Global FRAND Licensing in light of Unwired Planet vs Huawei

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Abstract

The 2017 decision by Justice Birss, which was upheld on appeal by Lord Kitchin, and Lord Justices Floyd and Asplin in the matter of Unwired Planet versus Huawei, significantly changes the Standard Essential Patents (SEPs) licensing ecosystem at the global level. In light of the fact that the case will be heard by the UK Supreme Court in October 2019, this paper intends to address its potential effects on future SEPs licensing negotiations that are to be concluded on fair, reasonable and non-discriminatory (FRAND) terms.

The (FRAND) licensing rate set by the judgment, which was set on a global basis, makes the validity, essentiality and infringement of global SEPs contingent on the opinion of the judiciary of England and Wales. At the same time as this allows the patentee to reduce transaction costs associated with global FRAND licensing, it increases information asymmetry with respect to extraterritorial SEPs as a national Court is inherently limited in an international undertaking. This can affect FRAND licensing negotiation that precede formal Court intervention.

To overcome the inherent tension between a territorially limited patent system and an increasingly international economic order, a global FRAND licensing rate should be set (if at all) by an international Court, which is equipped with transnational authority. At the European level, the establishment of such a Court is already under way in the form of the Unified Patent Court which is expected to come into place at some point.
Court decisions can affect future SEPs licensing behaviour

The recent decision by Justice Birss in Unwired Planet vs Huawei, which was upheld by the Court of Appeal, bears the potential to alter the FRAND licensing and litigation ecosystem far beyond the borders of the United Kingdom (UK). Arguably, Unwired Planet vs. Huawei marks a cornerstone in FRAND enforcement as the case embraces the concept of a global FRAND licensing rate enforced under the threat of an injunction by the UK Court.

With the case being heard by the UK Supreme Court in October 2019, it is important to assess its core tenets from a FRAND licensing perspective. Central to the analysis is the question of how a global FRAND licensing rate sanctioned by a permanent injunction in England and Wales can affect future licensing negotiations.

In Unwired Planet vs Huawei Justice Birss recognised that FRAND licensing cannot be decontextualized from the institutional arrangements it is embedded in. Rather, it is an expression and reflection of a specific set of organisational structures that incentivises or disincentivises certain licensing practices. Implicit to this argument is that firms engaging in bilateral licensing negotiations must respect the legal background and context in which they are operating. Hence, licensing negotiations are strongly affected by the legal consequences which can, in the long term have no positive results.

The governance framework set by the law maker strongly influences the nature and course of licensing negotiations; that is because both parties to the case are aware of the legal consequences a Court judgment may trigger. In the case at hand, the Judge determined a global FRAND licensing rate and sanctioned it with a permanent injunction in England and Wales. By consequence, the Court defined an unwilling licensee, as being a party, which is not willing to accept the global FRAND licensing rate set by the Court.

Knowledge of the type of legal remedies the Court can make use of influences licensing negotiations as both parties formulate their negotiation position with respect to what the ultimate legal recourse could look like. Cooter, Marks and Mnookin for example argue that licensing occurs in the ‘shadow of the law’; that is in the shadow of what the legal outcome could be should licensing negotiations fail.\(^3\) That is, the bargaining situation between a SEP holder and a downstream innovator is framed in light of a potential outcome should the Court intervene. Simply put, bargaining in the beginning of a licensing negotiation is affected by potential Court and other legal involvement later on should the SEP holder and implementer not come to an agreement.\(^4\) If the SEP holder knows that it can seek legal redress from a Court, which is likely to be of a certain value, then it will be unlikely that a freely negotiated licence will be significantly below the rate. From a public interest perspective, Court decisions should provide an equal level playing field, as Justice Birss rightly stated.

**Core Aspects of Unwired Planet vs. Huawei**

Unwired Planet is a patent assertion company (PAE) and its business consists of assuring monetary returns from intellectual property through licensing transactions. Huawei is a Chinese multinational technology company.

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Subject to the dispute were SEPs Unwired Planet acquired from Ericsson.\(^5\) Core to the argument was whether a global FRAND licence should be granted, and if so what the rate of such a licence would be.\(^6\) Unwired Planet contended that it was entitled to a global licence because a global license is FRAND. Huawei, on the other hand, stated that Unwired Planet should only be entitled to a U.K. portfolio license as a global licence would not be FRAND.\(^7\) The judge sought to resolve these questions by first seeking to come to grips with the meaning of FRAND. The Court proceeded to determine what an adequate FRAND royalty rate should be and subsequently assessed whether there were any other disputed issues associated with the FRAND license.\(^8\)

**The Unwired Planet vs Huawei Decision is Driven by the Desire to Counter Hold-Out**

The Court emphasised that fundamental to the FRAND licensing framework, is the need to strike a balance between the rightsholders and the downstream innovators. In this way, the public interest can best be maintained: ‘While the inventor must be entitled to a fair return on their invention…, the inventor must not be able to prevent others from using the patented invention… as long as implementers take an appropriate licence and pay a fair royalty.’\(^9\)

In the Court’s view, such balance of power can be assured if hold-out is avoided as this may distort the balance of power between the licensor and the licensee. Hold-out was subsequently defined as the behaviour of an ‘unscrupulous licensee to use their economic strength to avoid paying anything to a patentee, unduly dragging out the process of negotiation, thereby putting the patentee to additional cost and forcing it to accept a lower royalty rate than is fair.’\(^10\) The argument is based on the fact that IP is intangible in nature. Hence, it may be fairly easy to misappropriate IP assets through the use of the idea or method contained in those patents.\(^11\)

Intangibles are characterised by their non-excludability and non-rivalry in consumption and as


\(^6\) Unwired Planet vs Huawei, Paragraph 22;

\(^7\) Unwired Planet vs Huawei, Paragraph 23;

\(^8\) Unwired Planet vs Huawei, Paragraph 24;

\(^9\) Unwired Planet vs Huawei, Paragraph 83;

\(^10\) Unwired Planet vs Huawei, Paragraph 96;

a result these are truly public goods, which associates them by their very nature with a market failure. The introduction of property rights over intangibles aims at countering the free riding behaviour that this can trigger; however, it can only achieve this if intellectual property rights are adequately respected. Free riding can, in the theory, erode the incentive to invest in patented inventions, and therefore, such behaviour should be avoided.

The Court acknowledged Unwired Planet’s submission which encountered hold-out, however considered hold-out to be less significant than what the plaintiff had submitted. Justice Birss found that ‘Hold-out… should be sanctioned through adequate legal remedies and in particular, a permanent injunction,’ leaving the licensee with no choice, but to either accept a Court determined FRAND licensing rate, or cease to trade its infringing products. Such licensing rate should be global in character. As a result, Justice Birss’ findings were commensurate with what he held to be current market practice; stating that anything else would ‘be sheer madness.’

Justice Birss held that the significant transaction costs associated with country-by-country licensing quasi automatically leads to hold-out, as a licensor would never be in a position to enforce its SEPs in every country of the world. This reasoning is core to Justice Birss findings, and leads him to the conclusion that only a global portfolio licensing rate can be FRAND. In doing so, he permits the bundling of patents declared or essential to a standard across jurisdictions. Justice Birss decision is also based on the assumption that a plaintiff will litigate in every single country of the world, which in reality is not the case. Rather, the plaintiff would prefer to obtain licensing revenues at an international level by taking legal action in key jurisdictions, which can significantly reduce transaction costs in comparison to country by country licensing.

As for hold-up, Justice Birss defines it as ‘the ability of SEPs owners to hold implementers to ransom by reason of the incorporation of the invention into the standard by declining to grant

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13 Unwired Planet vs Huawei, Paragraph 669, Paragraph 666
14 Unwired Planet vs Huawei, Paragraph 143
15 Unwired Planet vs Huawei, Paragraph 807 at subpoint 18
16 Unwired Planet vs Huawei, Paragraph 542; 543
a licence or only grant a licence on unfair, unreasonable and discriminatory terms.’\textsuperscript{17} Despite recognizing ‘hold-up,’ it was hardly taken into consideration in the Court’s reasoning. Arguably, this can be explained by the fact that the Court believed that a willing licensee would never have to pay more than the FRAND licensing rate set by the Court, which would reflect ‘the terms a truly willing licensor and truly willing licensee would agree upon in the relevant negotiation in the relevant circumstances absent irrelevant factors such as hold-up and hold-out.’\textsuperscript{18}

Mr Birss’ reasoning with regards to hold-out in the FRAND debate stands out as being fairly unique. Judge Posner, for example, argues in Apple vs Motorola that the ‘purpose of the FRAND requirement is to confine the patentee’s royalty demand to the value conferred by the patent itself as distinct from the additional value – the hold-up value- conferred by the patent’s being designated as standard essential.’\textsuperscript{19} Equally, in Microsoft v Motorola, more emphasis was put on hold-up rather than on hold-out: ‘When the standard becomes widely used, the holders of SEPs obtain substantial leverage to demand more than the value of their specific patented technology.’\textsuperscript{20} In Ericsson v D-Link again, the judge argued that ‘the patentee’s royalty must be premised on the value of the patented feature, not any value added by the standard’s adoption of the patented technology.’\textsuperscript{21}

By taking the position that a Court can determine a FRAND royalty rate and hence resolve hold-up, the Court implicitly states that its FRAND rate is able to adequately reflect the validity, essentiality and infringement of SEPs at a global level. Given the territorial nature of patent law, it is difficult to agree that the Unwired Planet vs Huawei Court has succeeded in finding a fully satisfactory answer on how to determine such a global royalty, alongside all other terms of a FRAND licence.

The FRAND royalty rate is based on portfolio licensing

\textsuperscript{17} Unwired Planet vs Huawei, Paragraph 92;  
\textsuperscript{18} Unwired Planet vs Huawei, Paragraph 156  
\textsuperscript{19} Apple, Inc. v. Motorola, Inc., [2012] WL 1959560, p.18  
\textsuperscript{20} Microsoft Corp. v. Motorola, Inc., [2013] No. C10-1823JLR, p. 10  
\textsuperscript{21} Ericsson, Inc. v. D-Link Systems, Inc., [2014], No. 10-CV-0473, p.43
It is beyond the scope of this paper to discuss at length the FRAND royalty rate calculations undertaken in the Unwired Planet vs Huawei case. For reasons of brevity this paper limits itself to discussing the FRAND royalty rate determination from the perspective of portfolio licensing.

The fact that patents can be invalidated is neglected in this judgment. According to Justice Birss, the FRAND obligation applies to patent families. ‘As soon as patent portfolios are being licensed it is not straightforward to say that a demand for payment for a portfolio licence is for payment for a given patent in the portfolio.’ Considering this line of thought of the Court, the judge gives clear preference to the much-debated portfolio licensing.

Patents are probabilistic rights. If a patent is found to be invalid, it will be invalid ab initio and an invalid patent cannot be infringed and hence does not require a licence. In Unwired Planet, the Court decided to take a global perspective on patents, and therefore, drastically reduced the ability of Courts in other jurisdictions to verify the validity, essentiality and infringement of their own national patent rights. This removes the licensee of its entitlement to seek recourse to invalidation procedures as a means to counter licensing requests.

The FRAND royalty rate determination in this judgment is also unable to adequately capture the fact that patents that are declared to be SEPs, are not necessarily SEPs. Even though the court noted that widespread over-declaration of SEPs requires any appropriate methodology for calculating FRAND to go beyond the staking of patents in SDOs registers or in the ETSI database, the Court was in this study’s opinion not able to overcome this issue.

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22 Unwired Planet vs Huawei, Paragraph 207, 597, 599
23 Unwired Planet vs Huawei, Paragraph 546
24 Unwired Planet vs Huawei, Paragraph 531
28 Unwired Planet vs Huawei, Paragraph 200
In court, each party presented its methodology for determining the total number of essential patents to the relevant standard(s). Unwired Planet presented the Revised Modified Numeric Proportionality Approach (Revised MNPA), and Huawei introduced the Huawei Patent Analysis (HPA).

The Revised MNPA method extracts all declared SEPs in the ETSI IPR database, restricts the dataset to relevant SEPs, then groups them into families, and removes families without a pending or issued US or EP patent. The Revised MNPA methodology further limits the dataset by filtering out all patents with a priority date after 31 December 2008, and groups the remaining families in handset or infrastructure patents. Lastly, the method applies an essentiality filter to account for the issue of over-declaration.\textsuperscript{29}

The rate of the essentiality filter was established by reviewing two sets of patents for essentiality previously identified by the HPA as essential.\textsuperscript{30} Through 5-6 hours reviews, the proportion of essential patents in the two samples was concluded to 16.6\% and 9.4\%.\textsuperscript{31}

The HPA method creates a de-duplicated list of declared essential patent families from the ETSI database and the Korean Telecommunications Technology Association database. The list reflects families including “at least one issued and non-expired patent and an English or Chinese language member” and divided into groups based on relevant standards. Lastly, patents from the remaining families are reviewed for essentiality through 30 minutes long reviews, following the logic that if there is no clear reason to rule out the patents as being essential then a family is considered to be essential.\textsuperscript{32}

The Court noted that the HPA method was initially intended for an arbitration process between Ericsson and Huawei, and in that case, acted as a filter used to screen out non-SEPs rather than to establish true essentiality.\textsuperscript{33} The Court also noted that the 5-6 hour analyses conducted in the

\textsuperscript{29} Unwired Planet vs Huawei, Paragraph 274
\textsuperscript{30} Unwired Planet vs Huawei, Paragraph 333
\textsuperscript{31} Unwired Planet used the highest value (16.6 \%) in their revised MNPA-method.
\textsuperscript{32} Unwired Planet vs Huawei, Paragraph 286
\textsuperscript{33} Unwired Planet vs Huawei, Paragraph 361
Revised MNPA were likely to generate a number closer to the true figure of SEPs, rather than the 30 min reviews undertaken in the HPA approach.\textsuperscript{34}

In the end, however, the Court concluded that both methods produced the wrong answer. It was held that the Revised MNPA overstated the value of Unwired Planet’s SEP portfolio and that the HPA understates the value of the same portfolio.\textsuperscript{35} As an example, the HPA method identified 1812 patents essential to handset 4G, whereas the corresponding number generated through the Revised MNPA approach was 355.\textsuperscript{36}

To come to a final conclusion, Justice Birss instead reverted to subjective evaluation of the evidence, concluding that both values were out by about a factor of two.\textsuperscript{37} To use an example, the Court found that there were 800 “true” LTE (4G technology) SEP families, by taking a middle figure between Unwired Planet’s estimate and Huawei’s estimate. However, in both Unwired Planet’s and Huawei’s analysis the starting point of the review was 6619 and 7077 families declared to the LTE standard, respectively.\textsuperscript{38} Taking a conservative approach, Justice Birss estimated that only $800 / 6619 = 12\%$ of declared LTE patents to be truly essential. For the remaining standards, the Court concluded that adjusting the figures derived from the HPA in the same way as was done for 4G, was appropriate for calculating the pool of SEPs.\textsuperscript{39}

These figures reflect a compromise between the parties’ respective opinion, rather than a quantitative analysis. It reflects what was held to be a fair and appropriate number for the pool of SEPs. The numbers arguably are the sole result of Justice Birss subjective estimation of what is an appropriate adjustment.

The Court recognised that hinging the FRAND royalty rate on SEPs declarations can further promote the over declarations of patents as being essential to a standard,\textsuperscript{40} but for practical

\textsuperscript{34} Unwired Planet vs Huawei, Paragraph 362
\textsuperscript{35} Unwired Planet vs Huawei, Paragraph 807
\textsuperscript{36} Unwired Planet vs Huawei, Paragraph 377
\textsuperscript{37} Unwired Planet International Ltd v Huawei Technologies Co. Ltd & Anor [2017] EWHC 711 at *83 [377] (Pat. Ct.) (Eng.).
\textsuperscript{38} Unwired Planet vs Huawei, Paragraph 278, 288
\textsuperscript{39} More specifically, as $800/1812 = 44\%$ - the court factored the remaining figures from the HPA by 0.44 to generate final standard-essential patent numbers for each standard.
\textsuperscript{40} Unwired Planet vs Huawei, Paragraph 182, 202
reasons one can consider this to be an unavoidable side effect. Even ‘if one of the declared but not relevant SEPs in a portfolio was revoked, leaving relevant SEPs behind, it would not change the benchmark royalty rate.⁴¹… However, such situation could possibly be circumvented by adding some language in the contract. Hence, this is not an inherent shortcoming of multijurisdictional portfolio licensing.⁴²

It was furthermore accepted that the license will be on all declared patents, even though the royalty was set only with reference to the relevant SEPs in the U.K., which was the only part of the portfolio which was discussed with greater detail in the case. This is particularly problematic as essentiality checks can only be undertaken through Court.

Another more widely criticised inconsistency consists of the fact that the ‘SEPs declaration counting’ technique was only reflected when determining the total number of SEPs, but not when determining the value of Unwired Planet’s UK’s SEPs. Justice Birss total number of relevant SEPs is mainly explained by the fact that in this instance he also sought a compromise between the two very different positions submitted by the parties to the Case (Unwired advocated that there were 355 LTE SEPs whereas Huawei said that there were 1812). This can distort the very basic meaning of the FRAND royalty rate for a given SEP.

Last but not least, it is worthwhile mentioning that this judgment did not think that the Non-Discrimination limb of FRAND required Huawei to be offered the much lower licensing rate Samsung had paid to Unwired Planet. Equally, the license between Unwired Planet and Lenovo, and the license between Ericsson and Huawei were considered not to be comparable. In future licensing negotiations this may further incentivise the licensor to opt for a litigation in the U.K. as it may not wish to be bound by potentially lower licensing rates it had historically obtained.

Sanctioning a Global FRAND Licensing Rate with a Permanent Injunction in England and Wales

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⁴¹ Unwired Planet vs Huawei, Paragraph 531
⁴² Unwired Planet vs Huawei, Paragraph 532
Efficiency gains are a key motivator for this judgment. This is why Justice Birss prefers a worldwide licensing rate over a county specific one. In the Court’s judgment asking a global licensee to take a global license is justified, also in circumstances when the portfolio could not be verified with respect to its validity and essentiality. Even if there were SEPs that would be found to be invalid and not essential, this would still be FRAND and not inherently anti-competitive and could be circumvented through contractual arrangements.\textsuperscript{43} It is contended that any such contractual arrangements would only be able to manage a situation, whereby a minor fraction of the portfolio is found invalid and/or not standard essential.

Huawei’s contention that ‘the multi-jurisdictional bundling and also the bundling of SEPs with non-SEPs which took place in Unwired Planet’s April 2014 offer, pose an obvious and real threat of distorting competition’\textsuperscript{44} was equally dismissed as an argument. Whilst it was held that the patent owner holds a dominant position in the market, because the market undertaking is covered by the FRAND contract, which was said to weaken the SEP owner’s dominant position, it was found that the threat of an injunction was not contrary to competition law.\textsuperscript{45}

According to Justice Birss a global licence also does not need to include SEPs from all over the globe. It is enough if the SEPs have satisfactory country coverage, so to justify a global licensing contract.\textsuperscript{46} It was found that such a satisfactory coverage is given in Unwired Planet’s case, where the portfolio covered 42 out of 195 countries in the world. The judge argued that Unwired Planet’s portfolio is large enough in scope and coverage for a worldwide license and that it would be simply unpractical to ‘fight over every patent.’\textsuperscript{47}

That there are case decisions pending on the same matter in other jurisdictions, and that some of these patents may be revoked in other countries, makes no material difference to the Judge’s ultimate conclusion that only a worldwide license would be FRAND between the parties.\textsuperscript{48}

\textsuperscript{43} Unwired Planet vs Huawei, Paragraph 549, 552
\textsuperscript{44} Unwired Planet vs Huawei, Paragraph 527
\textsuperscript{45} Unwired Planet vs Huawei, Paragraph 670
\textsuperscript{46} Unwired Planet vs Huawei, Paragraph 535, 538
\textsuperscript{47} Unwired Planet vs Huawei, Paragraph 542
\textsuperscript{48} Unwired Planet vs Huawei, Paragraph 572
Such worldwide license can be sanctioned by an injunction in the U.K., even if the licensor only has a very small patent portfolio in the U.K. To what extent this can pay adequate justice to the ‘forum non-conveniens’ doctrine may possibly be further explored. This doctrine by background, provides the basis for the discretionary exercise of jurisdiction by English Courts in private international law disputes. After all, Unwired Planet only held a small fraction of its portfolio in the U.K. In conclusion, the Court found that a willing licensee would need to accept such global licensing rate as FRAND, or accept an injunction in England and Wales.

**Appeal of the Judgment**

Huawei appealed this decision on various grounds, and it particularly argued that the judge set a global rate where 64% of the money payable relates to Chinese patents owned by Unwired Planet. It also argued that the Court ignored that there was ongoing litigation in relation to the patents in Germany and in China. Also, there were some countries where Unwired Planet had no relevant patents at all.

The judgement also criticised that an implementer does not have an obligation to pay licence fees for patents which have been granted in error without there being any opportunity to terminate the licence that contains that obligation. These and other factors taken together, may mean that this judgment did not give enough consideration to proportionality and wrongly presumes infringement and validity of at least some SEPs in territories outside the U.K. The appeal made by Huawei was dismissed and the Court of Appeal by and large reconfirmed the judgment of Mr Justice Birss. Importantly, it upheld that willing and reasonable parties would agree on a global FRAND licensing rate.

The one point on which the Court of Appeal disagreed with Mr. Justice Birss was that there could be a range of FRAND rates and terms in any given set of circumstances. This leaves open the possibility that in other cases both a global and a UK licence might be FRAND.

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50 Unwired Planet vs Huawei, [2018] EWCA Civ 2344, Paragraph 19

51 Appeal. Unwired Planet vs Huawei, Paragraph 121
A key characteristic of a PAE is that it is set-up to have a strategic advantage in licensing negotiations. A PAE would not usually be countersued for patent infringement as it has no product that can be targeted. This enables a patent assertion entity to assert its patents without the risk of an injunction affecting its business. Often, it seeks to license IP in markets in which it does not participate. Its primary goal is to obtain a maximum number of licensing contracts at an attractive rate. A PAE extracts economic worth from its patents through a third party’s business operations. This allows it to establish a relationship between the operating company’s future and historic cash flows and its IP portfolio.

Scholars have argued that PAEs’ strategies often seek to leverage ‘Locked-in-mechanisms.’ In the context of SEPs, these can be characterised as tactics that try to take advantage of the fact that a downstream innovator had to make important investments based on the standard. Locked-in effects can be understood from a Williamson transaction costs theory, which argues that ‘one party to a transaction has made transaction specific investments which cannot be deployed to new uses without loss of productive value.’ Paired with strategic behaviour, this can lead to the exploitation of the unearned market power that patentees may gain from the incorporation of their patents into an industry standards. A downstream innovator that needs to assure network access and interoperability will not be in a position to opt-out of the standard. A switch to an alternative standard will only be possible if all other market participants equally agree to switch to the other standard; a highly unrealistic and extremely costly scenario. Patents that cover technology used in such a peculiar market scenario are prone to anti-competitive usage as they allow to associate the temporary monopoly right conferred by a patent with a market context, where it is impossible to opt-out or invent around the patented technology.

54 Henkel, J. and Reitzig, M. G., Patent Trolls, the Sustainability of ‘Locking-in-to-Extort’ Strategies, and Implications for Innovating Firms (December 17, 2010). Available at SSRN: https://ssrn.com/abstract=985602 or http://dx.doi.org/10.2139/ssrn.985602
In such a market context the downstream innovator, which infringes on the PAE’s SEPs finds itself in a situation in which it has to compensate the PAE for past, current and future infringement and in which its exit option is determined by current switching costs, the lost profits in case that it would cease production and the Court’s ability to issue an injunction. These considerations affect its bargaining power in future licensing negotiations. A PAE’s technology can in these lock-in situations become very valuable.

Both the downstream innovator and the PAE face risks in licensing negotiations. The key risk for the PAE is that it can lose the core assets of its business. This can happen if its SEPs are declared non-essential or found invalid or partially invalid through a Court. In this case, it not only loses its business opportunities with this downstream innovator, but also with all other operating companies which may otherwise be expected to have to pay for its claim that they are infringing on its patents. Hence, in search for countering PAE licensing requests, downstream innovators often turn to patent invalidation proceedings as a means to restore parity in licensing negotiations.

Equally, the downstream innovator has risks. If it infringes on valid and essential SEPs and refuses to pay a FRAND license, it will be faced with an injunction, which means it loses the opportunity to do business in the said jurisdiction. The PAE may also have to pay damages, however in the U.K., these are not comparable to the type of damage awards one may expect in the U.S.A., which foresees for punitive damages.

Neither the PAE nor the downstream innovator exist in isolation and the licensing transaction between the two parties can affect the entire licensing market. Both parties are keen on setting a precedent they can refer to in potential future negotiations. Equally, other market participants will try to observe the transaction in order to understand the effects on their business, provided it is not obscured through a non-disclosure agreement, which is most often the case.

Scalability matters for both the PAE and the downstream innovator. The PAE will usually not just approach one single company, but seek to obtain a licensing rate from a host of similar companies for the same portfolio, ideally while maintaining a very similar strategy. This allows

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a PAE to maximise revenues while minimising costs, an undertaking every business aims to achieve.

Similarly, the downstream innovator, which settles with a PAE will experience scalable effects. Agreeing to a licensing request with a PAE signals to the market that it is prepared to pay for a licensing request from a PAE at a given rate. If such practices become the norm, then a range of other PAE’s or other licensors may decide to approach a company with a licensing request. This may trigger additional licensing requests, legitimate or not, which will affect its costs of doing business, its profitability and its ability to remain competitive in the market. These signalling effects also impact the licensing market as a whole as other PAEs as well as other operating companies may follow suit; in light of the established precedent. For example, after the patent licensing platform ‘Avanci’ settled with BMW on a licensing rate for its 2G, 3G and 4G essential patents, it announced that it had established the licensing rate for its portfolio within the context of the automotive industry. Following that, Audi, Porsche and a month later also Volkswagen agreed on a global license for connected car patents with the aggregator.

Potential Effects of the Unwired Planet vs Huawei Decision on Future Licensing Negotiations

The Unwired Planet vs Huawei judgment bears the potential to affect the licensing relationship between PAE’s and downstream innovators at a global level as the Court has set a global FRAND licensing rate. While it recognises the dysfunctionality of global licensing, it ultimately is not able to resolve it due to the territorial nature of the patent system. It has entitled a PAE to obtain a global FRAND licensing rate, primarily on the grounds of information that


falls squarely into its jurisdictional competence but has not assessed the quality of the foreign patents upon which most of the global royalties are based.

According to the judgment the locked-in mechanisms previously described can be offset by the fact that a PAE would not be able to obtain more than a global FRAND licensing rate set by an English Court. This argument implies that the Court has succeeded in coming to grips with the probabilistic nature of patent rights. Additionally, the Unwired Planet vs Huawei judgment deprives the licensee of its ability to invalidate extraterritorial patents or verify if they are actually infringed.

In this way, it risks equalling intangible property rights to tangible property rights and this may be fairly remote from a Posnerian conceptualization of intellectual property rights as a temporary and restrictive property right. The dilemma is illustrated by the recent TCL vs Ericsson decision, where Judge Selna studied a very similar problem for a very similar patent portfolio and came to a distinctly different conclusion both of what the FRAND rate is and what the number of truly essential patents is.

It is recognised that the failure to adequately come to grips with the uncertain property features of intellectual property prevails at present in many judgments. This can lead to an unsatisfactory solution when decisions are taken without having a comprehensive knowledge of the subject-matter. In this specific judgment however, these undesired effects are exponentially enhanced as the Judge opts for a global FRAND licensing rate. The Court was ultimately obliged to make a decision on the basis of incomplete information. In future licensing negotiations that may follow suit, pronouncements on licensing rates and conditions may be taken in a somewhat blind manner.

To make a fully enlightened decision the Court, would need to have perfect information on extraterritorial SEPs. To avoid that costs of doing so become a knock out criteria for Small and Medium Sized Enterprises (SMEs), any other court seeking to establish a licensing rate in the

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62 TCL vs Ericsson, p. 1
same manner would need to be able to do so in a cost-efficient manner. This can only be done through the creation of an international patent court.

Under a framework as set by this Court, the perceptions of risk and return rates for both a PAE and a downstream innovator can shift. Hall and Ziedonis already criticise the fact that invalidation procedures can take invariably longer than the issuance of an injunction. As a result a downstream innovator would rather prefer to take a license than face an injunction, even if the validity of the underlying asset is uncertain. Such a risk is increased if a licensee is not in an adequate position to verify the validity, infringement and essentiality of SEPs in a portfolio, be they territorial or extraterritorial in nature.

A global FRAND licensing rate set by a national Court makes the validity, essentiality and infringement of a global royalty rate for SEPs dependent on the opinion of the judiciary of England and Wales. Under a global FRAND rate determined by a national Court in this manner a PAE does not expose all of its SEPs to the same risk. While UK SEPs will be subject to particular scrutiny, extraterritorial SEPs may be so to a much lesser extent. Within a given portfolio the SEPs held in the U.K. can increase in value in comparison to those SEPs which are outside the UK scope. The judicial framework of one nation can in this way take an influence on the economic worth of a PAE’s global SEPs portfolio. While it may certainly not be in the Court’s intention to give way to portfolios that are primarily structured around a few strong British patents, this may be one of its practical consequences.

From the PAE’s perspective these peculiar circumstances give way to a range of strategies. A PAE’s reduced exposure to risk enhances its credibility among potential investors, which may help it to win further capital to pursue patent monetization activities. It may also mean that it is less under pressure to structure a global SEPs portfolio with strong SEPs throughout all jurisdictions. Such bundling of assets can lead to portfolios where a few ‘star’ SEPs are combined with SEPs that may only read on minor features of the standard, or which may be inexistent all together. The judgment may also reduce the costs a PAE would normally have to substantiate its licensing requests through claim charts.

The downstream innovator again has either the option to accept a global FRAND licensing rate set by a Court, which may not adequately encapsulate the extraterritorial nature of SEPs, or

face a disruption of its business operations in the U.K. Under the Unwired Planet vs Huawei decision, it may also be hampered in its the ability to counter a global licensing request with multi-jurisdictional patent invalidation proceedings. Once the UK Court has set the global rate, even if further invalidity proceedings do occur globally, the costs of these proceedings is likely to be larger than any marginal reduction in royalty rate for that country. This further weakens its bargaining power in licensing negotiations.

When lack of information influences the decision to take a license, the decision may be primarily driven with the knowledge in mind that a national Court is incapable to adequately assess the validity, essentiality and infringement of a global SEPs portfolio. How the licensing request relates to the infringement value of a SEPs portfolio may be less relevant. Such a decision-making process may lead to FRAND licensing payments, which may be decoupled from the FRAND value the portfolio has in the context of the alleged infringer’s business. Even though not pertaining to SEPs, an illustrative example is provided by the patent lawsuit of NTP vs RIM. In light of an impending permanent injunction, Research in Motion agreed to an irrevocable settlement fee of USD 612.5 Million, even though at that time the United States Patent and Trademark Office (USPTO) had already preliminarily—but not yet finally—invalidated all five of the patents around which the case was centred.64

Other factors which will include the decision-making process are the downstream innovator’s outside options, its ability to refrain from using the standard, past investments and future expected earnings. These factors will be weighed against potential risks associated with a permanent injunction and it will be sought to determine how costs potentially associated with an injunction relate to the requested global FRAND rate.

The permanent injunction that sanctions the global FRAND licensing rate forces the downstream innovator to carefully weigh the importance it attributes to its market presence in the U.K. against the potential global FRAND rate a Court may determine. Furthermore, this may dis-incentivise companies from coming to the UK if that move exposes them to worldwide licence demands from PAEs. In light of the fact that a global FRAND rate can be sanctioned with a permanent injunction in the U.K., the licensing negotiation can be shaped by how much

the downstream innovator values its presence in the U.K. and whether its U.K. operations also affect other markets.

When Qualcomm, for example, obtained a permanent injunction against Apple in the Munich District Court for the infringement of a (non-standard essential) patent reading on technology that allows to extend battery life in smartphones in December 2018, Apple was presented with the choice to either cease the sale, offer for sale and import of infringing iPhones\textsuperscript{65} or switch provider. The ultimate loser was its current chip provider Intel, which lost its chip market linked to the infringing phones as Apple switch to Qualcomm as its chip provider.\textsuperscript{66}

This argument points to a more nuanced academic discussion than the one advanced by Lemley and Shapiro in 2006.\textsuperscript{67} While the authors contend that an injunction categorically tilts the bargaining power in licensing negotiations, this study does not argue that. Rather, the study is concerned that a licensing transaction which forces a choice between a rate for unverifiable extraterritorial SEPs or an injunction in the U.K. can tilt the bargaining power.

In licensing negotiations that precede formal Court intervention, a decision such as that pronounced in Unwired Planet vs Huawei can influence future SEPs licensing negotiations between a PAE and a downstream innovator. Both parties negotiate strategically and make decisions based on their expected risk and return. These decisions are taken in light of the overarching judicial reasoning in which they operate in.

In light of this decision, a downstream innovator may in such circumstances carefully consider whether to expose its global SEPs licensing costs to the scrutiny of the British Courts. While transactions costs decrease, firms will find it difficult to negotiate different rates in other jurisdictions, in particular for those SEPs in the portfolio which may not be as strong or which may for example only read on minor features of the standard. It also does not allow to factor in ongoing legal proceedings in other countries.


\textsuperscript{66} Porter Jon. Apple’s workaround to Qualcomm patent woes in Germany is to use Qualcomm chips. 14.2.2019. \url{https://www.theverge.com/2019/2/14/18224598/apple-qualcomm-patent-dispute-germany-intel-modems}

That none of this appears to be hypothetical is illustrated by recent case law. In TQ Delta vs Zyxel, the defendant declared it would rather accept an injunction and exit the U.K. market than take a global FRAND rate determined by a British Court.\(^{68}\) Equally, Conversant, another PAE, filed law suits against Huawei and ZTE in the U.K.; so to obtain a global FRAND license under similar conditions to those set under Unwired Planet vs Huawei.\(^{69}\)

In the highly interconnected ICT sector, the number of firms that may be exposed to such strategies may significantly increase and the described mechanisms significantly scale-up.\(^{70}\) The PAE’s business model may be made invariably more attractive than that of continuing to manufacture products.

**The Need to Move Towards International Patent Enforcement**

This decision points to the dilemma that persists between the international and the national patent system and underlines the dire need for multilateral solutions. While Justice Birss is right to pointing out the shortcomings of country per country patent transactions, his Court does not have the full ability to resolve this issue. A national Court is not entitled to invalidate foreign patents or verify their essentiality, as least where their validity and essentiality is challenged. The impact of one single national Court on minimising transactions costs associated with global FRAND licensing rates is offset by the very nature of the international IP architecture. Its incapacity to pronounce a global FRAND licensing rate is given by its lack of international authority. For example, it is unclear if a global FRAND license issued by a national Court must be recognised in other countries. Against this background, the determination of a global FRAND rate should be left to an international body, which should be established through an international treaty.\(^{71}\)


\(^{69}\) Conversant Wireless Licensing S.A.R.L v Huawei Technologies Co. Ltd, ZTE Corporation and Ors [2019] EWCA Civ 38


An international organisation would need to be established that could deal with global patent enforcement. In that respect, two organisations could serve as a model. For global patent protection, the International Bureau of the World Intellectual Property Organization (WIPO) has been doing pioneering work. Through the Patent Cooperation Treaty (PCT), which it administers, it has become possible to obtain patent protection in 152 countries in one single undertaking. The one-stop shop design of the PCT has allowed to respect national sovereignty, while at the same offering patent protection in a swift, uncomplicated and relatively affordable manner. The transaction costs associated with filing patents on a country per country basis were significantly reduced. This institution was an important instrument to enhance the integration of international markets.

For global patent enforcement an organisation designed in a similar fashion could be created. At present, the international IP system is equipped with the ability to file patents internationally in a swift manner, but not to enforce patents in an equally swift manner. Possibly some truly international patent would at some point need to be created to allow for that, but maybe one could also think of designing the patent system in a such a way that international enforcement could work through a mechanism which does not affect national sovereignty and which would allow, just like the PCT, to only undertake formality checks, but then leave it to national Courts to enforce patents in line with their national laws. Such a one-stop shop could facilitate international trade. As a single-entry point that would allow to determine a FRAND rate at the global level, it could gather information on validity, essentiality and infringement from national Courts and then use such information to offer a global FRAND licensing rate. This would be a significant improvement of efficiency, while at the same time leaving it to national Courts to determine the validity, essentiality and infringement of patents. Additionally, it could collect the information that national Courts submit and use that information to determine a global FRAND licensing rate. In this way, a global FRAND licensing rate could be calculated on the grounds of enhanced information on the subject-matter.

Another route could be to follow the European example. At the European level, efforts to establish a pan-European Patent Court have also been under way for decades and could also serve as blueprint for international patent enforcement. The Unified Patent Court (UPC) will be a joint Court for the Contracting Members to the Unified Patent Court Agreement (UPCA)
and will be part of their judicial system. It is aimed for the UPC to have exclusive competence with regard to European patents and European patents with unitary effect. This will however be subject to a transition period. The UPC will be in a position to determine patent infringement and to invalidate patents granted in the territories of its Member States. This will be made possible through one single Court ruling, which can be directly applied in the contracting parties to the UPCA.

Through the establishment of a pan-European Patent Court, Europeans are trying to provide a patent enforcement environment that better corresponds to the novel market structure presented by pan-European integration. In doing so, some attention has been paid to the possibility that such a Court may spur PAE activities. In particular, it was argued that patent quality should be enhanced, in order to avoid litigation over potentially inexistent subject-matter.

Both, WIPO and the UPC inspire intergovernmental treaty making that could lead to an international body that could enable the enforcement of patents at the international level in a more efficient manner. The advantage of following WIPO’s PCT example is that it would not require the creation of a global patent. On the other hand, one could also pursue the UPC route, which is hinged on a unitary patent approach. Such a tactic would certainly lead much faster to the integration of international patent enforcement, but it would probably also be much more difficult to obtain consensus for such a globally recognised unitary patent. Further research regarding the feasibility of setting a novel global architecture for transnational patent enforcement should be encouraged. The current state-of-play has left the international

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technology community with a half-heartedly realised international patent system. While it is possible to obtain international patent protection in a fairly uncomplicated manner, no such equivalence exists for international patent enforcement. As the Westphalian state order continues to define international patent litigation, it risks to regulate a world order of the past. The borderless world, which is afforded by those very information communication technologies the patent system is at many instances supposed to promote, requires a more stringent enforcement approach.

Anything else may have severe adverse anticompetitive effects and trigger undesired market practices. In order to achieve the necessary political will to move technology regulation into the 21st century, it will be necessary to reach out beyond the narrow circle of patent experts. The need to establish an International Patent Court needs to be established from both an IP and a competition perspective. In the absence of doing so, there is a risk that highly sophisticated competition judgments are weakened by their inability to adequately reflect the subject matter of their decision. The game changing role that both 5G and the Internet of Things will play justifies such a novel institution.