

# Achievements, Problems and Improve Measures of Intellectual Property Protection in China

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## **Abstract:**

Intellectual property protection in China is committed to increasingly perfecting protection legislation for national strategies, continuously strengthening special actions and comprehensive reform of administrative law enforcement, orderly proceeding justice and trial integration reform. However, there are also some problems, such as the lack of legislative quality leads to insufficient legal effectiveness, the scattered administrative law enforcement system leads to ineffective infringement control, and the lack of judicial capacity leads to the existence of different judgments in the same case. It is necessary to attach equal importance to content and procedure to promote scientific legislation of intellectual property rights, improve administrative system and mechanism to strengthen strict enforcement of intellectual property rights, and strengthen professional construction of adjudication to ensure fair administration of intellectual property rights.

**Keywords:** *Intellectual property protection, Legal system, protection system, Scientific and technological innovation, Business environment.*

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## I. INTRODUCTION

Since the beginning of the 21st century, China has made remarkable achievements in the protection of intellectual property, which is regarded as "a unique example in the history of intellectual property development". However, China should also be clearly aware that there are still some deep-seated problems. Therefore, it is necessary to continuously strengthen the protection of intellectual property to provide institutional guarantee for promoting scientific and technological innovation and optimizing the business environment.

## II. ACHIEVEMENTS IN CHINA'S INTELLECTUAL PROPERTY PROTECTION

On the whole, China's position on intellectual property protection is very clear, and China has made tremendous efforts and scored remarkable achievements in this regard. According to the data, "Since 2013, China's intellectual property protection index has been on the rise in the mass, among which, in 2018, it reached 274.3, with a year-on-year growth of 17.8%", indicating the rapid development of intellectual property protection.

## 2.1 Protection Legislation for National Strategies is Being Perfecting Increasingly

On the one hand, a special legislative system has been initially established to ensure that there are laws to follow in intellectual property protection. It has formulated a complete range of legislation on intellectual property protection, and preliminarily established a special legislative system in which both the national and local levels go hand in hand and domestic and international legislation are integrated with each other. In terms of national legislation, under the guidance of the general provisions on intellectual property protection in the Civil Code, with the Patent Law, Trademark Law, Copyright Law and other legal norms as the main force, the implementation rules of the above three special laws and administrative regulations such as the Regulations on the Protection of Layout-Design of Integrated Circuits and the Regulations on the Protection of New Plant Varieties as the auxiliary force, relevant judicial interpretations and departmental regulations as the supplementary, legislative framework for intellectual property protection formed. In terms of local legislation, in light of their own development characteristics, some provinces and cities have explored and formulated comprehensive local laws and regulations on intellectual property protection, such as Regulations of Tianjin on Intellectual Property Protection, Regulations of Shenzhen Special Economic Zone on Intellectual Property Protection, Measures of Liaoning Province on Intellectual Property Protection, etc. Moreover, China has basically acceded to major international intellectual property conventions, placing itself within the framework of international conventions based on the Intellectual Property Agreement and relied on the Paris Convention for the Protection of Industrial Property rights, the Madrid Agreement for the Registration of Trademarks, the Berne Convention for the Protection of Literary and Artistic Works and the World Copyright Convention, providing reference for international legislation to further improve the legislative system of intellectual property protection.

On the other hand, the introduction of a punitive compensation system has formed the legislative orientation of "strict protection". In August 2013, the third revision of the "Trademark Law" in the field of intellectual property protection for the first time introduced the punitive compensation system, according to its regulation, the amount of compensation can be determined at the discretion of "one to three times" the actual losses suffered by the infringed, the illegal profits gained by the infringer or the licensing fee for the use of intellectual property, and the maximum amount of compensation can be raised from 500,000 yuan to 3 million yuan. Furthermore, in the process of revising administrative laws and regulations such as Regulations on the Protection of Computer Software, Regulations on the Protection of New Plant Varieties and Regulations on the Protection of Olympic Symbols, the penalty limits for infringers of intellectual property rights have been correspondingly increased, thus enhancing the deterrent power of relevant legislation. According to relevant data, the number of invention patent applications in China reached 1.401 million in 2019, meeting the target of the 13th Five-Year Plan ahead of schedule. Foreign companies also filed 157,000 invention patents in China, up 6 percent year-on-year [1].

## 2.2 Special Actions and Comprehensive Reform of Administrative Law Enforcement are Being Strengthened Continuously

On the one hand, special actions have been taken to strengthen the high-pressure situation of administrative law enforcement. Intellectual property administrative law enforcement agencies carried out special actions such as "Thunder" (patent law enforcement), "Trace to the source" (trademark law enforcement) and "Sword Net" (network copyright law enforcement) according to the different fields and contents of law enforcement. Special law enforcement was also organized during the Olympic Games, Asian Games, World Expo and other major events to crack down on and investigate intellectual property violations. In 2018 alone, 77,000 patent enforcement cases were filed nationwide, up 15.9 percent year-on-year [2]. In addition, in the fields of trademark rights and copyright, intellectual property administrative law enforcement agencies have investigated and dealt with a large number of counterfeiting and piracy cases through special actions. According to data, nearly 31,200 trademark infringement cases were investigated in 2018, involving a total amount of 546 million yuan, up 49.33% year-on-year [3], a total of 3.77 million pirated copyrighted products of all kinds were collected [4].

On the other hand, comprehensive law enforcement reform has been piloted to improve the efficiency of administrative law enforcement. The Institutional Reform Plan of The State Council (SIPO) made specific arrangements for the reorganization of the State Intellectual Property Office. The restructured SIPO is managed by the State Administration for Market Regulation and is responsible for guiding patent and trademark enforcement, while specific enforcement tasks are undertaken by the comprehensive market regulation enforcement team. This has formed a patent and trademark "two in one" law enforcement mode, helping to crack down on more complex intellectual property violations. What's more, cooperation in patent administrative law enforcement has been carried out in neighboring regions such as "Beijing-Tianjin-Hebei Region", "Yangtze River Economic Belt", "Northeast China" and "Western China", gradually forming the ability to investigate and punish intellectual property violations and infringements across regions, which has steadily improved the efficiency of administrative law enforcement.

## 2.3 Justice and Trial Integration Reform is Being Proceed Orderly

On the one hand, specialized intellectual property judicial institutions have been gradually established. In the process of construction, the degree of specialization of intellectual property judicial institutions has been constantly improved, and the mode of "ordinary court + special court (tribunal)" has been formed. First, the reform of the judicial structure of "three trials in one" has been implemented. In July 2016, the Supreme People's Court issued an opinion requiring people's courts at all levels to change the name of their departments for hearing intellectual property dispute cases to "Intellectual Property Tribunals" and unify "civil, criminal and administrative" cases in the tribunals to avoid jurisdiction conflicts of similar cases. By May 2018, 17 higher people's courts, 113 intermediate people's courts and 129 grassroots people's courts have completed the reform nationwide [5]. Second, special adjudication institutions of intellectual property rights have been set up to promote trans-regional adjudication of cases. Beijing, Guangzhou, Shanghai and other places have set up intellectual property court and carried out comprehensive reforms in the areas of

streamlining institutions, flat management, staffing of judges and judicial responsibility to be responsible for the trial of professional intellectual property first instance civil and administrative dispute cases, which has realized the inter-regional trial of related cases within the province (city). Moreover, special intellectual property courts have been set up in Nanjing, Suzhou and Wuhan handle intellectual property cases of first instance in their respective provinces [6]. The Supreme People's Court has also set up an intellectual property court, which as a permanent representative office, is responsible for hearing professional intellectual property appeal cases nationwide, promoting the formation of an appeal mechanism at the national level.

On the other hand, specialized judicial rules of intellectual property have taken shape. It has explored and tried out specialized judicial trial rules to unify judgment standards, and promoted the integrated reform of intellectual property judicial trials. First, the expert witness system has been introduced. At present, Sichuan, Xinjiang, Zhejiang, Xiamen and other provinces and municipalities have issued relevant rules to ensure that scientific and technological experts can participate in intellectual property judicial trials as expert witnesses. Jiangsu Higher People's Court concluded and formed a research report on the Application and Practice Expert Witness in the Trial of Intellectual Property Dispute Cases, providing experience for the trial of relevant cases. The second is the technical investigator system. China's technical ombudsman system was first used in the Supreme People's Court trials in April 2015. In January 2019, the Supreme People's Court adopted Several Provisions on The Participation of Technical Investigators in Litigation Activities of Intellectual Property Dispute Cases, providing an institutional basis for the application of technical investigators. Third, the case guidance system has been formed. The Provisions on Case Guidance issued by the Supreme People's Court and the detailed rules for its implementation clearly stipulated the reference and application of guiding cases. The Beijing Intellectual Property Court has set up the "Intellectual Property Case Guidance and Research Base", which is specially responsible for compiling and integrating typical cases in the field of intellectual property, promoting the specific practice of the case guidance system in the judicial trial of intellectual property.

### **III. PROBLEMS EXISTING IN INTELLECTUAL PROPERTY PROTECTION IN CHINA**

With the in-depth implementation of China's rule of law construction, the cause of intellectual property protection has ushered in a period of important strategic opportunities, but it also faces a more complex development situation. Meanwhile, some problems to be solved in practice have become increasingly prominent.

#### **3.1 The Lack of Legislative Quality Leads to Insufficient Legal Effectiveness**

On the one hand, the content of intellectual property legislation lacks integrity. Major intellectual property legislation such as the Patent Law, the Trademark Law, and the Copyright Law all have their own legislative goals and objectives, and the adjusted contents are separated from each other, which is out of touch with the entire legislative system to varying degrees. The current "Civil Code" is difficult to guide all intellectual property protection legislation, which hinders the overall exertion of legal effectiveness. In

addition, there are still gaps in the intellectual property protection legislation. It has neither responded to new issues in emerging technologies such as big data, cloud computing, artificial intelligence, and genetic engineering in a timely manner, nor has it comprehensively protected China's advantageous intellectual property such as folklore and traditional knowledge.

On the other hand, intellectual property legislative procedures lack scientificity. First, the legislative planning of intellectual property rights is relatively vague, and specific legislative planning standards have not yet been formulated, resulting in a insufficient focus on research and demonstration of legislative projects in this field. Second, public participation in intellectual property protection legislation is deficient. Although intellectual property legislation also adopts various form, including hearings, symposiums and demonstration meetings to absorb the opinions and suggestions of the public, but due to its strong professionalism, it is difficult for the general public to really participate in it. Third, the evaluation method of intellectual property rights after legislation is lagging behind. Post-legislative evaluation is still mainly limited to traditional methods such as questionnaires, visits and hearings. Paper and language are always used to collect feedback and confirm the evaluation results, which cannot meet the requirements of accurate post-legislative evaluation of intellectual property protection in the context of the new technological revolution. It is difficult to comprehensively and objectively judge the real effect of the implementation of relevant legislation, which is not conducive to promoting the improvement of the quality of legislation and affects the full play of the actual effect of the law.

### 3.2 The Fragmented Administrative Law Enforcement System Results in Ineffective Containment of Infringements

On the one hand, intellectual property administrative enforcement agencies are too scattered. At the national level, most of the various intellectual property administrative law enforcement agencies that undertake the functions of intellectual property administrative law enforcement are not affiliated with each other, and there is a situation of "decentralized juxtaposition and overlapping functions". Although the new round of institutional reform of the State Council has integrated the administrative law enforcement agencies of patent rights and trademark rights: the State Intellectual Property Office is responsible for macro-direction of administrative law enforcement; the comprehensive law enforcement team for market supervision is responsible for the specific implementation. However, such a "two-in-one" model is far from meeting the needs of intellectual property enforcement. The highly fragmented intellectual property administrative law enforcement agencies has led to the waste of law enforcement resources, the reduction of law enforcement scope and the conflict of law enforcement powers, which have seriously weakened the law enforcement efforts. At the local level, intellectual property administrative enforcement agencies don't only have the problem of being dispersed, but also have more obvious differences in nature, level and affiliation.

On the other hand, the cooperation mechanism of intellectual property administrative law enforcement does not play an effective role. In order to carry out centralized law enforcement and jointly crack down on cross-regional intellectual property violations, China has established three collaborative mechanisms for

intellectual property administrative law enforcement, namely the "Inter-ministerial Joint Conference on Promoting the Use of Genuine Software" led by the National Copyright Administration, and "National Leading Group for Combating Intellectual Property Infringement and Manufacturing and Selling Fake and Shoddy Good" led by the State Administration of Supervision and Administration, and the "Inter-ministerial Joint Conference on the Implementation of the State Council's Intellectual Property Strategy" led by the State Intellectual Property Office. Three national-level intellectual property administrative enforcement cooperation mechanisms coexist, but the level of the leading unit is only the ministerial or vice-ministerial level, and the overall planning is lacking; member units overlap each other, and decision-making support is not enough; the coordination mechanism is not well coordinated, and the law enforcement efficiency is not high. This aggravates the degree of dispersion of administrative law enforcement, easily breeds blank areas of law enforcement, and affects the effective investigation and punishment of illegal and tortious acts. Therefore, the illegal infringement of intellectual property rights intertwined in practice is more serious. For example, since April 2012, Sina.com alone had as many as 15,000 links infringing the copyright of Southern Weekend, with a time span of 6 years [7].

### 3.3 Insufficient Judicial Adjudication Capacity Leads to the Existence of Different Judgments in the Same Case

First of all, the number and quality of specialized judicial institutions cannot meet the needs of case trial. In recent years, the number of various intellectual property disputes has continued to increase, which has intensified the pressure on judicial organs. Taking 2018 as an example, courts at all levels across the country received 335,000 new intellectual property disputes, a year-on-year increase of 41.19% [8]. Among them, the number of newly received cases in major provinces (cities) such as Beijing, Shanghai, Jiangsu, Zhejiang and Guangdong still maintained a relatively high level, accounting for 65.39% of the national court proportion, while the number of newly received cases in the central and western regions also showed a rapid increase. For example, Gansu, Guizhou, Qinghai and other provinces increased by 290%, 157.22% and 155% respectively [9]. Moreover, the limited radiation area of specialized intellectual property adjudication institutions has led to the problem of spatial dispersion, and it is difficult to meet the practical needs of specialized judicial adjudication in areas with active innovation [10]. Most regions have not yet established specialized intellectual property adjudication institutions. Therefore, most cases are still handled by general judicial bodies. There is a big gap with specialized intellectual property courts (tribunals) in terms of trial level and efficiency. It is difficult to concentrate on hearing complex intellectual property disputes, which affects the judicial justice of intellectual property in some regions.

Another, the professionalism of the trial team has not yet adapted to the complexity of the case trial. With the development of new technologies and the innovation of business models, the number of various intellectual property disputes has continued to increase, which has intensified the pressure on judicial organs. According to the data, the case closure rate of the Supreme People's Court Intellectual Property Tribunal established in 2019 was only 73.7% [11]. As far as localities are concerned, among the first-instance cases concluded by the Shanghai Intellectual Property Court, more complex patent, computer software, technical secrets and other cases account for as high as 95%; the intellectual property disputes

heard by the Beijing No. 1 Intermediate People's Court involved complex medical and chemical issues such as "Markush claims". In addition, the relevant cases heard by the people's courts in various places also covered cutting-edge and difficult technical issues, including 4G standards, video aggregation platforms, genetic technology and genetic data and sound trademarks. The facts of these cases are particularly complex and the social concern of them is high, which brings great challenges to intellectual property judges [12]. However, the vast majority of judges only have a background of legal knowledge and lack knowledge reserves in natural sciences, especially emerging technologies and other highly specialized fields, which affect the induction of disputes and the judgment of specific cases. As a result, the adjudication results of intellectual property dispute cases often lack professionalism.

Finally, the trial mode has not effectively played the role of unified judicial adjudication. Intellectual property protection legislation is very general, and the rapid development of science and technology, culture and economy and trade makes this attribute more prominent. Therefore, it is bound to be difficult for judicial institutions and personnel in different regions to form a unified understanding of relevant legislation. This makes the trial method based solely on legal provisions can not ensure "same case and same sentence", and there is an urgent need to innovate the trial method to unify the judicial judgment. Opinions on Several Issues Concerning Strengthening Reform and Innovation in the Field of Intellectual Property Judgment points out that it is necessary to implement the intellectual property case guidance system, improve the judicial trial methods, realize the unification of judgment standards and enhance the timeliness of judicial relief. The guiding system of intellectual property cases refers to the judicial system in which the relevant courts issue guiding cases on intellectual property disputes from time to time in accordance with legal procedures, so that the judges can refer to them in the case trial. It is the top priority and a powerful starting point to improve the way of intellectual property trial at present. However, the intellectual property case guidance system was only piloted by the Beijing Intellectual Property Court in 2015. At present, it has not been unanimously recognized by relevant institutions, and even consensus has not been reached between judicial institutions. As of December 2018, only 21 intellectual property guiding cases had been released nationwide, and the quality was generally average. Therefore, it is difficult to convince the judges, hinders the effective play of the guiding role, and can not meet the practical needs of unified judgment standards.

#### **IV. PERFECT COUNTERMEASURES FOR INTELLECTUAL PROPERTY PROTECTION IN CHINA**

Based on the achievements of China's intellectual property protection, analyzing its main problems, and putting forward corresponding perfect countermeasures from the three dimensions of legislation, law enforcement and justice, China's intellectual property protection system can therefore be improved comprehension.

#### 4.1 Adhere to Paying Equal Attention to Content and Procedures to Promote Scientific Intellectual Property Legislation

On the one hand, it is necessary to formulate basic legal norms for intellectual property protection. At present, there have been two upsurges in formulating the basic law of intellectual property protection in the world, such as France, Italy, Portugal, Spain and other developed countries; Brazil, Sri Lanka, the Philippines, Vietnam and other developing countries have completed the formulation of the basic law of intellectual property protection through different forms. Based on the provisions of the Civil Code on intellectual property rights, China should take the protection of intellectual property rights as the main line and formulate a general outline that oversees all intellectual property protection legislation laws and regulations on the basis of ensuring the integrity and coordination of the existing legislative methods. It can be named "General Principles of Intellectual Property Law". When conditions are ripe, a complete intellectual property code should be built on the basis of the General Provisions of the Intellectual Property Law and be focused on other separate laws on intellectual property protection, which is also the ultimate goal of optimizing the legislative system. In addition, legislation on intellectual property protection in important areas should be strengthened, and relevant issues in new fields and new formats such as big data, cloud computing, artificial intelligence, Internet and e-commerce should be responded to as soon as possible. There is great need to combine local characteristics and incorporate intellectual property rights that China has an advantage, but cannot reasonably protect internationally into legislation as soon as possible. Among them, folklore, traditional Chinese medicine and genetic resources are all key areas that urgently need legislation. In view of the fact that these intellectual property protection legislations have relatively large theoretical disputes, lack of practical experience, and involve many competent authorities. Therefore, it is indispensable to conduct scientific demonstrations on the basis of sufficient research, and formulate independent intellectual property protection laws one by one to comprehensively cover all traditional advantageous fields.

On the other hand, it is requisite to improve the legislative mechanism and ensure scientific procedures. The first is to improve the working mechanism of legislation. Legislative plans are formed based on social needs. It is necessary to comprehensively consider the legislative projects proposed by relevant administrative agencies, demonstrate in detail their necessity, legitimacy, and feasibility, and avoid duplication of legislation, decentralized legislation and passion legislation because of "multiple administrations". For the legislation on intellectual property protection that has great differences, but urgently needs to be formulated, third-party institutions such as institutions of higher learning and scientific research institutes should be introduced to participate in the demonstration, grasp the crux of the problem, and propose solutions in a timely manner. The second is to build a public participation mechanism. It is essential to promote comprehensive and effective communication between the legislature and the public on intellectual property protection, and to understand the legislative demands of different social groups in various aspects. The negotiation results should be fully fed back and reflected in the legislation, so as to avoid the contradictions and conflicts that may be caused by the legislation of intellectual property protection, and realize the organic integration of its functions of balance, adjustment and regulation. It is also requisite to clarify the rules of participation of the general public. In particular, it

is important to ensure the full participation of major intellectual property creators and application entities such as enterprises, colleges and universities, and scientific research institutes, as well as consumers and representatives of the general public, so as to objectively reflect the opinions and suggestions of various parties. The third is to create a post-legislation evaluation mechanism. The traditional evaluation methods such as questionnaires, visits and hearings are upgraded and transformed through big data technology, and effective feedback from online users in the implementation of intellectual property protection legislation is collected, so as to provide rich information resources for evaluation. At the same time, artificial intelligence technology is used to clarify the applicable boundaries of intellectual property protection legislation in practice. And by comparing the data before and after the legislation and analyzing typical cases, the implementation effects and blank areas of the legislation are deduced. Based on this, scientific predictions are made for the future trend of intellectual property protection legislation.

#### 4.2 Improve the Administrative System and Mechanism to Strengthen the Strict Enforcement of Intellectual Property

On the one hand, it is compulsory to reform the administrative system and enhance comprehensive law enforcement capabilities. A "veritable" State Intellectual Property Office should be established to be responsible for the administrative enforcement of intellectual property rights including patent rights, trademark rights, copyrights, integrated circuit layout design rights, and geographical indication rights. At the same time, the relevant intellectual property administrative enforcement powers of the Ministry of Agriculture and Rural Affairs and the State Forestry and Grassland Administration should also be reasonably retained. This can change the highly decentralized administrative law enforcement system, solve the drawbacks of multiple law enforcement, and then reduce the cost of running the system and enhance the execution of comprehensive law enforcement. It has great importance to promote the reform of local intellectual property administrative law enforcement agencies. Pilot areas such as national-level new areas, free trade pilot areas, independent innovation demonstration areas, and comprehensive reform pilot areas can be used to carry out pilot projects and explore the reform path of intellectual property administrative law enforcement agencies with local characteristics. For example, in 2015, Shanghai Pudong New District has established the first intellectual property office in China that integrates comprehensive enforcement of patent rights, trademark rights and copyrights; Xiamen Area of the Fujian Free Trade Zone has also set up an intellectual property office in the same "three-in-one" model within its management committee. In addition, if the local intellectual property offices at all levels do not have independent institutions, they should be separated from the scientific and technological authorities and become independent intellectual property administrative law enforcement agencies; the original public institution should be transformed into an administrative unit in time, and the administrative level ought to be the same as that of the market supervision institution and the scientific and technological authority. In other words, provincial intellectual property offices should be positioned as administrative units at the departmental level, and intellectual property offices below the prefecture level should be positioned as administrative units at the local bureau level. This can enhance the authority of local intellectual property administrative law enforcement agencies, facilitate communication and coordination with relevant departments in the process of law enforcement, and help improve the comprehensive law enforcement

capability and intensity of intellectual property rights.

On the other hand, it is essential to improve the cooperation mechanism and enhance the intensity of administrative law enforcement. A comprehensive coordination mechanism for intellectual property administrative enforcement by the State Council should be established. The three types of intellectual property administrative law enforcement cooperation mechanisms led by the State Intellectual Property Office, the State Administration for Market Regulation and the National Copyright Administration are integrated into the intellectual property administrative law enforcement cooperation mechanism led by the State Council. The drawbacks of fragmentation, ambiguity and overlapping functions shall be eliminated, and the authority of coordination shall be enhanced at a high level. At the same time, an information sharing platform for intellectual property administrative law enforcement collaboration can be built to incorporate all relevant institutions' information to realize data resource sharing, so as to enhance the efficiency of intellectual property administrative law enforcement collaboration. On this basis, mobile equipment and APP software ought to be further developed so that law enforcement officers can timely obtain data on the platform, such as case-related information, case-handling progress and case-closing materials, according to actual needs. It is worth noting that information should be reasonably classified according to the degree of confidentiality (such as sensitive information, confidential information and publicly available information, etc.), and application permissions should be set accordingly to avoid improper use of relevant information. Meanwhile, the platform is also supposed to be connected with the e-commerce platform, so as to take advantage of the layout advantages of the e-commerce platform to widely obtain the links to the products suspected of intellectual property infringement, the identity of the sellers and the information on complaints and reports. And with the help of the technical means of the e-commerce platform, the infringing goods and their manufacturers and sellers can be accurately tracked. In practice, individual intellectual property administrative law enforcement agencies have begun to cooperate with Alibaba. With the help of the company's big data technology, a large number of intellectual property infringement gangs have been unearthed, and the corresponding "offline distribution map" has been drawn, forming a new collaborative model of "online traceability and offline attack", the relevant experience is worth promoting to the whole country [13].

#### 4.3 Strengthen the Professionalization of Trials to Ensure Fair Justice for Intellectual Property

First of all, it is necessary to optimize the layout of judicial institutions and improve the specialized judicial system. The establishment and promotion of China's intellectual property courts should adopt a method of gradual and step-by-step exploration. Therefore, the special courts established in Beijing, Shanghai and Guangzhou are only the starting point for the layout of judicial institutions, and the special judicial system still needs to be further developed. On the basis of the existing specialized courts, new intellectual property courts shall be established in due course to continuously improve intellectual property adjudication capacity and judicial level [14]. It is useful to select a mature and widely radiated specialized court from the existing intellectual property courts, and start a new round of intellectual property court constructed on this basis, thereby expanding the radiation scope of specialized trials. In areas where

intellectual property courts are difficult to radiate, if necessary, intellectual property courts can continue to be added, and a specialized judicial system paralleled by intellectual property courts and courts can be constructed, which is also in line with the international development trend of intellectual property adjudication institutions. What's more, in the process of laying out the intellectual property court, it is indispensable to gradually complete its trial model, expand the "two-in-one" model of the intellectual property court's trial of civil and administrative cases into a "three-in-one" model of civil, administrative and criminal cases, break the artificial boundaries between various types of cases, promote the organic integration of specialized judicial systems, and ensure fairness and justice in trial results.

Another, it is fundamental to strengthen the construction of the trial team and hoist the judicial professional capacity. The newly appointed intellectual property adjudicators should not only have a solid theoretical foundation of law, but also have educational background in science, engineering, agriculture, medicine and other disciplines, and have been engaged in professional work in relevant fields for a sufficient number of years. Among them, public officials who undertake legal work in the Party and government organs can be assessed and transferred, and expert legal workers can be directly appointed from institutions of higher learning, scientific research institutions and lawyers' groups, in accordance with the "Measures for the Open Selection of Legislative Workers, Judges and Prosecutors from Lawyers and Legal Experts". The addition of these high-level specialized talents to the trial team will help enrich the structure of the trial staff, build an expert trial team and ultimately make a qualitative leap in the professional level of the trial staff. At the same time, it is essential to focus on the key areas of current technology, culture and economic and trade development, carry out job theoretical training in a targeted manner, let the judges with a single legal discipline background increase the knowledge reserve of relevant professions as soon as possible, and improve the ability to find out technical facts, so as to meet the trial needs of intellectual property dispute cases. Among the specialized intellectual property courts (tribunal), plans should be made to select senior judges to study and exchange, and hold discussions on typical and difficult cases regularly so as to share advanced trial experience, solve high-frequency technical problems, and promote the overall professional level of intellectual property judges.

Finally, optimize the intellectual property case guidance system. The operation mechanism of the intellectual property case guidance system needs to be further optimized to improve the quality and quantity of the supply of guiding cases, ensure the high consistency of the applicable standards of the law, so as to improve the professional ability of the trial and maintain the fairness and justice of intellectual property justice. Specifically, in terms of case generation, in view of the high professionalism and authority of the intellectual property court in this field, it should become a qualified generation institution of intellectual property guiding cases. However, the guiding effect of corresponding cases should be limited to the jurisdiction of each intellectual property court and should not be expanded. This has formed a "double insurance" situation in the generation of intellectual property guiding cases, which can make up for the deficiency of cases generated by the Supreme People's Court and help to respond to the needs of intellectual property guiding cases in the development of science and technology, culture and economy and trade in a timely manner. In terms of case screening, the Supreme People's Court and all intellectual property courts should provide classic cases with effective judgments, organize relevant experts to carry

out legitimacy demonstration and write case descriptions, and officially publish them after soliciting opinions and publicity from the public. This can effectively prevent the risk of improper case screening and ensure the judicial credibility of intellectual property guiding cases. In terms of case substitution, when the current intellectual property guiding cases lag behind the social development, are disconnected from the judicial practice, and even conflict with the legislation, the substitution procedure must be started, that is, the judicial organ that generated the case issues a new guiding case to replace it, or directly declares its abolition, so as to realize the good beginning and good end of intellectual property guiding cases and form a virtuous circle. Optimizing the operation mechanism of the new trial mode of intellectual property from the three aspects of generation, screening and substitution is the key to promoting the deep-seated reform of the trial mode. It has important practical significance to enhance the fairness and authority of intellectual property judicial trial and ensure the fair administration of intellectual property justice.

## V. CONCLUSION

To sum up, under the background of China's active construction of the rule of law, China should summarize the achievements of intellectual property protection in order to firm the protection position, and analyze the problems of intellectual property protection to clarify the development direction. Ultimately, the process of intellectual property protection in China will be promoted from three dimensions: legislation, law enforcement, and justice, so as to provide legal protection for promoting technological innovation and optimizing the business environment.

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