity period of patent rights for an invention shall be 20 years, the validity period of patent rights for a utility model or a design shall be 10 years, the validity period shall commence from the date of application.</p>	<p>Article 42 The duration of patent rights for an invention shall be 20 years, the duration of patent rights for a utility model shall be 10 years and the duration of patent rights for a design shall be 15 years, commencing from the filing date.</p> <p>Where a patent right for invention is granted after three years from the date of request for substantive examination of a patent for invention and after four years from the filing date, the patent administrative department under the State Council shall grant compensation for duration of patent right due to any unreasonable delay in grant of patent rights at the request of the patentee, except for any unreasonable delay caused by the applicant.</p> <p>For the purpose of compensating for the time taken to evaluate and approve a new drug to be put on market, the patent administrative department under the State Council shall grant compensation for</p>

Chinese Patent Law (2008)	Chinese Patent Law (2020)
	duration of patent rights for invention of a new drug approved to be put on market in China upon request of the patentee. The compensation period shall not exceed five years, and the total validity period of patent rights for a new drug approved to be put on market shall not exceed 14 years.
Article 45 With effect from the date of announcement by the patent administrative authority and re-examination department on grant of patent rights, any organization or individual that holds the view that the grant of such patent rights does not comply with the relevant provisions of this Law may request the patent review committee to declare that such patent rights are invalid.	Article 45 With effect from the date of announcement by the patent administrative department under the State Council on grant of patent rights, any organization or individual that holds the view that the grant of such patent rights does not comply with the relevant provisions of this Law may request the patent administrative department under the State Council to declare that such patent rights are invalid.
Article 46 The patent review committee shall promptly examine the request for declaring the patent rights to be invalid and notify the applicant and the patentee of the decision made. The patent administrative authority and re-examination department shall carry out registration and announcement for a decision to declare the patent rights to be invalid. The applicant or the patentee who disagrees with the decision of the patent review committee on declaring the patent rights to be invalid or upholding the patent rights may file a lawsuit with a People's Court within three months from the date of receipt of notification. The People's Court shall notify the counterparty in the procedures for request to declare the patent rights to be invalid to participate in the lawsuit as a third party.	Article 46 The patent administrative department under the State Council shall promptly examine the request for declaring the patent rights to be invalid and notify the applicant and the patentee of the decision made. The patent administrative department under the State Council shall carry out registration and announcement for a decision to declare the patent rights to be invalid. Any party that disagrees with the decision of the patent administrative department under the State Council on declaring the patent rights to be invalid or upholding the patent rights may file a lawsuit with a people's court within three months from the date of receipt of notification. The people's court shall notify the counterparty in the procedures for request to declare the patent rights to be invalid to participate in the lawsuit as a third party.
CHAPTER VI Mandatory Licensing For Patent Implementation	Chapter VI Special Licensing for Exploitation of Patent
	Article 48 The patent administrative department under the State Council and the patent administrative department of a local people's government shall, jointly with the relevant departments at the corresponding level, adopt measures to strengthen public patent services and promote patent exploitation and utilization.
	Article 49 For a patent for invention of a State-owned enterprise or public institution which has significant bearing on national interest or public interest, the relevant competent departments of the State Council and the people's government of the province, autonomous region or municipality directly under the Central Government may, upon

Chinese Patent Law (2008)	Chinese Patent Law (2020)
	obtaining approval of the State Council, decide to promote application of the patent for invention within the approved scope, and permit implementation by designated organization(s), and the implementing organization(s) shall pay royalties to the patentee pursuant to the provisions of the State.
	Article 50 Where a patentee voluntarily declares in writing to the patent administrative department under the State Council that he/it intends to license any organization or individual to implement the patent, and specifies the payment method and standard for royalties, the patent administrative department under the State Council shall make a public announcement and implement an open licensing. Where an open licensing statement for utility model or design patent is made, a patent rights evaluation report shall be provided. Where a patentee withdraws an open licensing statement, the withdrawal shall be made in writing and announced by the patent administrative department under the State Council. Where the open licensing statement is withdrawn by announcement, the validity of the open licensing previously granted shall not be affected.
	Article 51 Any organization or individual wishing to implement a patent for which open licensing is granted shall notify the patentee in writing and obtain the license to implement the patent after payment of royalties in accordance with the announced payment method and standard for royalties. During the period of open licensing, reduction or exemption of payment of annual fee for patent by the patentee shall be granted correspondingly. A patentee implementing open licensing may negotiate with the licensee over royalties and grant a general licensing but shall not grant a sole or exclusive licensing in respect of such patent.
	Article 52 Disputes over implementation of open licensing between the parties concerned shall be resolved by the parties upon negotiation; where the parties concerned are unwilling to negotiate or the negotiation fails, they may request for mediation by the patent administrative department under the State Council, or may also file a lawsuit with a people's court.
Chapter VII Protection of Patent Rights	Chapter VII Protection of Patent Rights

Chinese Patent Law (2008)	Chinese Patent Law (2020)
<p>Article 61 Where a patent infringement dispute involves a patented invention for manufacturing method of a new product, organizations or individuals manufacturing the same product shall show proof to prove that their product manufacturing method differs from the patented method.</p> <p>Where a patent infringement dispute involves a patented utility model or patented design, a People's Court or the authorities for administration of patent matters may require the patentee or stakeholder(s) to provide a patent rights evaluation report made by the patent administrative authorities of the State Council after carrying out searches, analysis and evaluation of the relevant utility model or design as proof for trial or handling of the patent infringement dispute.</p>	<p>Article 66 Where a patent infringement dispute involves a patented invention for a manufacturing method of a new product, organizations or individuals manufacturing the same product shall provide evidence to prove that their product manufacturing method differs from the patented method.</p> <p>Where a patent infringement dispute involves a patented utility model or patented design, a people's court or the patent administrative authority may require the patentee or an interested party to provide a patent rights evaluation report issued by the patent administrative department under the State Council after carrying out searches, analysis and evaluation of the relevant utility model or design as proof for trial or handling of the patent infringement dispute; the patentee, the interested party or the alleged infringer may also voluntarily submit a patent rights evaluation report.</p>
<p>Article 63 In case of counterfeiting patent, the offender shall, in addition to bearing civil liability pursuant to the law, be ordered by the authorities for administration of patent matters to make correction; a public announcement shall be made; illegal income shall be confiscated, and a fine of not more than four times the amount of the illegal income may also be imposed; where there is no illegal income, a fine of not more than RMB 200,000 may be imposed; where the case constitutes a criminal offence, criminal liability shall be pursued in accordance with the law.</p>	<p>Article 68 In case of patent counterfeiting, an offender shall, in addition to bearing civil liability pursuant to the law, be ordered by the patent law enforcement authority to make corrections, a public announcement shall be made; illegal income shall be confiscated and a fine of not more than five times the amount of illegal income may be imposed on it; where there is no illegal income or the amount of illegal income is below RMB 50,000, a fine of not more than RMB 250,000 may be imposed on it; where the case constitutes a criminal offence, criminal liability shall be pursued in accordance with the law.</p>
<p>Article 64 The authorities for administration of patent matters may, according to evidence obtained, question the relevant parties concerned when investigating into the alleged counterfeiting of patent, and investigate the matters relating to the alleged illegal act; conduct on-site inspection at the premises of the parties concerned where the illegal act is alleged to take place; inspect and make copies of the contracts, invoices, accounts books and other relevant materials relating to the alleged illegal act; inspect products relating to the alleged illegal act, and may seal up or seize products which are proved to be counterfeiting patent.</p> <p>When the authorities for administration of patent matters exercise the official powers stipulated in the preceding paragraph pursuant to the law, the parties</p>	<p>Article 69 The patent law enforcement authority shall, based on evidence obtained, have the right to adopt the following measures when investigating and handling alleged patent counterfeiting:</p> <p>(1) questioning the parties concerned and investigating into the circumstances relating to the alleged illegal act;</p> <p>(2) conducting on-site inspection of the premises where the parties concerned are alleged to have committed the illegal act;</p> <p>(3) inspecting and making copies of contracts, invoices, account books and other relevant materials relating to the alleged illegal act;</p> <p>(4) inspecting the products relating to the alleged illegal act; and</p> <p>(5) sealing up or seizing the products proved to be counterfeited patent products.</p>

Chinese Patent Law (2008)	Chinese Patent Law (2020)
concerned shall render assistance and cooperation and shall not refuse or hinder.	When handling a patent infringement dispute at the request of a patentee or an interested party, the patent administrative authority may adopt the measures stipulated in Item (1), Item (2) and Item (4) of the preceding paragraph. When the patent law enforcement authority and the patent administrative authority exercise the official powers stipulated in the two preceding paragraphs pursuant to the law, the parties concerned shall render assistance and cooperation, and shall not refuse or hinder.
	Article 70 The patent administrative department under the State Council may, at the request of a patentee or an interested party, handle patent infringement disputes of nation-wide impact. The patent administrative department of a local people's government may, at the request of a patentee or an interested party, handle patent infringement disputes and conduct joint trial of separate cases of infringement upon the same patent right within its administrative region; in the case of infringement upon the same patent right across different regions, a request may be made to the patent administrative department of a local people's government at a higher level to handle the case.
Article 65 The compensation amount for infringement of patent rights shall be determined according to the actual losses suffered by the holder of patent rights due to the infringement; where it is difficult to determine the actual losses, the compensation amount shall be determined according to the gains derived by the infringer from the infringement. Where it is difficult to determine the losses of the holder of patent rights or the gains derived by the infringer, the compensation amount shall be determined reasonably according to a multiple of the royalties of such patent. The compensation amount shall also include the reasonable expenses incurred by the holder of patent rights in the course of stopping the infringement. Where it is difficult to determine the losses of the holder of patent rights, the gains derived by the infringer and the royalties of the patent, a People's Court may determine a compensation amount ranging from RMB 10,000 to RMB 1million according to the type of patent rights, the nature of infringement and the circumstances, etc.	Article 71 The compensation amount for infringement of patent rights shall be determined according to the actual losses suffered by the patentee due to the infringement or the gains derived by the infringer from the infringement. Where it is difficult to ascertain the losses of the patentee or the gains derived by the infringer, the compensation amount shall be determined reasonably according to a multiple of the royalties of the said patent. For intentional infringement of patent rights, where the case is serious, the compensation amount shall be one to five times the amount determined pursuant to the aforesaid method. Where it is difficult to ascertain the losses of the patentee, the gains derived by the infringer and the royalties of the patent, a people's court may determine a compensation amount ranging from 30,000 yuan to 5 million yuan according to the type of patent rights, as well as the nature and circumstances of the infringement act, etc. The compensation amount shall also include reasonable expenses incurred by the patentee to stop the infringement act.

Chinese Patent Law (2008)	Chinese Patent Law (2020)
	<p>In the determination of compensation amount by a people's court, where the patentee has provided proof to its best effort, and the account books and materials relating to the infringement are held by the infringer, the people's court may order the infringer to provide account books and materials relating to the infringement; if the infringer does not provide or provides false account books and materials, the people's court may determine the compensation amount with reference to the claims of the patentee and the evidence provided.</p>
<p>Article 66 Where the patentee or stakeholder can show proof to prove that others are implementing or will be implementing an infringement of patent rights, and his/her legitimate rights and interests will suffer from irreparable damages if such infringement or impending infringement is not stopped promptly, the patentee or stakeholder may, prior to filing a lawsuit, apply to a People's Court to adopt measures to order that the relevant acts be stopped.</p> <p>An applicant shall provide guarantee when making an application; where a guarantee is not provided, the application shall be rejected.</p> <p>The People's Court shall make a ruling within 48 hours from the time of acceptance of the application; where there is a need for extension of time under special circumstances, an extension of 48 hours may be granted. Where the People's Court has ruled that the relevant acts are ordered to be stopped, such ruling shall be forthwith enforced. A party concerned who disagrees with the ruling may apply for one review only; the ruling shall continue to be enforced during the review period.</p> <p>Where the applicant failed to file a lawsuit within 15 days from the date on which the People's Court adopts measures to order that the relevant acts be stopped, the People's Court shall lift the measures.</p> <p>Where there is an error in the application, the applicant shall compensate the counterparty for the losses incurred due to stopping of the relevant acts.</p>	<p>Article 72 Where any patentee or interested party has evidence to prove that others are committing or will commit an act of infringement of patent rights or hindering the realization of rights, and that his/its legitimate rights and interests will suffer irreparable harm if such act of infringement or impending infringement is not stopped promptly, he/it may, prior to filing a lawsuit, apply to a people's court pursuant to the law for adoption of property preservation measures, an order to undertake certain acts, or a prohibition from undertaking certain acts.</p>
<p>Article 67 For the purpose of stopping a patent infringement act and under the circumstances that evidence may be lost or become irrecoverable in the future, the patentee or stakeholder may, prior to filing a lawsuit, apply to a People's Court for preservation of evidence.</p> <p>The People's Court adopting preservation measures may order the applicant to provide guarantee;</p>	<p>Article 73 For the purpose of curbing a patent infringement act and under the circumstances that evidence may be lost or become irrecoverable in the future, any patentee or interested party may, prior to filing a lawsuit, apply to a people's court pursuant to the law for preservation of evidence.</p>

Chinese Patent Law (2008)	Chinese Patent Law (2020)
<p>where the applicant does not provide guarantee, the application shall be rejected.</p> <p>The People's Court shall make a ruling within 48 hours from the time of acceptance of the application; where the People's Court has ruled that preservation measures be adopted, the ruling shall be forthwith enforced.</p> <p>Where the applicant failed to file a lawsuit within 15 days from the date on which the People's Court adopts preservation measures, the People's Court shall lift the measures.</p>	
<p>Article 68 The limitation of actions for infringement of patent rights shall be two years, commencing from the date on which the patentee or stakeholder becomes or should become aware of the infringement.</p> <p>Where the appropriate royalties were not paid for using an invention during the period from the announcement of a patent application for the invention to the grant of patent rights, the limitation of actions for the patentee's royalties claim shall be two years, commencing from the date on which the patentee becomes or should become aware of use of his/her invention by others, however, where the patentee becomes or should become aware prior to the date of grant of patent rights, the limitation of actions shall commence from the date of grant of patent rights.</p>	<p>Article 74 The limitation of action for infringement of patent rights shall be three years, commencing from the date on which a patentee or interested party becomes or should become aware of the infringing act and the infringer. Where the appropriate royalties are not paid for use of an invention during the period from the announcement of a patent application for the said invention to the grant of patent rights, the limitation of action for a patentee to claim such royalties shall be three years, commencing from the date on which the patentee becomes or should become aware of use of his/its invention by others. However, where the patentee becomes or should become aware prior to the date of grant of patent rights, the limitation of action shall commence from the date of grant of patent rights.</p>
	<p>Article 76 In the process of evaluation and approval of marketing of a drug, where a dispute arises over the patent rights relating to the drug for which registration is applied between a drug marketing authorization applicant and a relevant patentee or interested party, the relevant party may file a lawsuit with a people's court, requesting a ruling on whether the relevant technical solution of the drug for which registration is applied falls within the scope of protection of others' drug patent rights. The drug regulatory department under the State Council may, within the stipulated period, make a decision on whether to suspend the approval of marketing of the drug concerned based on the effective judgment made by the people's court. A drug marketing authorization applicant and a relevant patentee or interested party may also request an administrative ruling from the patent administrative department under the State Council</p>

Chinese Patent Law (2008)	Chinese Patent Law (2020)
	<p>in respect of a dispute over patent rights relating to the drug for which registration is applied.</p> <p>The drug regulatory department under the State Council shall, in concert with the patent administrative department under the State Council, formulate specific transition measures for resolving disputes over patent rights during the stages of examination and approval of drug marketing authorization and application for drug marketing authorization, which shall be effective upon approval by the State Council.</p>
Article 72 Officials who seize an inventor or designer's right to apply for patent for a non-employee invention and other rights and interests stipulated in this Law shall be subject to administrative punishment meted out by their unit or the higher-level authorities.	Deleted