# Analysis and Suggestions for Reform of Existing Problems in China's Utility Model System

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## I. Introduction

Utility model applications at the CNIPA are skyrocketing. In 2017 a new high was reached at 1,687,593.<sup>1</sup> According to the 2017 WIPO statistics the country with the second highest number of utility model applications was Germany. The utility model applications in Germany amounted to 13, 301.<sup>2</sup> That translates into more than 125 Chinese utility model applications for every German utility model application. Even if one accounts for the substantially larger population, China's lead over Germany is gigantic, i.e. almost 13 applications per 10,000 inhabitants in China versus less than 2 applications per 10,000 inhabitants in Germany. China's share of the 2017 total number of utility model applications in the world <sup>3</sup> is almost 96%. In 2018 a new record was set at 2,072,311<sup>4</sup>, exceeding the two million mark.

Dealing with this large number of utility models is a challenge for companies doing business in China. Indeed, the impact of the utility model practice on the IP environment companies face in China is hard to overestimate.

Below we probe into the popularity of utility models, discuss practical issues, and pinpoint problems. We feel that there is an urgent need for reform of the utility model system and propose two amendments to the patent law that would curb excesses of the utility model practice but also pave the way for future alignment of the utility model law with the course of shifting technology foci and new emerging technologies.

## II. Quality issues

Over recent years, Chinese utility models have drawn a lot of criticism for low quality IP rights. However, any preemptive dismissal of this category of IP rights misses that there are also many utility models that meet high quality standards comparable to invention patents<sup>5</sup>. It should also not go unnoticed that in 2013 a *prima facie* novelty examination for utility models was introduced to raise quality.

Yet the criticism is not unfounded. There are two respects in which a large number of utility models appear to be of low quality, a formal and a material one.

In our IP practice, we often have to deal with utility models where the disclosure is pretty scanty. Often utility models are only the bare bones of IP rights. It would be mistaken to believe that such utility models are not meant to be enforceable, as the utility model infringement case "*Tan Xining v. Xuanda Silica Gel GmbH*", included in the 2017 Chinese Supreme Court case collection<sup>6</sup>. The case was first heard by Zhenjiang Intermediate Court and in second instance by Jiangsu High Court. In second instance the infringement claims were dismissed on the basis of a prior art defense.<sup>7</sup> The Supreme Court took up the case in retrial to clarify a legal issue, namely that a method feature in a utility model claim does not have a limiting effect when the subject matter of the claim is compared with the state of the art used in a prior art defense.

It is telling to have a look at the utility model in suit <sup>8</sup>, because it epitomizes a quality problem with many Chinese utility models. The utility model comprises one claim, one page of description, and one figure. The drafting of the one claim is perfunctory (e.g. using a method-type claim limitation to define utility model protection, which was apparently the reason why the Supreme Court retried the case) and the one figure is little elaborated.

The brevity of such utility models mostly goes hand in hand with the above mentioned second respect which lets many utility models appear to be inferior quality, i.e. the material aspect. Many Chinese utility models are directed to minor innovations which would not qualify for invention patent protection. Typically, it is also these utility models protecting minor innovations that are low quality with respect to drafting and disclosure.

It would be a misconception to believe that utility models with rudimentary disclosure protecting minor innovations have little clout. Their relevance is largely due to a legal reason, i.e. the inventive step privilege discussed in the next section. We feel that this inventive step privilege goes to the heart of the utility model boom in China. We also feel that this privilege, maybe together and sometimes in combination with subsidies from local Chinese governments for utility model applications, is the main culprit for the low quality utility models.

#### III. Inventive step

Chinese utility models benefit from a lower inventive step. According to Article 22.3 of the China's Patent Law, China requires patents to possess substantive distinguishing features and to constitute a marked improvement over the state of the art, whereas utility models need only to have distinguishing features and just constitute an improvement.

To learn about the practical consequences of these different requirements, we may resort to the CNIPA Guidelines for Patent Examination (hereinafter referred to the Guidelines). According to these guidelines, the practice of the invalidation procedure differs for invention patents and utility models.

Whether a combination of state of the art sources (mostly documents) for invalidation is admissible depends on the type of IP rights (invention patents or utility models) according to Part IV-6.4 of the Guidelines 2010. The invalidation of an invention patent may be based on state of the art of the same technical field and neighboring technical fields. In contrast, only state of the art from the same techni-

cal field as the utility model is accepted unless there is an explicit indication that makes a person skilled in the art resort to a state of the art of a neighboring field. In addition, the number of state of the art sources is more limited, i.e., 1, 2 or more for invention patents and 1-2 for utility models, as long as a claim does not contain an aggregation of limitations which are not functionally related.

In particular, the limitation of technical field is crucial. In the earlier days the technical field was often gauged via the IPC class.<sup>9</sup> The Supreme Court reviewed this practice in the "dynamometer" decision.10 The Supreme Court went for a more flexible approach than just relying on the IPC class. The technical field the utility model belongs to is to be determined based on the contents defined by the claims of the utility model and normally in accordance with the title of the utility model, as well as the function and the purpose of its embodiments. The IPC class remains to be a reference for determining the technical field. Importantly, state of the art to be used is not only to have the same function but also to be identical in effect (unless there is an explicit indication in the state of the art that prompts a person skilled in the art to resort to neighboring state of the art; a situation which apparently is very rare<sup>11</sup>). In the above-mentioned "dynamometer" case, the utility model in dispute was directed to a dynamometer, i.e. an apparatus to measure grip force. The state of the art document which was not admitted by the Supreme Court dealt with a hand-held apparatus employing the same technical principle as the dynamometer but applied to the measurement of a weight. However, grip force and weight measurement were considered as different effects. The state of the art document was consequently not admitted.

The limitation of the state in the art through the Guidelines and, generally, the different inventive step criteria lend Chinese utility models a high stability. This stability is further strengthened by other practical reasons. The lower requirement for inventive step opens the utility model protection to minor innovations not protectable by invention patents. It is only natural that a large number of Chinese utility models are directed to such minor innovations. The state of the art that can be effectively used against such utility models covering minor innovations is more limited than for invention patents. As such innovation would not be protectable in the major filing countries outside China<sup>12</sup>, patent literature searches render less results. Moreover, academic literature is hardly usable because the description of minor innovations would not bestow academic merits. In addition, prior public use as the state of the art is hampered by the high threshold for evidence authenticity. Typically, such state of the art meets only a good chance to be accepted if related information was notarized before the relevant date of the utility model to be invalidated. These limitations of the usability of prior art against Chinese utility models are therefore bound to strengthen the stability of an IP right that is only examined *prima facie*.

It is not surprising that Chinese utility models are often the best state of the art source to fight Chinese utility models. This trend indicates that there is a decoupling from the international IP game, i.e. Chinese utility models practice is a singular feature of the Chinese IP system.

## IV. The German path

Before we go any further, let's briefly compare the utility model systems of China and Germany and shed light on some diverging developments.

Many of the main features of the Chinese and German utility models systems are practically alike. For example, the maximum duration of utility models is the same (10 years). In practice, utility models are not subjected to indepth examination of the substantive requirements "novelty" and "inventive step". As of 2013, China goes beyond mere registration by taking into account obvious novelty defects of utility models, but which does not translate into something qualitatively different. It is not only the above legal characteristics but also the practical invalidation procedures that show striking similarities. In both countries invalidation is handled by the patent office (CNIPA, DPMA) and both countries set up or designated a special court for dealing with invalidation appeals (Beijing IP Court, Germany Federal Patent Court).

However, there are some differences. In Germany, a pending invention patent application may form a basis for branch-offing one or more utility models maintaining the filing date or, if applicable, priority date of the invention patent application, which is not possibly in China. Different from Germany, China bans invention patents and utility models from double patenting. Germany's utility models enjoy a 6-month grace period while China employs grace periods only under specific situations. Finally, the state of the art for German utility models is limited to documents and public prior use in Germany, whereas China does not have any such limitations since the third amendment to the patent law came into effect.

The below table compares main features of the German and the Chinese utility model systems.

Utility Models	Germany	China
Codification	Utility Model Law (separate from the Patent Law)	Patent Law
Excluded subject - mat- ter	Methods, plant or animal varieties	Methods, materials composition, and soft- ware (Article 2.3 re- quirement: inventions for form/structure im- provement)
Maximum du- ration	10 years (extension after 3, 6 and 8 years)	10 years (annual ex- tension)
Substantive examination	No	As of 2013: <i>prima fa- cie</i> novelty examina- tion; no substantive examination on novel- ty and inventive step
Invalidation	Patent Office (GPTO)	Patent Office (CNIPA)
Appeal courts	BPatG / BGH (BGH: only appeal on a point of law)	Beijing IP Court/ Bei- jing High Court (IP Tri- bunal of the Supreme Court as of 2019)
Inventive step standard	Same as invention patent (BGH decision "Demon- strationsschrank")	Lower
Grace period	6 months	No
State of the art	All documents, prior pub- lic use in Germany	As of 1 October, 2009: all types of state of the art worldwide, howev- er, practically limited to the same technical field
Double pat- enting as in- vention pat- ents and utili- ty models	Yes	No
Branch-off	Yes	No
Number of applications in 2017	13,301	1,687,593

The many resemblances of the two systems do not surprise us given the influence of the German system on the Chinese one in the early days. But there are three developments where the divergence between Germany and China is striking.

A first development is the filing number. While Chinese utility model filings are soaring, the number in Germany is declining. The last ten years (2007- 2017) saw a rise in China by more than 800% whereas in Germany 26% less utility models were filed.<sup>13</sup>

The declining utility model filing number in Germany is even more conspicuous if a second development is taken into account.

The subject-matter eligible for utility model protection in Germany used to correspond to Article 2.3 of the China's Patent Law and was called "Raumformerfordernis" in German. The German law abandoned this requirement in 1990. Case law further specified the subject-matter amenable to utility model protection. A landmark decision "Signalfolge" <sup>14</sup> was issued in 2004 by the German Federal Supreme Court, in which the Court decided that a utility model does not necessarily have to protect an invariable physical entity and a claim directed to a signal sequence does not constitute a method (that is excluded from utility model protection).<sup>15</sup>

Currently, the same standard for software protection applies to German invention patents and utility models with the sole exception that utility models may not include method claims.<sup>16</sup> It should be noted that this extension of utility model protection goes even beyond what is acceptable for Chinese invention patents, because not only claims directed to a computer program storage medium are possible but also claims directed to a computer program or, as in the above decision, a signal sequence.

The third development relates to the inventive step. In China the requirement was lowered: The Guidelines from 2001 still allowed for making use of documents from neighboring fields to assess the inventive step of a utility model. The present practice was introduced by the Guidelines 2006. In the same year a landmark decision "Demonstrationsschrank" was issued by the German Federal Supreme Court. In the decision, the court decided that the same criterion is to be applied to invention patents and utility models. Despite the fact that the wordings in the respective laws are different (German patent law requires an inventive action (erfinderische Tätigkeit) whereas German utility model law requires an inventive step (erfinderischer Schritt)), which would suggest different thresholds, the assessment is not to differ for invention patents and utility models.<sup>17</sup> In current practice, the assessment of inventive action (for patent application) and inventive step (for utility model) are the same. German utility models are not privileged with respect to inventive step.

## V. Utility models and competition

From a management point of view, an IP right should be inexpensive, stable, and potentially well enforceable. All three points hold for Chinese utility models and explain the magic of their surge. Firstly, official fees are moderate for utility models. Secondly, the stability is not lower than for invention patents as a study by the law firm China Patent Agent (H.K.) Ltd. shows<sup>18</sup>. According to the study, utility models are even tentatively more difficult to invalidate via inventive step attacks. This is remarkable because utility model claims typically are not narrowed during registration procedure.<sup>19</sup> Finally, Chinese utility models are as readily enforced as invention patents. In contrast, German case law requires a higher level of care for utility models when warning letters are sent to putative infringers.

IP rights should constitute an adequate reward for innovative achievements. The above factors of enforceability, stability, and low costs lead to an enormous clout of utility models. It appears that for many utility models the utility model is too high a compensation for the corresponding innovative contribution. The "dynamometer" decision for instance is one example where a utility model was upheld for an obvious transfer of an existing technology to a new application. The state of the art document not taken into account in this case discloses a method for measuring forces by utilizing a flexible element with resistor pads where an applied force bends the elements and leads to changes of the pads' resistance. According to the rationale behind the "dynamometer" decision, a mere application of this technology to a new area for measuring a new type of force would result in a stable utility model. The same can be said, in particular, for those cross-cutting technologies, e.g. communication, controlling, monitoring etc., a transfer of which to new application areas appears to require no real inventive step, but would give rise to stable utility models.

What is more (and worse), due to the difficulty in finding state of the art for utility models with minor innovations, many utility models with no innovative merits at all are likely to withstand invalidation. Since such utility models can hardly be invalidated because the minor deviation from the prior art was never considered worth publishing in a way that it can be used in an invalidation proceeding, companies have started to look for other defensive measures and e.g ramped up notarization.

Ultimately, this situation creates an imbalance between innovative merit and the rights a utility model grants to its owner. A side effect is that the incentive to file utility models is too strong, leading to a flood of mostly low quality IP rights.

There is an imbalance also in comparison with invention patents. Invention patents are strictly examined by the CNIPA. Typically, both the cost to obtain an invention patent and the requisite innovative merit are on average substantially higher than those for a utility model. If two competitors confront each other where one of them filed only invention patents and the other only utility models, the second one tends to be in a stronger position, because utility models typically have broader claims (not narrowed in examination procedures) and benefit from stability comparable to invention patents. The competitor with the utility model portfolio can be in a stronger position even if his innovative power is less. In consequence, one can neutralize innovation deficits with utility models.

## VI. The economic aspect

For compliance and risk mitigation reasons, leading technology companies monitor and conduct clearances for third party IP rights. This effort is considerable. Besides the technical and legal analysis which typically involves at least one technical and one legal expert, search efforts for state of the art are often necessary. For utility models such as the one Tan Xining used against Xuanda Silica Gel GmbH (see section II) the cost for the clearance is likely to be higher than the drafting and filing costs if a legal assessment is required. That is, many utility models would already pay off by inflicting higher clearance costs at your competitor than the cost you bear for generating the utility model.<sup>20</sup>

Frivolous and even abusive filings of utility models can do damage to the competitor without effective sanction for misdemeanor (the law only provides that the damage caused in bad faith on the part of the patentee shall be compensated,<sup>21</sup> while typically the proof for misdemeanor is doomed to fail in view of high evidence requirements).

At first glance, utility models would provide many Chinese companies with a competitive edge, because they allow neutralizing higher quality patent portfolios of a competing technology leader.

In reality, major damage is caused to the Chinese innovation environment. To start with, the option to neutralize high quality patent portfolios with low quality utility model portfolios de - stimulates innovation. As long as Chinese companies are in a position to absorb foreign technology while offsetting the IP risk via low quality utility model portfolios, they have little incentive in investing into innovation themselves. The present utility model practice detracts from the motivation to invest into innovation and to protect this innovation by higher quality IP rights, i.e. innovation patents. A "copy and neutralize" strategy, i.e. a strategy where technology is copied and utility models are filed to ward off IP risks from the original technology owner, is in short term too attractive but would turn out to be unsustainable in long term.

Utility models lend themselves to fencing and building IP barriers. At a registration rate of about 80% more than 1.6 million utility models will come into force in 2019. This sheer number of utility models will inevitably lead to enormous spending in clearances and to great IP risks. Hence, the present utility models system detracts from China's attractiveness for foreign R&D investment. The difficulties in managing IP risks for utility models put China at a disadvantage in the competition for development and production sites with other countries.

Many companies are increasingly unable to shoulder the costs of applying the same care in dealing with utility models as for invention patents and non-Chinese IP rights. As a consequence, higher risk is accepted and IP problems are shifted to a later stage when utility models are asserted. This leads to more litigation, less predictability, and lower standards of due care. The introduction of international standards of high level IP work, an integral part of innovation, into Chinese companies appears to be quite difficult in such an IP environment.

China has taken the lead in the number of litigations, too.<sup>22</sup> The case set out in the beginning (*Tan Xining v. Xuanda Silica Gel GmbH*) shows that a low quality utility model can occupy an intermediate court, a high court and the Supreme Court. Valuable resources are bound by such lawsuits while the societal benefit is low. Litigation largely among Chinese companies is spawned by the great number of utility models and consumes substantial court and attorney resources. One wonders whether this allocation of valuable resources is economical. Better quality employment of court and attorney resources appears to be more appropriate.

A new industry of notarization is coming into existence to fend off utility models risks. Companies notarize products and sales information to forestall the risk of utility model applications, in particular bad faith applications. The societal benefit of these expenditures is almost null.

Finally, there is a lot of criticism from outside that the Chinese utility models distort the IP system and bend it to the benefit of China. While the achievements of China in setting up an IP system are admirable and the criticism is often unfounded<sup>23</sup>, the utility model system should not run counter to principles of fair competition and the spirit of IP. Technology leaders are penalized which is not in the interest of China and compromises the goal to become a leading innovative country. This does even hurt more if familiarity with utility models is low due to the absence of this IP right in one's own country (importantly, the USA). We have entered a situation where such complaints should be taken seriously in view of the creation of a fair business environment.

An amendment to the Chinese utility model system is even more needed because utility models could play an important role in a digitalized ecosystem. Digital ecosystems are very complex, and the participants are highly interconnected. On the other hand, technology turnaround time is rather short. Therefore, participants in the ecosystem are interested in an easy way to document their innovative contributions. Utility model or other petty patent systems could play such a role if they were opened for software inventions. They could become a very attractive means to document one's technological contribution and form a legal basis for sharing, (cross-)licensing or otherwise dealing with intellectual contributions. Of course, there is a danger that the above described negative effects of the Chinese utility model system would even be accelerated. Accordingly, an amendment is even more urgently needed.

## VII. Suggested amendments

In the present situation the negative effects outweigh the benefits no matter what perspective one takes. There is an urgent need to prevent the Chinese IP environment from degrading into an IP cesspool with a myriad of junk IP rights.

It is evident that any amendment should lead to more quality, adequate compensation for innovation and protection from frivolous IP attacks. Ideally, amendments would interfere with the legal basis and practice as little as possible and retain what is good. We feel that by just two amendments the situation could be substantially improved.

Hence, we propose the following two amendments.

a) The inventive step requirement for utility models should be raised to the same standard as for invention patents. This implies the amendment of Article 22.3 to "Inventiveness means that, as compared with the existing technology, the invention or utility model has prominent and substantive features and represents a notable progress." It also means amending the Guidelines Part IV-6.4 where the more rigorous standard of state of the art combinations for utility models as opposed to invention patents has to be abandoned.

b) The presentation of a patent validity report should be made a mandatory part of a lawsuit. That is, regarding the utility model in Article 61.2 of the China's Patent Law should be changed to "If a dispute over patent infringement involves a utility model patent, the people's court or the administration department for patent - related work shall require the patentee or the interested parties to present a patent right assessment report prepared by the patent administration department under the State Council through searching, analyzing, and assessing the relevant utility model, which shall serve as evidence for trying or handling the patent infringement dispute."

Proposed Amendment a) is self-explanatory. The raise of the bar on the inventive step requirement is apodictic to make a turn towards quality IP rights.

In contrast, the second amendment needs some comments, even though a similar amendment was proposed in the third draft for the fourth Patent Law amendment.<sup>24</sup>

We feel that it is important not to privilege utility models over invention patents by allowing for enforcement of utility models without a CNIPA assessment report on patentability.

The assessment report is not necessarily filed along with the complaint (although this is favorable). Expediency will not always allow for filing the assessment report that early (e.g. in legal proceedings initiated after interim measures such as provided by Articles 66 and 67 of the China's Patent Law). But the assessment report should be a mandatory requirement for the admissibility of the lawsuit. It is imperative that the assessment report is ordered as soon as possible and available well before the final court hearing. The lawsuit should be dismissed if the plaintiff does not comply with this requirement.

It should be noted that the apparent main function of the assessment report, i.e. to provide a basis for the decision whether to stay the proceedings, is by far not the only function. In particular such a report would help small- and medium - sized enterprises (typically Chinese companies) which are less IP savvy or have limited search resources with launching an invalidity request. Possibly even more importantly, the assessment report may provide material for a state of the art defense, which especially for low quality utility models directed to state of the art is the most efficient route to put an end to the proceedings. Hence, defaulting on the obligation of providing this assessment report is to result not in just a stay of the proceedings but in a dismissal as e.g. in the guidance case *Li Zhanquan v. Zhou Jinshan*<sup>26</sup>.

#### **VIII.** Prospects

It is instructive to have a look at changes in the number of patent and utility model applications filed in Japan (see the figure below). As can be seen, utility model filings topped patent filings until about 1980 when the utility models went into a sharp decline. Today the Japanese utility model filing number is only about half the number in Germany and amounts only to about one tenth of the (invention) patent filings.



It appears that this development correlates with Japan's s technology development where after a phase of technology catch-up with a high number of utility model filings the technologically mature Japan almost phased them out. This suggests that utility models may be more important in a phase of closing technology gaps while at a certain technology level the importance dwindles. But the decline was also partly due to Japan making utility models less attractive.<sup>26</sup> It is also conspicuous that in the most important technologically mature countries with a utility model system, such as Germany, Japan, and Korea, the utility model application number is both considerably lower than the patent application number and has declined in recent years.

We feel that this development path of Japan would also provide a healthy model for the future of Chinese utility models. Invention patents should be the staple for protection of technical innovations while utility models provide a complement. Even after the proposed amendments, utility models retain two crucial advantages: speed of grant and lower cost.

We finish with another observation setting out a future for utility models in China. At the time when utility models were introduced as IP rights, software was not<sup>27</sup> or little<sup>28</sup> relevant. Since then software has dwarfed mechanics and electronics with respect to innovative dynamism. Core topics of China's technology focus programs are software-oriented, e.g. Al, IoT, automated manufacturing, and FinTech. Software inventions in these fields are not amenable to utility model protection and hence forego the above mentioned advantages of utility models, i.e., speed of grant and lower cost. In our opinion, in particular early protection would be desirable in fast developing innovation environments.

However, Article 2.3 of the China's Patent Law stipulates that "utility model refers to a new technical solution proposed for a product's form, structure, or the combination thereof, that is suitable for utility". This form and structure requirement appears to not properly account for modern technological developments<sup>29</sup> and results into a skewed distribution of utility models according to technical area.<sup>30</sup>

A logical step would be to open the utility model system to software and materials composition inventions. It can hardly be disputed that such an extension of subject-matter eligible for utility model is prohibitive unless the flood of new applications is curbed. The CNIPA reported 2,072,311 utility model applications for 2018. This is an increase of more than 20% with respect to the previous year's figure. The 2018 utility model application number in China is likely to be higher than the total number of all patent and utility model applications in the rest of the world outside China.<sup>31</sup> An extension of the subject-matter for utility models requires as a precondition a reform of the utility model system, which is achieved by the two amendments we propose.

In consequence, the proposed amendments would also pave the way for further modernization of the Chinese utility model system.

# IX. Urgency

Apparently the fourth amendment to the China's Patent Law is imminent.<sup>32</sup> There will be about 10 years' time difference between the third and the fourth amendment once it has come into effect. The reform of the utility model system is very urgent and needs to be included in the amendment which is under way. Only a reformed utility model system will allow China to reach high quality standards of IP work regarding the fair use, compliant third party IPR handling, and adequateness of compensation for innovation that is characteristic of mature IP systems. It is inconceivable how the Chinese IP landscape would look like if utility model application numbers continue to rise in the next ten years as they have since the third patent law amendment.

The Chinese IP strategy of 2008 envisages that 'by 2020, China will become a country with a comparatively high level in terms of the creation, utilization, protection and administration of IP rights<sup>33</sup>. China has made major strides in improving its IP system. But on a qualitative level, we believe, this goal still requires to take proper steps for reining in the excesses of the utility model practice as soon as possible.

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<sup>1</sup> China Patent Agent (H.K.) Ltd. (2018). Statistics on IPR protection in China 2017. *China Patents & Trademarks*, *2*, 92.

<sup>2</sup> World Intellectual Property Indicators -2018: Utility model Applications at the top 10 offices. According to DPMA annual report 2017: 13, 299 applications.

<sup>3</sup> World Intellectual Property Indicators-2018: Total utility model applications. Retrieved from https://www.wipo.int/edocs/pubdocs/en/ wipo\_pub\_941\_2018.pdf. Last visited on 8 March, 2019.

<sup>4</sup> Retrieved from www.sipo.gov.cn/tjxx/index.htm. Last visited on 8 March, 2019.

<sup>5</sup> In China, invention patents, utility models and designs are subsumed under the term "patent". Outside China the term "patent" is mostly used instead of "invention patent", e.g. in Germany. In this article we follow the Chinese notation.

<sup>6</sup> The Supreme People's Court. *Guidance on Trials of IP Cases* (10th volume) (p.110). China Legal Publishing House.

<sup>7</sup> Yuhe Wu (2007). Prior art defence against patent infringement allegation in China. *China Patents & Trademarks, 3*, 52. For the German reader a discussion of this defense is provided by O. Pfaffenzeller, X. Pfaffenzeller, and B. Weibel. *Die Einrede des freien Standes der Technik in China.* GRUR Int. 2014, p. 760.

<sup>8</sup> Chinese Utility Model No. ZL 201020117558.5

<sup>9</sup> O. Pfaffenzeller, M. Deng, and X. Pfaffenzeller, Die Herausforderung durch chinesische Gebrauchsmuster, Mitt. 2014, p. 101. See also: Tang Yi and Liu Lei (2012). *Discussion on Inventive Step Requirement for Utility Models Published in Article 22 of the China's Patent Law* — *Theory and Practice of Inventive Step* (p.636). Intellectual Property Publishing House.

<sup>10</sup> The Supreme People's Court. *Guidance on Trials of IP Cases* (5th volume) (p.223). China Legal Publishing House. Jia Jingdong (2018). Reflections on criteria for assessing inventive step for utility model. *China Patents & Trademarks, 1,* 73. Note that Jia Jingdong believes the present practice of establishing a lower inventive step for utility models is not to be justified.

<sup>11</sup> Wang Wensheng. Inventive step criteria for utility model patents — Theory and practice. *Article 22 of the China's Patent Law* — *Theory and Practice of Inventive Step* (p.360).

<sup>12</sup> Arguably with the exception of Japan. But filing numbers are very low so that the JP UM state of the art is narrowly circumscribed — see section VIII.

<sup>13</sup> Even steeper decline for JP and KR utility model applications. See supra note 2.

<sup>14</sup> BGH, 17.02.2004 - X ZB 9/03.

<sup>15</sup> Official headnote (amtlicher Leitsatz):

Aus dem Fehlen eines beständigen körperlichen Substrats bei einer als Gebrauchsmuster angemeldeten Erfindung folgt nicht notwendig, dass die Erfindung rechtlich als Verfahren im Sinn des § 2 Nr. 3 GebrMG einzuordnen ist. Einen Schutzausschluss für einen solchen Gegenstand sehen die §§ 1, 2 GebrMG seit In-Kraft-Treten des Produktpirateriegesetzes nicht vor.

Einem auf eine Signalfolge, die ein Programm zum Ablauf auf einem Rechner darstellt, gerichteten Schutzanspruch steht der Schutzauss-

chluss des § 2 Nr. 3 GebrMG nicht entgegen

Anspr. 11 Datenträger mit darauf gespeicherten Daten oder für die Übersendung über das Internet geeignete, Daten repräsentierende Signalfolge

<sup>16</sup> Bühring, Braitmayer, and Schmid. Gebrauchsmustergesetz, 8. edition 2011, §1 Rn 91. Carl Heymanns Verlag.

<sup>17</sup> BGH, 20.6.2006 - X ZB 27/05: Supreme Court Decision "Demonstrationsschrank". Headnote:

"Just like the precondition of inventive action for granting a patent in Patent Law, the criterion of inventive step in the law for utility models according to § 1 GebrMG is not a quantitative one, but a qualitative one. The judgment on the inventive step is, similar to the judgment of the inventive action, the result of an assessment".

<sup>18</sup> Meng Pu (2014). A comparative study of stability of invention patent and utility model patent. *China Patents & Trademarks*, *1*, 38.

<sup>19</sup> Except for a *prima facie* novelty defects remedied by claim amendments.

<sup>20</sup> According to our experience, the shorter the description is the more difficult the legal assessment of the utility model becomes.

<sup>21</sup> Articles 47.2 and 47.3 of the China's Patent Law.

<sup>22</sup> 16,010 new civil court patent litigations in 2017 according to the Status of Judicial Protection of Intellectual Property Rights in China (2017). In comparison, only 4,522 patent cases were filed in US district courts. Retrieved from http://www.managingip.com/Article/ 3781440/Data-2017-US-patent-casesplaintiff-defendant-law-firm-anddistrict-rankings.html. Last visited on 8 March, 2019.

<sup>23</sup> Court statistics show no bias against foreign parties. A recent study that comes to the same conclusion is: Love, Helmers, and Eberhardt, Patent Litigation in China — Protecting Rights or the Local Economy, Mitt. 2017, 163.

<sup>24</sup> "If a dispute over patent infringement involves a utility model patent or a design patent, unless the dispute shall be tried or handled immediately, the people's court or the patent administration department shall require the patentee or the interested parties to present a patent right assessment report prepared by the patent administration department under the State Council through searching, analyzing, and assessing the relevant utility model or design, which shall serve as evidence for trying or handling the patent infringement dispute."

<sup>25</sup> *Comments on China's IP Guiding Cases* (9th volume) (p.156). China Legal Publishing House.

<sup>26</sup> The decline is certainly partly due to the reduction of term of Japanese utility models to six years in 1994. Before 1994, the term of a Japanese utility model was "10 years from the date of examined publication but not in excess of 15 years from the filing date". In 1994, this was reduced to six years from the application date. On 1 April, 2005, however, the Japanese utility model law was revised, increasing the term of utility models to 10 years from the application date. This had hardly an effect on the filing number.

<sup>27</sup> Reference can be made to the situations in Germany.

<sup>28</sup> Reference can be made to the situations in China.

<sup>29</sup> It is instructive to read: Friedrich - Karl Beier, Gebrauchsmusterreform auf halben Wege: Die überholte Raumform, GRUR 1986, p. 1, to learn about the discussion in Germany that led to the abolishment of the "Raumform" requirement in 1990.

<sup>30</sup> B. Wolter and O. Pfaffenzeller (2016). A look at the abundance of Chinese utility models. *World Patent Information*, *45*, 21.

<sup>31</sup> 1,860,913 in 2017, see supra note 3.

<sup>32</sup> On 4 January, 2019, the Draft Patent Law for comments was published.

<sup>33</sup> Outline of the National Intellectual Property Strategy, II. Guiding Principles and Strategic Goals, 2. Strategic Goals. Retrieved from http: //www.gov.cn/english/2008 - 06/21/content\_1023471.htm. Last visited on 8 March, 2019.