

How to Protect the Patent Right in a Standardization Context – Property Rule or Liability Rule?*

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ABSTRACT: High transaction costs are involved in the SEPs licensing process, and the FRAND policy essentially represents a collaborative effort by SSO members to reduce such costs. In order to facilitate the SEPs licensing process, the law must operate in a way that promotes the effective implementation of the FRAND cooperation mechanism. To achieve this goal, appropriate remedies for SEPs matter significantly. According to the transaction cost theory, SEPs should be protected by the property rule rather than the liability rule, and the parties' subjective fault demonstrated during the negotiation process is not the deciding factor for the issuance of an injunction, but merely a factor to be considered when determining the amount of damages. The *eBay* ruling provided factors to identify the appropriate remedies to reduce transaction costs for patent licensing, which do not consider the subjective fault of both parties. The problem with the application of the *eBay* rule in FRAND-related cases currently by U.S. courts is that it links subjective fault to the issuance of an injunction inappropriately. The EU addressed the issue under the competition law perspective; however, it improperly expanded the scope of antitrust law regulating FRAND-related issues, rigidly linking the issuance of an injunction to the party's subjective fault. The court's definition of subjective fault is constantly changing, which means that the number of FRAND-related disputes will continue to increase. The scope of antitrust law applicable to FRAND disputes should be limited; in this case, the German courts established an appropriate standard in the *Orange Book Standards*.

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Introduction

To assure fair and open access to standards, Standard Setting Organizations (SSOs) require participating firms to disclose standard-essential patents (SEPs) and to commit, as a condition of participating in a standard-setting process, either to royalty-free SEP licensing or, more commonly, their licensing on fair, reasonable and non-discriminatory (FRAND) terms.¹ However, many SSO Intellectual property rights (IPR) policies currently leave open the answer to a number of complex questions,² the most salient being what should happen when negotiations over FRAND royalties break down. In particular, whether and when it might be justifiable for the owner of a SEP, in spite of its voluntary commitment to license its technology on FRAND terms to all interested parties, to seek an injunction against an entity utilizing the standard and, so, presumed to be infringing that SEP after negotiations have faltered.³

The explosion of disputes and litigations worldwide have raised a plethora of contract, patent, and antitrust issues in relation to the infringement of both non-SEPs and SEPs, which have included the question of whether a SEP holder should be able to enforce its exclusive rights by bringing an injunction claim in court. National courts around the world have to undertake this task. Different courts applied different rules to address this issue. Differences in legal traditions and the significant economic interests of SEPs in each country have led to conflicts among different jurisdictions. Forum shopping in SEPs litigation is common, which ultimately

¹ Alison Jones, "Standard-Essential Patents: FRAND Commitments, Injunctions, and the Smartphone Wars", *European Competition Journal* 10, no. 1 (2014), 5.

² These questions might include how valid patents can be identified and invalid assertions quickly weeded out; how infringement can be tested in relation to a portfolio of SEPs; whether and how FRAND commitments can be enforced; and exactly how a FRAND royalty can be assessed.

³ Only IEEE's patent policy involves this issue. According to article 6.2 of the IEEE-SA Standards Board Bylaws, the submitter of an accepted LOA who has committed to make available a licence for one or more Essential Patent Claims agrees that it shall not seek to enforce a Prohibitive Order based on such Essential Patent Claim(s) in a jurisdiction unless the implementer fails to participate in, or to comply with the outcome of, an adjudication, including an affirming first-level appellate review.

leads to fierce FRAND war,⁴ with SEPs holders and SEPs implementers seeking judgment in the court that is favourable for them.⁵ The purpose of litigation is no longer about settling disputes, it is simply about expediting licensing negotiation. In practice, depending on the circumstances, the parties will either choose to continue with the proceedings or make a settlement.

Leaving the issue of the availability of injunctions to the national court's *ex post facto* is like opening Pandora's box, which defeats the very purpose of technical standards and FRAND licences. Clarifying this question *ex-ante* is critical to calm the FRAND war. In this case, understanding the meaning of FRAND as the core intellectual property policy of SSOs is crucial. Does it mean SEP rights should definitely be protected under liability rules? Or are property rules still applicable in some cases? Have the factors enumerated in the *eBay* ruling, or the procedural guidelines required by the *Huawei v. ZTE* framework made by the Court of Justice of the European Union (CJEU), provided a reasonable solution? What is the relationship between unfaithful behaviours demonstrated in the negotiation process and injunction or exclusionary relief? If the negotiation procedure developed in *Huawei v. ZTE* framework is not followed, will it definitely lead to an injunction?

To develop an efficient protection rule for SEP rights, this article addresses these questions. In Part I, I explain the distinct remedies for SEPs in different courts and the distinct positions of different interested parties leading to forum shopping worldwide, and also why clarifying the injunction rule is critical for responding to opportunistic behaviours. Part II explores the real meaning of FRAND, based on Calabresi & Melamed's theory. Part III re-examines the *eBay* ruling deeply, to evaluate whether it could be used as a tool to determine whether to grant an injunction for SEPs. Does applying the *eBay* ruling definitely lead to damages relief? Part IV addresses the way the *Huawei v. ZTE* framework works to identify the bad-faith behaviours of standard implementers and explores the merits and pitfalls of this framework.

⁴ Jones, "Standard-Essential Patents", 10.

⁵ For example, IDC seeks injunctive relief for Xiaomi's infringement in the Court of Munich, Germany, and, at the same time, Xiaomi seeks for anti-injunction from China court.

1. Why are appropriate remedies for SEPs critical to mitigate the FRAND war?

a. Different remedies for SEPs in different courts lead to forum shopping worldwide

A critical issue related to FRAND commitment is the extent to which it affects the availability of injunctive relief. Should injunctive relief be generally available, or should it be restricted, given the commitment to grant a FRAND licence for SEPs? This is an issue that remains highly controversial at both the theoretical and practical levels. Courts and administrative authorities around the world are searching for the appropriate balancing point between an absolute right to an injunction and an absolute denial of the injunction.

Different courts consider the granting of an injunction from different perspectives. U.S. courts rely on the factors enumerated in *eBay*'s ruling to determine whether to issue an injunction under the patent law framework, which makes them hesitant to allow the use of injunctions by holders of SEPs subject to FRAND injunctions, while under Japanese and German law, historically, injunctions must be granted unless other considerations – such as violation of other laws and regulations, or public interest concerns – demand otherwise.⁶ For instance, German courts usually address this issue from the perspective of antitrust law. Striking the appropriate balance can be more difficult in countries where injunctive relief is in principle available as of right.

It can be seen that the issuance of an injunction and contract law, patent law, and antitrust law are intertwined, leading to this issue becoming more and more complex. In this context, SEPs strategic litigation is quite serious, and injunctive relief is the core issue of the game between SEP holders and implementers. Strategic litigation is a typical performance of FRAND war,⁷ which takes the form of global forum shopping. Parties usually disagree on the FRAND terms and winning a more favourable royalty rate in negotiations is the underlying reason for speculative litigation. Injunction and royalty thus are often the subject of strategic litigation claims, the

⁶ Yuzuki Nagakoshi and Katsuya Tamai, "Japan without FRANDs: Recent Developments on Injunctions and FRAND-Encumbered Patents in Japan", *AIPLA Quarterly Journal* 44, no. 2 (2016), 248.

⁷ Professor Lowenfeld once called forum shopping the "favourite indoor sport of international lawyers".

former brought by the licensor and the latter by the licensee. For example, in *Microsoft v. Motorola*, when Motorola and Microsoft failed to agree on the licensing terms of SEPs, Microsoft sued Motorola in U.S. federal court, alleging Motorola breached the FRAND commitment.⁸ The U.S. court was asked to determine the licensing terms. Several months after the U.S. litigation, Motorola filed a proceeding in Germany, alleging Microsoft's infringement of the European patents. Since German law did not recognize the implementer's third-party rights to enforce the FRAND commitment, the German court did not allow Microsoft to rely on such a commitment as a valid defence and granted an injunction against Microsoft's sale of its products in Germany. Microsoft then applied to the federal district court to enjoin Motorola from enforcing the German judgment. The Ninth Circuit found the German patent infringement suit to be inconsistent with the FRAND commitment. This reflects the conflict resulting from the inconsistency of SEPs infringement remedies in different courts.

Represented by the UK court's practice of determining global licensing on FRAND terms in *Unwired Planet v. Huawei*,⁹ jurisdictions are competing in a tournament of sorts to identify the best legal framework for resolving FRAND licensing disputes. Countries have developed different approaches to antisuit injunctions (ASIs) based on their own domestic rules and interests, and courts in multiple jurisdictions are competing to grant ASIs and anti-anti-suit-injunctions (AASIs),¹⁰ leading to fragmented decisions and significant costs for global standardizations.

As the crucial Intellectual policy of SSOs, the FRAND licence is a legal tool designed to balance the interests of SEPs owners and standard implementers.¹¹ However, the proliferated conflicting ASIs and AASIs concerning FRAND-encumbered SEPs threaten to defeat the very purpose of technical standards and FRAND licences. Resources spent on ASI-related litigation unfortunately create the very inefficiency that the FRAND

⁸ Microsoft Corp., 871 F. Supp.2d, at 1103-04.

⁹ Roya Ghafele, "Global Licensing on FRAND Terms in Light of *Unwired Planet v. Huawei*", *UCLA Journal of Law and Technology* 24, no. 2 (2020), 20.

¹⁰ There are some typical cases, such as *Microsoft v. Motorola*; *TCL v. Ericsson*, *Apple v. Qualcomm*, *Huawei v. Samsung*; *Huawei v. Conversant*; *Oppo v. Sharp*; *Xiaomi v. Inter Digital*; *Samsung v. Ericsson*.

¹¹ Landgericht München I [LG] [regional court Munich I] Feb. 25, 2021, 7 O 14276/20 (Ger.), [http://www.arnold-ruess.com/wp-content/uploads.2021/03/InterDigital vs Xiaomi AASI25 Feb2021EN.pdf](http://www.arnold-ruess.com/wp-content/uploads.2021/03/InterDigital%20vs%20Xiaomi%20AASI25%20Feb2021EN.pdf); see also Jyh-An Lee, "Implementing the FRAND Standard in China", *Vanderbilt Journal of Entertainment & Technology Law* 19, no. 1 (Fall 2016): 37-86.

licence seeks to prevent, and the legal costs will eventually be borne by the consumers. Clarifying how a FRAND commitment affects the availability of injunctive relief for SEPs at the theoretical level is the first step to tackle the challenge of strategic litigations.

b. Divergent views on the remedy for SEPs from market participants

Many countries' administrative branches have called for comments on their recent policy statement or plan for SEPs. For instance, On December 6, 2021, the U.S. Department of Justice (DOJ), the U.S. Patent and Trademark Office (USPTO), and the U.S. National Standards Board (NIST) jointly issued a draft policy Statement on Remedies for Infringement of Standard-essential Patents Pursuant to FRAND Commitments and invited comments from the public. The draft policy statement tends to take the position that where a potential licensee is willing to license and can compensate a SEP holder for past infringement and future use of SEPs subject to a voluntary FRAND commitment, seeking injunctive relief instead of good-faith negotiation is inconsistent with the goals of the FRAND commitment. Consistent with judicially articulated considerations, monetary remedies will usually be adequate to fully compensate a SEP holder for infringement.¹²

From the public comments about the draft policy statement,¹³ we can see the fierce debate of different interest stakeholders over this issue. Generally, patent holders, represented by Qualcomm, Ericsson, NOKIA, SISVEL, and so on, argued that this draft policy statement deprives patent holders of the right to exclusive relief, a right expressly granted by U.S. patent law and international treaties (TRIPS), which will change the bargaining power of the patent holder and the potential standard implementer. Unlike the patent holder who needs to rely on court review and authorization to obtain an injunction, the potential implementer can unilaterally infringe without any cost, which will lead to a continuous delay in the negotiation process of the licence fee- patent hold-out - forcing the patent owner to deal a licence fee lower than the FRAND royalty.¹⁴ If the available remedies for infringement of SEPs do not result in the timely conclusion of FRAND licences, the result will reduce incentives for investment in the mobile standards.

¹² <https://www.justice.gov/atr/page/file/1228016/download>.

¹³ <https://www.regulations.gov/docket/ATR-2021-0001/comments>.

¹⁴ The comments could be seen on this website: <https://www.regulations.gov/docket/ATR-2021-0001/comments>.

However, the standard implementers, represented by Apple and Amazon, believed that the FRAND commitment restricts the access to the right to injunctive relief of SEPs owners. The SEP holder's right to injunctive relief can only be issued under very few conditions, such as the licensee's clear expression of the unwillingness to follow the FRAND licence, because injunctive relief is a powerful tool for the SEP holder to commit patent hold-up and demand unreasonably high licence fees, which will endanger the stable supply of standardization-related products and harm the interests of consumers. In the context of SEPs, there is never a case where money – in the form of royalty – is inadequate to compensate for the infringement.

Although the debate is heated, different interest stakeholders share this common view: FRAND commitments can benefit all participants in the standards ecosystem. However, there is a discrepancy between the parties in the understanding of the meaning of FRAND, especially to what extent the FRAND commitment limits injunctive relief. It is clear that differently interested parties simply gather data that is favourable to them. Further elaboration of what FRAND entails could be helpful to calm the controversy, which must be based on a neutral position, with the help of relevant classical theories.

2. The nature of the FRAND commitment from the perspective of property rule and liability rule

The different understanding of the nature of FRAND by different courts and market players contributes to the main reason for the current deadlock. It is of great significance to reach a theoretical consensus on the essence of FRAND to promote the global SEPs licensing negotiations and return to market rationality. Most current research focuses on the legal framework within which FRAND is understood¹⁵ and rarely analyses the nature of FRAND from a more fundamental perspective.

¹⁵ J. Gregory Sidak, "The FRAND Contract", *Criterion Journal on Innovation* 3 (2018), 14. Contreras has suggested legal rationales beyond contract law – including promissory estoppel, equitable estoppel, and antitrust law – by which implementers could enforce a SEP holder's FRAND commitment. See Jorge L. Contreras, "A Market Reliance Theory for FRAND Commitments and Other Patent Pledges", *Utah Law Review* 2015, no. 2 (2015), 479.

a. Basic concepts of protection rules for property rights

i. Liability rules and property rules

Entitlement is an important concept in the legal system – it decides which side to favour when facing conflicting interests of two or more people, or two or more groups of people. In the absence of such a decision, access to goods, services, and life itself will be decided on the basis of ‘might makes right’. How are initial rights defined? Coase’s view is that resources should go to those who use them most efficiently.¹⁶ However, simply setting the entitlement does not avoid the problem of ‘might makes right’, a minimum of state intervention is always necessary.¹⁷ As a result, the state not only has to decide whom to entitle, but it must also simultaneously decide how entitlements are protected and whether an individual is allowed to sell or trade the entitlement.

The state has two fundamental ways of protecting property rights at its disposal: property rules and liability rules. When an entitlement is protected by property rule, it means that once the original entitlement is decided upon, the state does not try to decide its value. It lets each of the parties say how much the entitlement is worth to them and gives the seller a veto if the buyer does not offer enough. In other words, property rules involve a collective decision as to who is to be given an initial entitlement, but not as to the value of the entitlement. By contrast, the liability rule involves an additional stage of state intervention: not only are entitlements protected, but their transfer or destruction is allowed on the basis of a value determined by some organ of the state, rather than by the parties themselves.¹⁸ This value may be what it is thought the original holder of the entitlement would have sold it for. But the holder’s complaint that he would have demanded more will not avail him once the objectively determined value is set.

¹⁶ R. H. Coase, “The Problem of Social Cost”, *Journal of Law & Economics* 3 (1960): 25. The theorem says that in a world with zero transaction costs, initial rights allocations are unimportant; they will be transferred to their highest value through private bargains.

¹⁷ Warren J. Samuels, “Interrelations between Legal and Economic Process”, *Journal of Law & Economics* 14, no. 2 (1971), 440.

¹⁸ Guido Calabresi and A. Douglas Melamed, “Property Rules, Liability Rules, and Inalienability: One View of the Cathedral”, *Harvard Law Review* 85, no. 6 (1972), 1073.

ii. Why do we need liability rules at all?

a) Transaction cost

Calabresi raised the following question: why cannot society limit itself to the property rule? Coase Theorem shed a light on this: “If bargaining is costly and information is imperfect, then liability rules help to achieve optimality and the party that has the least costly way of dealing with the harmful effects of an externality should be made responsible for paying the costs associated with the externality”.¹⁹ While in an ideal situation, scarce resources would always flow to those who utilize them the most, in the real world the transaction costs are not zero. Our society is made up of countless people and, often, agreements have to be made between two or even more people to compete for the use of resources, which can include many costs. For example, people will hide their true thoughts from each other, bluff in bargaining, and distrust each other – all of these knockout behaviours could lead to transaction costs. At this point, a third party is needed to use the power at hand to redistribute resources when they know how they are best used. This is the fundamental reason for the existence of all institutions, customs, and habits, as well as governments and courts: to define resources, responsibilities, and rights.

b) Public interest

According to Calabresi, the reason for liability rules is that the single property rule suffers from a fundamental flaw: it may impede the public good. When such a situation arises, some degree of restriction of private property rights based on the public interest is required in order to pursue a higher order of value that outweighs the protection of private rights.

b. Entitlement and protection rules for Intellectual Property

How should intellectual property be protected in the standardized ecology, property rules, or liability rules? To answer this question, we must initially explore two fundamental questions: (i) how to set the entitlement for intellectual property; (ii) and what the principle is when deciding the proper rule to protect intellectual property.

¹⁹ Coase, “The Problem of Social Cost”. See also Joshua D. Wright, “SSOs, FRAND, and Antitrust: Lessons from the Economics of Incomplete Contracts”, *George Mason Law Review* 21, no. 4 (2014), 765.

i. Entitlement for Intellectual Property

How to set entitlement for intellectual property as an abstract object?

There are two theories involved, prioritarianism and instrumentalism. There are two striking features of prioritarianism. First, rights are said to have a pre-societal and pre-institutional existence. A second critical feature is that these rights function, in Nozick's words, as constraints on decision-making. This means that such rights set permanent limits on what is morally permissible. In this view, rights are like fixtures. They cannot be moved because some better result might be obtained by doing so. So, to take a standard example, the liberty of an innocent individual cannot be infringed upon simply because this would make a populace happier. This natural rights-based prioritarianism assigns property rights a fundamental and entrenched status. Property rights are given a priority ranking over other kinds of rights and interests.²⁰ Proprietarianism can be supported within a consequentialist framework. Bentham believes that a state cannot grow rich except by an inviolable respect for a property because property rights can be used to overcome people's "aversion to labour".²¹ With property rights, people would have an incentive to work and industry would prosper, while without property rights, industry would decline.²²

By contrast, from an instrumentalist perspective, property law is considered a tool that primarily focuses on behavioural aspects of property rather than on the metaphysical, ethical, and epistemological issues that have characterized philosophical property investigations. The instrumentalism of property does not aspire to reveal the deep structures of property or its essential nature. Instrumentalism begins to investigate the contingent connections and processes that exist between property and individual

²⁰ Over the last decades, more and more courts and commentators have sought to align the rights of IP holders with those of real property owners, arguing for pervasive use of property rules and limited use of "liability rules" (which allow access at a price set by a court or agency). See Mark A. Lemley and Philip J. Weiser, "Should Property or Liability Rules Govern Information", *Texas Law Review* 85, no. 4 (March 2007): 789; See also Robert P. Merges, "Of Property Rules, Coase, and Intellectual Property", *Columbia Law Review* 94, no. 8 (December 1994): 2636.

²¹ Walton H. Hamilton, "Property – According to Locke", *Yale Law Journal* 41, no. 6 (1932), 869; Jere M. Webb and Lawrence A. Locke, "Intellectual Property Misuse: Recent Developments in the Misuse Doctrine", *Journal of the Patent and Trademark Office Society* 73, no. 5 (1991), 345.

²² Peter Drahos, *A Philosophy of Intellectual Property* (Dartmouth: Dartmouth publishing company, 1996). Peter Drahos raised his own key philosophical concepts in intellectual property law: The relationship between property rights and the intellectual commons, the notion of positive community (free for all to use) and negative community (free for all to take), and the dangers inherent to the later notion.

behaviour and choice, between property and the formation of groups and factions, between property and power, between property and patterns of economic growth and development, and between property and the social patterns and organizations it gives rise to, as well as the way in which property comes to be patterned and shaped by social organizations. The instrumental perspective of property also draws on economic approaches to law. It endorses an approach that calculates the social costs of intellectual property protection. Economic approaches also have the merit that they make the distributive consequences of changes in property arrangements more transparent.

Instrumentalism seems to be a more pragmatic and rational theory.²³ As governmentally conferred rights, intellectual property rights have existed as a privilege since their inception. The famous Statute of Monopolies was passed in 1623, declaring all monopolies void,²⁴ excepting the Letters Patent, granted to the first and true inventor for 14 years. Section 6 of this Act makes an exception in favour of patents for new inventions in the following words:

*“Provided that any declaration before mentioned shall not extend to any letters patent, or grants of privileges for the term of fourteen years or under, for the sole working of any manner of new manufactures within this realm, to the true and first inventor and inventors of such manufactures, which others at the time of making out such letters patents, or grants, shall not use, so as they also be not contrary to law, nor mischievous to the State by raising prices of commodities at home, or hurt of trade, or generally inconvenient, the said fourteen years to grants of such privilege hereafter to be made, but that the same shall be of such force as they shall be if this Act had never been made, and of none other.”*²⁵

²³ Drahos, *A Philosophy of Intellectual Property*, 233. In the concluding chapter of this book, Peter Drahos calls for an instrumentalist (property as tool) rather than proprietary (property as right) approach to developing questions in intellectual property laws. Instrumentalism would require a strongly articulated conception of the public purpose and role of intellectual property.

²⁴ Blackstone defined a monopoly as: “a license or privilege allowed by the King for the sole buying and selling, making, working, or using of anything whatever; whereby the subject in general is restrained from the liberty of manufacturing or trading which he had before”.

²⁵ Statute of Monopolies as cited in Emory L. Groff, “Misinterpretation of Statute of Monopolies”, *Journal of the Patent Office Society* 40, no. 5 (1958), 367-370.

We can see from this Section that for the harm of monopoly brought by the privilege, the patent right was granted on the condition that it did not violate the law or harm the interests of the state, and it was clearly stipulated that the patent right was the privilege of the inventor and not a natural right.²⁶ Indeed, even in countries like the United States and France, where natural rights had a revolutionary political impact, patent rights were seen from the beginning as rights that could be shaped, limited, and eventually revoked at any time by existing laws. Inventors and writers could at best expect a temporary advantage, which was essentially a privilege that could not be exceeded beyond a certain point without causing harm to others.²⁷

Therefore, rights in intellectual property should be replaced by talks about privileges, which should not be granted priority over other kinds of rights and interests. Where proprietarianism assigns property rights a fundamental and entrenched status, it must be rejected, whether based on natural rights or some other theory. If the purpose of establishing a privilege is to achieve a given goal, then the holder of the privilege is obligated to exercise it in a manner that does not undermine the purpose for which the privilege was originally granted. The holder of the intellectual property privilege is subject to certain obligations, and such obligations require that the power be exercised in a responsible manner.

ii. What is the consideration when deciding the proper rule to protect Intellectual Property?

Both property rules and liability rules could be applied for the protection of Intellectual Property. In some cases, injunctions are necessary, but in other cases, liability principles must be applied to maximize the interests of all parties. Transaction costs, distributive theory, and public interest are

²⁶ On November 20, 1601, Francis Bacon, when considering these burdensome monopolies, distinguished them from new creations and drafted the basis definition of patent protection as follows: “if any man out of his own wit, industry or endeavor, finds out anything beneficial for the Commonwealth, or bring any new invention which every subject of this Realm may use; yet in regard of his pains, travail, and charges therein, Her Majesty is pleased to grant him a privilege to use the same only by himself, or his deputies, for a certain time”.

²⁷ In fact, based on the interpretation of TRIPS Article 7 on the objectives: the protection and enforcement of intellectual property rights shall contribute to the promotion of innovation and the transfer and dissemination of technology, to the mutual benefit of creators and users of technological knowledge, and to social and economic welfare and the balance of rights and obligations, the intellectual property system is not one-sided to protect the interests of the patentee, and it is unreasonable to claim that the right to injunctive relief is an inherent right of the patentee and should not be restricted.

three dimensions that contribute to the application of liability rules in the context of IPRs.

a) Transaction costs

The problem of transaction costs is the most blatant one when applying the Coase theorem to IPRs. What Calabresi and Melamed generally categorize as “transaction costs” actually encompasses two different types of costs: (1) the difficulty and expense of having to negotiate multiple deals, and (2) the risk that some sellers will engage in strategic behaviour to try to increase their share of the rents. An example of the latter discussed by Calabresi and Melamed was the use of a “holdout strategy”.²⁸ In particular, they explained that in some cases a firm would turn down a profitable offer for their property in an effort to capture a disproportionate share of the “economic rents” created by the deal.²⁹ Strategic behaviour is a particularly serious problem in the IP context.³⁰ It usually means that a firm not practicing a patent sought to use the threat of an injunction as a strategic tool to demand extra licensing fees.³¹

b) Distribution factors and public interest

Although the overall goal of intellectual property law is often described in allocational efficiency terms (i.e., to increase economic output by overcoming market failures associated with the public goods quality of creative works), there is often an undercurrent of concern with the distribution of resources.³² In Chapter 6 – “Property, opportunity and self-interest” –, Drahos states the dangers inherent to the expansion of intellectual property rights in terms of the actions of self-interested actors in the marketplace: property rights in abstract objects offer these holders strategic opportunities within the marketplace. Intellectual property rights are paradoxical in

²⁸ Lemley and Weiser, “Should Property or Liability Rules Govern Information”, 787.

²⁹ Ibidem, 796.

³⁰ Oliver E. Williamson, “Transaction-Cost Economics: The Governance of Contractual Relations”, *Journal of Law & Economics* 22, no. 2 (1979), 239.

³¹ The patent-holdup conjecture posits that, when a potential licensee has made a sunk investment in the implementation of an industry standard and becomes locked into the use of SEPs, a given SEP holder could demand from the potential licensee a royalty exceeding the value of the SEP holder’s technology. See Mark A. Lemley and Carl Shapiro, “Patent Holdup and Royalty Stacking”, *Texas Law Review* 85, no. 7 (2007), 2013; Mark A. Lemley, “A Rational System of Design Patent Remedies”, *Stanford Technology Law Review* 17 (2013-2014), 226.

³² Robert P. Merges, “Of Property Rules, Coase, and Intellectual Property”, *Columbia Law Review* 94, no. 8 (1994), 26583.

the way they create an incentive to generate new information, the distribution of which is in the public interest, by restricting access to the information created. It is thus essential to strike a fine balance between the incentive function and the distributive function of intellectual property laws, between the public and private interest.

c. SEPs should be protected by liability rules

Standards have become a necessity in industries with high compatibility needs.³³ As a technical specification, standards have a natural overlap with patented technologies, and patents often represent advanced technologies, and the incorporation of patented technologies into standards helps to promote the quality of standards. However, the incorporation of patents into standards increases the cost of standards' implementation, reflected in the fact that the existence of private property rights in standards reduces the incentive of investors to implement standards, but, mainly, in the transaction costs of the SEPs licensing process, where the SEPs holder expects the highest possible return while the standard implementer expects the opposite. In order to reconcile this contradiction, different interests have gradually established the FRAND licensing principle in a long-term game,³⁴ which has become the core intellectual property policy of many standardization organizations. FRAND reflects a voluntary reciprocal exchange of benefits and obligations driven by the need to solve significant coordination problems in the face of otherwise prohibitive transaction costs.

However, the pervasive phenomenon of "holdup", "hold-out", and "forum shopping" means that strategic use of injunctive relief is a serious problem in SEPs cases, which has increased the transaction costs significantly. The European Commission attributed the causes of the main problems that affect both SEP holders and SEP implementers involving

³³ Standards such as Wi-Fi, USB, HTTP, and 4G ensure that devices manufactured by different vendors can communicate and interoperate with one another seamlessly and invisibly to the consumer. Most of the standards used in the technology marketplace today are developed by groups of engineers representing different market participants who collaborate, either in person or virtually, at one or more standards development organizations (SDOs).

³⁴ Because SDO participants may obtain patents covering an aspect or a technical standard, and because SDOs and their participants generally wish to promote broad use and adoption of their standards, over the years SDOs have developed policies to prevent their participants from enforcing patents to block the use of the SDO's standards or making such use so costly that the standards become economically undesirable. See Jorge L. Contreras, "A Market Reliance Theory for FRAND Commitments and Other Patent Pledges", *Utah Law Review* 2015, no. 2 (2015), 456.

inefficient licensing to three reasons: (i) insufficient transparency and predictability;³⁵ (ii) uncertainty about FRAND terms and conditions;³⁶ and (iii) high enforcement costs and inefficient enforcement. Clearly, the lack of clarity in the remedies for infringement of SEPs is a significant contributor to the increased transaction costs. The SEP holder's use of an injunction would indeed exacerbate the risk of the patent holdup;³⁷ however, if the potential implementer could unilaterally infringe without any cost, it would continuously delay the negotiation process of the licence fee, which is the so-called patent hold-out, forcing the patent owner to deal a licence fee lower than the FRAND royalty.³⁸ In other words, the rules of the game determine the bargaining position.

Therefore, the strategic use of injunctive relief is no ordinary type of transaction cost, but rather reflects the fact that certain conditions – including legal uncertainty – can increase the value of entitlement and make a holdup (or hold out) strategy rational.³⁹ Because the legal system itself creates the opportunity for the holdup, it has a special duty to prevent such activity.

³⁵ SEP licensing suffers from a lack of transparency. Some SDOs allow “blanket” declarations which do not specify the patents that could be essential for a given standard. Other SDOs, such as the ETSI, require patent data from anyone contributing to a SEP, but once a declaration is made by the SEP contributor, it is seldom updated.

³⁶ At the time the standard is adopted, SEP holders may not be aware of all potential applications of the standard. Therefore, SEP holders usually wait for the market to develop before asking implementers to take a licence. This means that when products are developed and launched on markets, implementers may not have sufficient information as to which – and whose – patents they need to license and what the royalty fees for this would be. There is also another problem: current business practices mean that coherent and meaningful information on FRAND licensing terms and conditions is usually not made publicly available. Both SEP holders and SEP implementers tend to keep confidential the results of their negotiations and agreed on licensing terms and conditions – including FRAND royalties.

³⁷ Lemley and Weiser, “Should Property or Liability Rules Govern Information”, 793. Lemley and Shapiro argue that an SEP holder's use of an injunction would exacerbate the risk of patent holdup. In their view, an SEP holder's mere threat to exclude a licensee's products from the market, even if only for a limited period of time, could enable the SEP holder to extract licensing fees from the licensee that exceeded the SEP's genuine economic value.

³⁸ According to Ericsson, even with availability of injunctive relief under existing federal law, it is difficult and costly to successfully conclude licensing agreements for FRAND-assured essential patents with opportunistic infringers who behave in bad faith. The problem is exacerbated when negotiating with powerful infringers who invest millions in lucrative hold-out litigation strategies aimed at delaying conclusion of a license. In addition, some jurisdictions regularly bring unfounded antitrust agency investigations against any assertion of SEPs against local heroes, which makes the successful conclusions of such licences even more challenging.

³⁹ Lemley and Weiser, “Should Property or Liability Rules Govern Information”, 787.

The key to avoiding opportunistic behaviour is to enforce FRAND commitments. The material consequences of making FRAND commitments are that the IPR owner waives its rights to refuse to engage in good faith negotiations to license and to grant an exclusive licence,⁴⁰ the standard implementer is entitled to use the technology first and then negotiate the licence fee, and the SEPs owner can never obtain any royalty as much as it desires in the standardization context, which is allowed under the property rules in reverse. By making this promise, all the participants who own patents in the resulting standard grant the adopting community an irrevocable right to use its patented technology to comply with the standard in exchange for a reasonable royalty and other reasonable terms, the details of which are negotiated later without any possibility of a court injunction. Indeed, the details of the licence that the parties later negotiate are quite minor compared to the paramount importance of establishing the patentee's inability to seek an injunction. Where the parties cannot reach a licence agreement, the courts will determine what royalty is reasonable based on industry custom.⁴¹

3. How to apply *eBay* ruling to SEPs

a. U.S. courts have analysed the availability of injunctive relief for infringement under eBay's equitable framework

By comparison with the practice in Europe, patent law itself and other bodies of law, including the law of remedies or generally applicable provisions of civil law, as applied to patent rights, provide a more promising basis for denying injunctive relief in the United States. In *eBay Inc. v. MercExchange, L.L.C.*, the Supreme Court confronted the issue of strategic patent litigation in technology markets and set forth the terms for the coming debate over whether patent law should provide injunctive relief in the vast majority of cases.

Up until *eBay*, the Federal Circuit had developed a general rule which stated that courts would issue permanent injunctions against patent infringements absent of exceptional circumstances.⁴² Courts denied

⁴⁰ Damien Geradin and Miguel Rato, "Can Standard-Setting Lead to Exploitative Abuse: A Dissonant View on Patent Hold-Up, Royalty Stacking and the Meaning of FRAND", *European Competition Journal* 3, no. 1 (2007), 122.

⁴¹ Joseph Scott Miller, "Standard Setting, Patents, and an Access Lock-In: RAND Licensing and the Theory of the Firm", *Indiana Law Review* 40, no. 2 (2007), 362.

⁴² *Merc Exchange, L.L.C. v. eBay, Inc.*, 401 F.3d 1323, 1339 (2005).

permanent injunctions based on a threat to public health or safety. Under this rule, granting automatic injunctive relief was the general course of action after a patent was found valid and infringed. The rationale for this general rule was that “the right to exclude recognized in a patent is but the essence of the concept of property”.⁴³

However, the Supreme Court overruled this general rule in *eBay*.⁴⁴ The Supreme Court noted that the creation of a right is not the same as the creation of a remedy for that right. It is true that U.S. patent law itself states that patents should be of a personal property nature, but the question of remedies for patent rights is likewise governed by Section 283 of the Patent Act, which specifically authorizes injunctive relief in patent cases.

The several courts having jurisdiction of cases under this title may grant injunctions by the principle of equity to prevent the violation of any right secured by patent, on such terms as the court deems reasonable.⁴⁵

US courts sitting historically in equity jurisdiction had the authority to grant a remedy only if available legal remedies were inadequate to redress the wrong. This principle has come to be known as the “irreparable harm” or “irreparable injury” rule: equity will not grant a remedy for the violation of a legal right unless the plaintiff would otherwise suffer irreparable harm. Irreparable harm is often found when the dispute concerns a unique item, such as a parcel of land or an heirloom, when a Constitutional right such as freedom of speech or the right to vote is abridged, when the defendant has engaged in respected acts requiring multiple suits to resolve, or when monetary relief is either difficult to collect or to measure.⁴⁶

The Supreme Court held that a patent holder seeking a permanent injunction must make a four-part showing: that (1) it has suffered an irreparable injury; (2) remedies available at law, such as monetary damages, are inadequate to compensate for that injury; (3) considering the balance of hardships between the plaintiff and the defendant, a remedy in equity

⁴³ Walter O. Alomar-Jimenez, “Harmonizing *eBay*”. *University of Puerto Rico Business Law Journal*, no. 1 (2010), 25.

⁴⁴ The plaintiff, in this case, Merc Exchange, Inc., was the patentee of a business method that facilitated the efficient conduct of transactions on an electronic marketplace. Merc Exchange did not enforce the patent and relied on licensing others to do so for financial gain. Defendant eBay, an e-commerce company, implemented the method without a licence. In a preliminary hearing in a federal district court, a jury found eBay guilty of infringement and awarded damages.

⁴⁵ The creation of a right is distinct from the provision of remedies for violations of that right. U.S.C. 283.

⁴⁶ Dan B. Dobbs, *Dobbs Law of Remedies* Vol. 1 (2nd ed., West Publ., 1993) 56.

is warranted; and (4) the public interest would not be disserved by a permanent injunction.⁴⁷ Obviously, *eBay*'s equitable framework embodies the basic principle of treating intellectual property rights based on an instrumentalist rather than proprietary theory.

b. U.S. courts failed to apply eBay ruling to SEPs appropriately

U.S. courts generally share the following view: in the context of standards, it is likely that the four factors enumerated in *eBay* will weigh against an injunction, especially when a FRAND commitment exists.⁴⁸ For instance, the U.S. Court of Appeals for the Federal Circuit has held that the availability of injunctive relief for infringement of SEPs subject to FRAND licensing commitments should be analysed under *eBay*'s equitable framework like all other patents. In applying *eBay* ruling, the Federal Circuit has observed that a patentee subject to FRAND commitments may have difficulty establishing irreparable harm when the patent holder has agreed to widely license. In addition, monetary damages may be available to redress the infringement, which also counsels against an injunction. Courts must further consider the public's interest in encouraging participation in standard-setting organizations and ensuring that SEPs are not overvalued.⁴⁹

Nevertheless, to analyse the question whether a SEP holder should be able to enforce its exclusive rights by bringing an injunction claim in court, the U.S. court indeed cited primarily three reasons in practice. First, the act of requesting an injunction or otherwise asserting exclusionary rights is inconsistent with the FRAND commitment, which requires patent holders to license their SEPs. For instance, when the Ninth Circuit decided an interlocutory appeal in *Microsoft v. Motorola*, the court noted *in dicta* that injunctive relief is arguably a remedy inconsistent with the licensing commitment, and it could well be that the only remedy that a

⁴⁷ Inadequate damages generally arise in the following situations: 1. the object of the right to be protected is unique; 2. the amount of damages is difficult to calculate, and the difficulty of calculation generally exists in situations where there is a competitive relationship between the two and the infringement has harmed the commercial interests of the patentee, as evidenced by: (1) the amount of damages being considered difficult to calculate if the economic harm reaches a level that makes the plaintiff's business operations unsustainable; (2) the loss of opportunity being also often considered difficult to calculate; 3. the defendant's inability to pay; 4. the possibility of multiple lawsuits: if no injunction is issued, the infringement will continue to occur, the plaintiff has to file another lawsuit to defend the right, then the "inadequate" standard of compensation relief is satisfied.

⁴⁸ Merges and Kuhn, "An Estoppel Doctrine for patented standards", 2664.

⁴⁹ See *Apple Inc. v. Motorola, Inc.*, 757 f.3d 1286, 1332 (Fed. Cir. 2014).

patent owner could seek consistent with FRAND commitments made to ITU would be for the court to set a reasonable royalty and have it apply retrospectively.⁵⁰ Likewise, in *Apple v. Motorola, Inc.*, Judge Posner similarly found that Motorola's FRAND commitment precluded injunctive relief. Second, the undertaking of the FRAND commitment implicitly assumes that royalties are a sufficient remedy for the infringement in most cases because the commitment requires the patent holders to license out their patents.⁵¹ Third, the implementer is willing or able to enter into a FRAND licence. The U.S. Court of Appeals for the Federal Circuit has held that an injunction may be justified where an implementer is unwilling or unable to enter into a FRAND licence.

These reasons show that U.S. courts have failed to apply *eBay*'s equitable framework to SEPs appropriately. In fact, according to Coase's theorem, the law should assign tort liability to the "cheapest cost avoider" – that is, to the party able to minimize negative externalities or third-party harms most efficiently. The factors enumerated in the *eBay* ruling essentially demonstrate a balance between the various related social costs that may arise from the issuance of the injunction. *eBay*'s equitable framework indeed asks the court to judge who will be the "cheapest cost avoider" by weighing various factors in individual cases. From this perspective, the issuance of an injunction is not necessarily linked to the subjective behaviours reflected in the negotiation process. It is mainly the transaction cost, not the commitment the SEPs holder made to SSOs, that limits the grant of injunctive relief as a property rule.

As results from our discussion, in the FRAND context, the cost of granting an injunction is significant;⁵² patent holdup means that the patent

⁵⁰ *Microsoft Corp. v. Motorola Inc.*, 696 F.3d 872, 885 (9th Cir. 2012). The court found that exclusion of potential implementers of the standard, including through the use of an injunction, would be incompatible with the "sweeping promise" Motorola had given the ITU.

⁵¹ Richard A. Epstein and Kayvan B. Noroozi, "Why Incentives for Patent Holdout Threaten to Dismantle FRAND, and Why It Matters", *Berkeley Technology Law Journal* 32, no. 4 (2017), 1342.

⁵² In *eBay*, the concurring opinion authored by Justice Kennedy recognizes that a departure from precedent is sometimes necessary in light of changed circumstances. He suggests three reasons for departing from the general rule of granting permanent injunctions for patent infringement. One of the relative reasons is the complex invention problem, which his statement can sum up: When the patented invention is but a small component of the product the companies seek to produce and the threat of an injunction is employed simply for undue leverage in negotiations, legal damages may well be sufficient to compensate for the infringement and an injunction may not serve the public interest.

owner can get any value other than the FRAND royalty.⁵³ Consequently, injunctive relief can systematically overcompensate plaintiffs and over-deter defendants, undermining the goal that FRAND, as a private cooperative mechanism, is designed to achieve. Therefore, it is the significant transaction costs rather than the subjective attitude displayed during the negotiation process, that justify liability rule as the reasonable remedy for infringement of SEPs, which means SEPs holders should not obtain the injunction no matter whether potential licensees would be judged as a willing licensee or not.

In this case, a SEP owner would complain that, if the injunction could not be obtained, SEP implementers would delay the licensing negotiation, which would result in hold-out. The contributors of a standard would not participate in the standardization activity anymore, which would put the IoT industry in danger. To resolve this confusion, taking measures to prevent hold-out is also crucial. As with equitable relief, awarding reasonable damages for patent infringement is a realistic choice. A FRAND commitment does not preclude enhanced damages for wilful infringement if a potential licensee acts in bad faith. When applying the *eBay* ruling to determine remedies for SEPs, U.S. courts usually consider the amount of damages based on the FRAND standard, which would not be conducive to promoting the restoration of FRAND cooperative solutions by market players, intensifying the opportunistic behaviour, which is not only detrimental to the interests of the patentee but also leads to the imbalance of the entire SEP system based on the private cooperation mechanism embodied by FRAND.

4. Has the Huawei v. ZTE framework provided an effective mechanism to enforce FRAND?

As demonstrated by the previous discussion, the appropriate damages for the infringement of SEPs should be judged in individual cases based on the subjective fault of the potential licensee, reflected by his conduct in the negotiation process. Compared to U.S. courts, the EU pays more attention to reducing opportunistic behaviours during the negotiation process. Through a range of cases, both the European Commission and the CJEU have formed a balanced procedural framework to encourage FRAND-ly

⁵³ J. Gregory Sidak, "Holdup, Royalty Stacking, and the Presumption of Injunctive Relief for Patent Infringement: A Reply to Lemley and Shapiro", *Minnesota Law Review* 92, no. 3 (2008), 706.

negotiations between licensing parties, a framework that has been widely drawn upon worldwide. However, many questions remain open, most notably whether bad-faith conduct is directly linked to the issuance of an injunction.

a. EU's approaches to facilitate access to SEPs

In Europe, competition law may come to play a larger role than patent law in forcing SEP owners to license their patents on FRAND terms. According to German law and case law, the right to seek injunctive relief may only be restricted if the patentee's conduct constitutes an act of unfair competition. Therefore, German courts and the CJEU have mainly examined whether the SEP owner's application for an injunction constitutes an abuse of dominant position from the perspective of competition law.

i. German court's judgment in Orange-Book-standard – a pure competition perspective

The case involved a patent that was allegedly essential to standards covering recordable compact discs, or CD-Rs. These technical standards were set forth in a document known as the Orange Book. Philips, the owner of the patent, sued several CD-R manufacturers that had failed to seek out a licence from Philips. Philips sought an injunction – which is almost always granted in Germany upon a finding of infringement – as well as monetary damages. One defendant offered a defence that Philips was abusing its dominant position in the CD-R market by seeking an injunction on its standard-essential patent, thereby violating Article 82 of the Treaty on European Community.

In its decision, the court set forth the parameters of the Orange Book defence, explaining that a defendant facing a claim for an injunction can defend itself by pleading that the plaintiff abuses a dominant position in the market only if:

- (i) The defendant unconditionally offers to enter into a licence agreement with the plaintiff for the patent at a particular royalty rate or at a rate to be determined by the plaintiff (and reviewed by the court);
- (ii) The defendant behaves as if it is an actual licensee and pays royalties into an escrow account.⁵⁴

⁵⁴ Az. KZR 39/06.

The court held that an unconditional contractual offer to commit (FRAND) was not sufficient to establish a “compulsory licence defence” to an injunction claim.⁵⁵ A patentee with a dominant market position is not obliged to offer to agree to use the invention on its own initiative; it is only when the patentee refuses to conclude a contractual offer on non-obstructive or non-discriminatory terms that the right holder abuses its dominant market position. The court need not examine the reasonableness of the licence fee in the offer; the patentee has complete freedom to practice its patent, so long as its pricing does not discriminate against the licensee and thereby affects competition in the downstream market.

What we can draw from this case is that, in regulating the conduct of a patentee’s injunction application under competition law, the court focused solely on the impact of this conduct on competition in the downstream market. The protection of patent rights is still based on property rules, and the patentee has a great deal of autonomy in the determination of the licence terms.

ii. “Willing licensee” will be protected against SEP-based injunctions

The European Commission (EC) adopted two antitrust decisions addressed to Motorola Mobility and Samsung in 2014. According to the EC’s position in *Motorola Mobility v. Samsung Electronics*, the seeking of injunctions may be abusive when two conditions are met: first, a SEP holder has given a commitment to license on FRAND terms during standard-setting; and, second, the potential licensee is willing to enter into a licence on FRAND terms.⁵⁶ To address the Commission’s concerns, Samsung has committed for a period of five years not to seek any injunctions in the European Economic Area (EEA) on the basis of any of its SEPs, present and future, which relate to technologies implemented in smartphones and tablets against any company that agrees to a particular framework for licensing the relevant SEPs.

⁵⁵ See Srividhya Ragavan, Brendan Murphy and Raj Dave, “FRAND v. Compulsory Licensing: The Lesser of the Two Evils”, *Duke Law & Technology Review* 14 (2015-2016), 96.

⁵⁶ Since injunctions generally involve a prohibition of the product infringing the patent being sold, seeking SEP-based injunctions against a willing licensee could risk excluding products from the market. Such a threat can therefore distort licensing negotiations and lead to anticompetitive licensing terms that the licensee of the SEP would not have accepted absent the seeking of the injunction. Such an anticompetitive outcome would be detrimental to innovation and could harm consumers.

The licensing framework provides for:

- (i) a negotiation period of up to 12 months; and
- (ii) if no agreement is reached, a third-party determination of FRAND terms by a court if either party chooses so, or by an arbitrator if both parties agree on this.⁵⁷

The commitments, therefore, provide a “safe harbour” for all potential licensees of the relevant Samsung SEPs. Indeed, potential licensees that sign up for the licensing framework will be protected against SEP-based injunctions by Samsung.

Although still dealing with the issue of injunction applications under the competition law framework, EC’s attention considered both the exploitative and exclusive abuse of market dominance of injunction application, which imposed additional obligations on SEPs holders, compared to the *Orange-Book-standard*. In order to avoid such exploitative pricing problems, the patentee must waive the imposition of an injunction on all licensees willing to negotiate a licence, while completing the negotiations within a certain period of time, or it must submit to a court or arbitration body for adjudication of FRAND terms. Under the framework of competition law, property rules can still be applied to patent remedies, but the patentee in this case enjoins less opportunity to set royalties at will be compared with the *Orange-Book-standard*, an approach very similar to that when the liability rule is applied.

iii. The Huawei v. ZTE framework

Due to the inconsistency of the rules between the German court and the EC, in the *Huawei v. ZTE* litigation, the German court requested the CJEU to interpret in which circumstances a patentee seeking injunctive relief constitutes an abuse.⁵⁸ The CJEU thus rebalanced the obligations of the licensing parties and constructed a more transparent licensing negotiation process.⁵⁹

In its *Huawei v. ZTE* judgment, the CJEU established (1) obligations applying to both sides of a SEP-licensing agreement when assessing

⁵⁷ https://ec.europa.eu/commission/presscorner/detail/en/IP_14_490.

⁵⁸ See Landgericht Düsseldorf [LG] [Regional Court] Mar. 21, 2013, GEWERBLICHER RECHTSSCHUTZ UND URHEBERRECHT-RECHTSPECHUNGS-REPORT [GRUR-RR] 196, 2013 (Ger.).

⁵⁹ CJEU decisions are not decisions in the original cases but are limited to interpretation of the European Union law for the questions submitted. The court that sent the questions then decides the original case based on the CJEU guidance.

whether the holder of a SEP can seek an injunction against a potential licensee without being in breach of Article 102 TFEU – SEP holders may not seek injunctions against users willing to enter into a licence on FRAND terms; and (2) behavioural criteria to assess when a potential licensee can be considered willing to enter into such a licence⁶⁰ – SEP holder and implementer shall both obey the following negotiation progress:⁶¹

(1) Prior to pursuing injunctive relief, the holder of FRAND-encumbered SEPs must provide the alleged infringer with a written notice of infringement, specifying the allegedly infringed SEPs and their infringing use.⁶²

(2) Following this, the alleged infringer must express its willingness to license the SEPs it infringes on FRAND terms.⁶³

(3) After the standard implementer expresses its willingness to conclude a licence agreement according to the FRAND terms, the SEP holder then must provide the alleged infringer with a “specific, written offer for a licence on FRAND terms” by the undertaking given to the standardization body, specifying, in particular, the amount of the royalty and the way in which that royalty is to be calculated.

(4) The alleged infringer must respond “diligently” to the SEP-holder’s offer, “in accordance with recognized commercial practices in the field and in good faith. If the alleged infringer refuses the SEP-holder’s offer, it must promptly present a written and reasonable counteroffer on FRAND

⁶⁰ Lizaveta Miadzvedskaya, “Encouraging FRAND-ly Negotiations: A Comparison of the United States and European Approaches to Allowing Injunctive Relief in Cases Involving FRAND-Encumbered Standard-Essential Patents”, *Washington University Global Studies Law Review* 18, no. 3 (2019), 745.

⁶¹ *Huawei v. ZTE*, Court of Justice of the European Union, judgment dated July 16. 2015, Case No. C-170/13.

⁶² This arrangement is reasonable compared to having the standard implementer make the offer first, because there are thousands of patented technologies in a standard and it would be costly for the standard implementer to check the status of the rights over each technology one by one. At the same time, the FRAND commitment implies that the patented technology will definitely be licensed, so that using the technology first and negotiating the price later is permitted. The German Federal Supreme Court has held that the obligation for the patentee to first give notice of infringement to the implementer of the standard is particularly necessary for the field of Internet and telecommunications, where the applicable standards cover a large number of patents and it is difficult for the implementer of the standard to screen all the patents that may be covered by the relevant standard.

⁶³ While there is no uniform timeframe under which a response is considered timely, German courts have found waiting more than five months, three months constitutes unreasonably delay. See *Landgericht Mannheim [LG] [Regional Court]* Nov. 27, 2015, *St. Lawrence v. Deutsche Telekom*, 2 O 106/14 (Ger.); LG, *Saint Lawrence v. Vodafone*, 4a O 73/14.

terms to retain its rights to obtain a prohibitory injunction against the SEP-holder on the grounds of abuse of dominant position.

(5) Once an alleged infringer's counteroffer is refused, if it continues to use the SEP-holder's patented technology prior to the conclusion of a licensing agreement between the parties, it must provide appropriate security, in accordance with recognized commercial practices in the field.⁶⁴

(6) Additionally, upon refusal of the counteroffer, the parties may agree to the determination of FRAND royalty by an independent third party.

(7) Both throughout and following licensing negotiations, the alleged infringer may challenge the validity of the asserted SEPs, their essentiality to a standard, and their alleged use.

b. Why does the balanced Huawei v. ZTE framework fail to cease the SEPs dispute still?

Although, in *Huawei v. ZTE*, the CJEU provided a more balanced framework for SEPs licensing negotiations, in comparison with Samsung, many questions remain unanswered, which leads to the fact that to the number of FRAND-related disputes has still not been effectively reduced.⁶⁵ To what extent should a standards implementer follow these procedures in order to be considered a willing licensee and, thus, exempt from the injunction? Since the court's decision in 2015, national courts in Europe have addressed some of these questions and attempted to refine the framework, providing further clarification on what is and what is not considered appropriate behaviour, based on their own standards.⁶⁶ Specifically, if the SEPs holder should make the royalty amount sufficiently transparent by indicating other reference values to the implementer; whether an offer lying above the FRAND threshold still suffices to meet the requirements set forth by the *Huawei v. ZTE* judgment; whether a SEP holder's offer for a worldwide portfolio licence complies with the *Huawei v. ZTE* judgment;

⁶⁴ Huawei, supra note 51, §67. "the calculation of that security must include, inter alia, the number of the past acts of use of the SEP, and the alleged infringer must be able to render an account in respect of those acts of use".

⁶⁵ *Huawei v. ZTE* framework looks like a negotiation rule, paying more attention to the negotiation procedure, which would lead the market to obey the rigid rules that do not address the actual problem.

⁶⁶ Claudia Tapia; Spyros Makris, "Negotiating SEP Licenses in Europe after *Huawei v. ZTE*: Guidance from National Courts", *Managing Intellectual Property* 275 (2018), 23; Andrew Moir, David Wilson and Nic Ruesink-Brown; see also Joseph Falcone and Allison Alcasabas, "Recent Guidance on SEP Licensing in the US and EU", *Managing Intellectual Property* 252 (2015), 15.

and whether the implementer is required to respond to a SEP holder's licensing offer not FRAND conform.

Why is such a balanced negotiation framework still not effective in terms of preventing opportunistic behaviour? An ostensible reason is that the standard for identifying an unwilling licensee is still vague, and the fundamental reason is that the opportunistic behaviour does not fall within the scope of competition law,⁶⁷ which is essentially a matter of patent law.⁶⁸

Both the CJEU in *Huawei v. ZTE* and the EC in *Motorola Mobility v. Samsung Electronics* determine the applying for the injunction constituted an abuse of dominant position from a subjective perspective, which involved the premise that a patentee can still obtain an injunction from a property rule perspective without violating the competition law framework. The problem, however, is that the criteria to judge the "willing licensee" is constantly changing,⁶⁹ thereby not reflecting the essence of competition law. From a competition law perspective, examining the impact of the injunction application on competition is the point – in this case, the *Orange-Book-standard* seems to be more in line with this rationale.

The substantive contribution of the *Huawei v. ZTE* framework is that it provides a relatively reasonable approach when applying liability rules in the determination of damages under the patent law framework.

5. Conclusion

Both standards-setting activities and FRAND licences are market-driven private orderings stemming from private parties' collaborations.⁷⁰ What the Court should do is to facilitate the enforcement of this private cooperation mechanism. Balancing strong property rights with liability rules is a reasonable approach. If an injunction is issued once implementers failed

⁶⁷ King Fung Tsang and Jyh-An Lee, "Unfriendly Choice of Law in FRAND", *Virginia Journal of International Law* 59, no. 2 (2019), 268. See also Praveen Tripathi, "Standards, FRAND and Competition Law", *International Journal of Law Management & Humanities* 5 (2022), 829; Joseph Kattan, "FRAND Wars and Section 2", *Antitrust* 27, no. 3 (2013), 30; Carl Shapiro and Mark A. Lemley, "The Role of Antitrust in Preventing Patent Holdup", *University of Pennsylvania Law Review* 168, no. 7 (2020), 2000.

⁶⁸ The German Patent Act has been revised to include a proportionality test when grant injunction. See Spyros Makris, "The Recent Proposals for a Reform of the German Patent Act: A True 'Modernisation' of the Patent System?", *International In-House Counsel Journal* 13, no. 51 (2020), 7.

⁶⁹ The difference between the two cases lies in their different standards for determining competition law liability, which affects their ability to access the injunction.

⁷⁰ Benjamin C. Li, "The Global Convergence of FRAND Licensing Practices: Towards Interoperable Legal Standards", *Berkeley Technology Law Journal* 31, Annual Review 2016 (2016), 426.

to comply with a specific bargaining rule, then, after the issuance of the injunction, the parties would be left to negotiate the licence fee based on property rules, and the advantageous position enjoined by the SEPs holder would lead to patent-holdup again, which would weaken the fundamental goal of the FRAND. Therefore, the subjective fault is not a condition for the issuance of an injunction for SEPs, but merely a factor to be considered when determining the amount of damages.

In other words, for unfaithful behaviours in the negotiation process, it is more reasonable for the court to impose punitive damages rather than injunctive relief. In some cases, a temporary injunction could be used as a legal tool to ensure the FRAND royalty being enforced. This approach will stop the vicious game between parties in the form of injunction and anti-injunction – even anti-anti-injunction – effectively. Even if forum shopping occurs, what the court needs to consider is the calculation method of the FRAND royalty, not the injunction, and this kind of game is benighted, which the different courts would return to reason when it comes to FRAND royalty calculation. In fact, the calculation framework developed by the court recently is established to be more clear, more transparent, and more stable than the injunction judgment. This was also the approach developed by the UK court in *Unwired Planet v. Huawei*. If global courts can reach a consensus on this, the parties will only play games at the level of the calculation method of the licensing fee, which will in turn lead to a benign market and inhibit market failure, for the injunction race constitutes the main reason for the increased cost of SEPs negotiations currently.

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