

The last year has been an exciting year for FRAND. The *TCL v Ericsson*¹ verdict was set aside. The FTC's decision against Qualcomm was also lifted pending appeal. Germany's Supreme Court has overturned the *Sisvel v Haier* decision, swinging the pendulum in Germany more in favour of patent owners. But the most keenly awaited event is the UK Supreme Court's decision in *Unwired Planet*². In largely upholding Mr Justice Birss' decision, the Court of Appeal had confirmed the UK court as a venue which can positively assist parties to resolve their FRAND disputes. Now, the Supreme Court will review that verdict.

Unwired Planet is being watched with interest because until now there has been no single venue that could solve the issue that lies at the heart of every dispute between SEP owners and implementers: how much should be paid for a license to the SEP portfolio? In the past, the challenge (and much of the fun) for litigators lay in trying out different means to apply pressure to the other side to return to the negotiation table. We experimented with all sorts of courts, tribunals and regulators: each side seeking a venue that would give them an edge. But for a decade no court with any sense wanted to touch the question of "how much". Most judges took the position that FRAND was a commercial matter. Judges could decide whether a patent was infringed, or invalid. They could not answer what was FRAND.

As economists wrote more about the subject, some common views emerged. Today, it isn't just economists who talk about "top down", "comparable licences", "age-normalised citations" and "contributions": many lawyers have an understanding of what these terms mean and how they can be used to model³ FRAND, even if we passionately disagree about which should be used. The economists' papers and the debates around them have created to a common toolbox, and it is this toolbox which has made it possible for courts today to determine what is FRAND.

¹ <https://www.iam-media.com/dissecting-tcl-v-ericsson-what-went-wrong>

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<https://www.twobirds.com/en/news/articles/2018/uk/appeal-decision-in-unwired-planet>

³ I use the term "model" rather than calculate, because these methods use proxies for the value of a portfolio, rather than direct measures

The *Unwired Planet* decision is not the first time that a tribunal has adjudicated the global value of a portfolio of patents. Nokia, Samsung, LGE, Huawei, Ericsson and Interdigital have all undertaken consensual portfolio rate-setting arbitrations. Mark A. Lemley & Carl Shapiro proposed one possible mechanism of arbitration in 2013: "last offer", or "baseball" arbitration⁴. Prof Jorge Contreras⁵ proposes a more conventional arbitration system where the arbitrator can determine the amount.

The problem with arbitration until now is that it requires consent. In the typical SEP dispute (whatever the parties may say outwardly) one party may not want FRAND to be determined. So he will not consent to arbitration. In a paper to be published next year in *JUVE*, Lord Justice Arnold will set out how arbitration could become a much more widespread tool. But in the meantime, *Unwired Planet* is the first time that a court has determined FRAND in circumstances where one party does not consent. In doing so, it has created a dispute resolution tool which obviates the need for expensive multi-jurisdictional patent litigation. That's good news for the industry, even if it is not such good news for patent litigators.

The first-instance decision can be read about in greater detail in other articles⁶, as can the appeal⁷. Two significant points that have emerged. They are as follows:

1 Jurisdiction

The problem to date has been that patents are national sovereign rights. Most national courts accept that they cannot determine validity of a foreign patent, even if

⁴ A Simple Approach to Setting Reasonable Royalties for Standard-Essential Patents, 28 *BERKELEY TECH.L.J.*1135, 1138 (2013). Each party makes an offer and the arbitrators awards the offer they think is closest to frand. This acts as an incentive on each side to be as reasonable as possible, so the offers will converge.

⁵ GLOBAL RATE-SETTING: A SOLUTION FOR STANDARDS-ESSENTIAL PATENTS? "3 August"2018 (available on SSRN)

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<https://www.twobirds.com/en/news/articles/2017/uk/unwired-planet-v-huawei-english-high-court-sets-frand-royalty-rate>

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<https://www.twobirds.com/en/news/articles/2018/uk/appeal-decision-in-unwired-planet>

they can determine infringement⁸. Setting a royalty rate for sales outside the country, it is said, is indirectly a determination of validity of foreign patents. It offends principles of comity.

The step taken in *Unwired Planet* (and upheld on appeal) is to look at the matter in a different way. The relief being sought is an injunction against sale of products in the UK: products which are infringing UK patents. That is clearly a matter for the UK courts. The implementer may raise a FRAND defence. If he does so, he must show that he has not been offered a fair, reasonable and non-discriminatory licence. If the SEP owner has a global portfolio and the implementer a global market, a fair, reasonable and non-discriminatory offer would be a global offer. If the court has sufficient evidence (good comparable licences being an example), it can determine what a fair, reasonable and non-discriminatory global offer would be. It cannot impose a global licence on those terms: the implementer remains free to decide whether to accept. If the implementer accepts, the matter ends there. If he does not, the court would go on to consider whether to enjoin infringement in the UK.

Although the decision has attracted criticism from other countries⁹, the step that the UK court has taken is actually quite a small one. All courts accept that they can determine whether a particular offer is (or is not) FRAND. Some have accepted that a FRAND offer is a global offer¹⁰. The only step that the UK court has taken is to go beyond giving a yes/no answer to the question of whether an offer is FRAND. If neither of the offers on the table are FRAND, it has determined what would be FRAND. Jurisdictionally, this is a small step. But in terms of usefulness in resolving disputes, it is a giant leap.

2 Contract law not competition law

The UK court treated the FRAND undertaking as contractually enforceable by an implementer against a patentee. Other countries (notably Germany, and the

⁸ <https://www.twobirds.com/en/news/articles/2017/uk/it-and-ip-law-bytes-july-2017/patents-jurisdiction-to-construe-us-patent>

⁹ Kluwer (NL): "...it remains to be seen whether the courts of other countries will be prepared to sit back and allow the English courts to play ringmaster on FRAND/SEP issues." Spicy IP (India): "Perhaps some part of the judgement seems to be yearning for the good old days of the British legal system and hence the grand assumption of having global jurisdiction, or maybe a colonial hangover that refuses to go away."

¹⁰ *Pioneer v Acer* 7 O 96/14 and *St Lawrence v Vodafone* 4a 073/14, *TCL v Ericsson*

CJEU in *Huawei v ZTE*¹¹) approach FRAND through the lens of competition law. A contract law approach is a significant benefit because it sidesteps a difficult hurdle in the competition law analysis: establishing whether a SEP owner is dominant.

Although the CJEU reminded us in *Huawei v ZTE*¹² that dominance was not automatic, many people mentally equate cellular SEP ownership with dominance. The theory is: SEPs are not substitutable, so there is a separate market for licences to each SEP. The SEP owner has 100% market share in that market. He is therefore dominant. The Commission's *Motorola*¹³ decision was the high-water mark of this approach. Yet we know that there are situations where this does not hold true:

- Where there are competing standards, for example, it is harder to argue that a SEP applicable to one standard confers market dominance on the SEP owner.¹⁴
- If the patent reads onto an option, and the option isn't used, the implementer may not need a licence to that SEP. (The counterargument is that because SEPs are licensed on a portfolio basis, an implementer must still take a licence to the optional SEPs because other SEPs in the portfolio read on to mandatory features).
- There also remains unresolved the issue of the SEP which can, in practice, be designed around. The implementer may be technically departing from the standard in doing so, but he is still making a marketable product.¹⁵ If an implementer can do this, can the SEP owner be dominant?

In future cases, the existence of dominance will be more effectively challenged. The assumption on which

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<https://www.twobirds.com/en/news/articles/2015/global/cjeu-rules-on-huawei-zte>

¹² *Huawei v ZTE*, ECLI:EU:C:2015:477

¹³ CASE AT.39985 - *MOTOROLA*

¹⁴ Damien Geradin, Miguel Rato, 'FRAND Commitments and EC Competition Law: A Reply to Phillippe Chappatte' (2010) 6 *European Competition Journal* 129, 167; Urska Petrovic, *Competition Law and Standard Essential Patents: A Transatlantic Perspective* (Kluwer Law International 2014) pp. 71-73 (discussing the establishment of dominance in case of SEPs).

¹⁵ *IPCom v Nokia* [2011] EWHC 1470 (Pat). IPCom's patent was found to read onto the UMTS standard. Nokia altered its handsets so that they would still work in any UMTS network, and pass all conformance tests, but they worked in a different way to the way specified in the standard. Also look out for the upcoming decision in *Philips v HTC* where Philips seeks a declaration of non-compliance with the standard after HTC adopted a similar design around.

dominance rests: that an implementer cannot enter the market without taking a licence, does not apply in practice. Many implementers operate for years, and some build quite large market shares, before they become licensed.¹⁶ Equally, the SEP owner is not free to set his own price (another test for dominance). With Courts able to determine FRAND, implementers can ask a court to determine the rate. The fact that they can do this constrains the SEP owner to license at FRAND rates. The emergence of the remedy undermines the basis of the claim on which it relies.

In future cases, we may also need to recognise that the concept of market dominance as a binary concept, in which dominance either exists or does not exist, does not translate well into SEP licensing. It may be better to recognise that in each licensing negotiation there exists a balance between the "buying power" of the implementer and the "pricing power" of the SEP owner. It may be that abuse (by either party) of a significant asymmetry in that power should still be actionable. But an assessment of whether particular conduct is abusive will need to take into account the degree of asymmetry in bargaining power. It may, for example, be abusive for a large SEP owner to put a high opening offer to a small unsophisticated new entrant, but not abusive to put the same opening offer to a large and fully-lawyered implementer.

The UK may not be alone in moving away from a competition law approach to FRAND. The US Department of Justice's "New Madison¹⁷ Approach" put forward by Assistant United States Attorney General for the Antitrust Division Makan Delrahim argues that Antitrust law should not be used as a tool to enforce FRAND commitments that patent holders unilaterally make to standard setting organizations. Those, he argues, are better enforced using contract law.¹⁸

The main advantage to the parties to litigation in recognising a contract law basis for FRAND is that it avoids all of the argument about dominance. This makes proceedings quicker and cheaper. The UK courts only need to fall back to competition law in cases where

¹⁶ In *Motorola*, Motorola complained that Apple had been using the patent alleged to confer dominance for seven years, and become the global market leader, without a licence. LGE was a major market player for 15 years before taking a license to Nokia's patents: see <https://www.reuters.com/article/us-nokia-patents-idUSKBNOOW1HJ20150616>

¹⁷ inspired by James Madison's views on the necessity for strong patent protection

¹⁸ <https://www.justice.gov/opa/speech/assistant-attorney-general-makan-delrahim-delivers-remarks-iam-s-patent-licensing>

the SEP owner is not an SSO member, and/or has not made an enforceable declaration.

Approach of other courts

The UK is not unique in advancing the determination of FRAND cases. More FRAND cases have been heard in Germany than in any other jurisdiction to date. At the time of writing we are awaiting the Federal Supreme Court's decision in *Sisvel v Haier*, which will set the bar for what an implementer must do to be considered a "willing licensee". It is also hoped it may give some clarity to the situation where a SEP owner has in his portfolio of licences one "outlier": in *Sisvel's* case it was compelled by China's NDRC to give a licence on more favourable terms to Chinese manufacturer Hisense. Does the "non-discrimination" part of FRAND now mean that everyone else can get a license on those same terms?

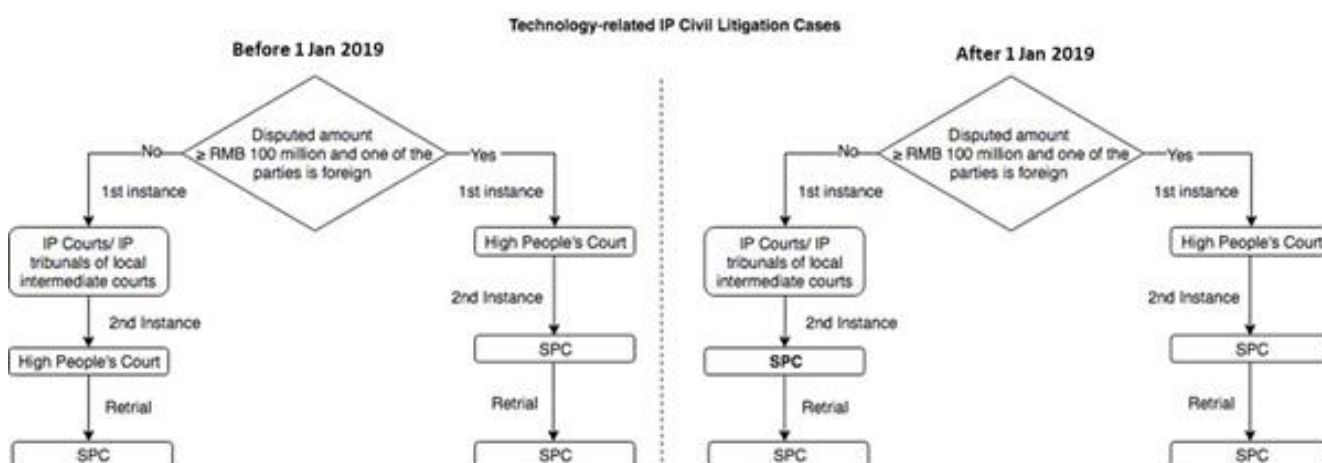
In *Nokia and Daimler* we are waiting on decisions of the Mannheim and Munich courts on whether Daimler's offer to license on the basis of the component price is acceptable for an end user product maker.

The German courts have long subscribed to the view that they can determine whether a particular offer is or is not FRAND, but they cannot determine FRAND in the abstract. However, that attitude may be softening. German judges may be prepared to adopt a quasi-mediator role. They will require parties to submit their respective global offers, anonymised comparable licences and other evidence (top down analyses, expert reports). If they believe that a global offer is close to but not FRAND, they may advise informally at the outset of a hearing, and allow the parties to reconsider their positions. If, following the chamber's guidance, a party submits a revised global offer and this is not accepted, the chamber may use that offer to determine whether or not an injunction should follow. The end result would be the same as the UK's *Unwired Planet* approach: a national injunction if an infringer declines a global license on terms that the court has found to be FRAND, but the route to get there would be a series of iterative steps.

In China, possibly in reaction to the UK Court's decisions in *Unwired Planet* and *Conversant*¹⁹ the Guangdong High Court issued some SEP Guidelines. Notably, they included the following provision, apparently allowing the court to determine global FRAND where one party did not agree.

"If either the SEP holder or the implementer seeks the adjudication of licence [terms] of patents in territories other than the jurisdiction of the place of adjudication, and the counter party does not expressly raise any objection in the litigation proceedings or if an objection is raised by the counter party, such objection is found unreasonable, [the court] can determine the royalties applicable for such other territories ."

If followed, this would go a step further than the UK, imposing a mandatory license on the implementer or SEP owner. But the status of these guidelines is unclear: shortly after their publication China consolidated its patent system and rerouted all appeals of technology-related IP cases directly to the Supreme People's Court in Beijing²⁰.



What next?

Unwired Planet is a huge advance towards an effective dispute resolution service. But there are other steps that the UK court can take to improve matters further.

1 Speed and cost

To date, portfolio determination court cases have been slow and expensive. Slow is bad: typical SEP licence durations are five years, and so a four year (and counting) rate setting process is not practicable. An expensive process is acceptable if the patent owner has a large SEP portfolio and the implementer is a giant, because the costs will still be small relative to the royalties. An expensive process is not viable if the portfolio is small and/or the implementer is small. With more participants contributing technology to SDOs, and standardised technology being implemented in a wider range of products, we increasingly need a dispute resolution mechanism that can determine FRAND quickly and cheaply.

Arbitration has managed to achieve quick resolutions. ICC FRAND arbitrations have been managed from start to finish within 18 months (and because it commonly takes six months just to set up a tribunal, this means that the substantive briefing, argument and decision were made within a year). In the last decade the UK has become one of the faster courts, but even so it has rarely been able to match the speed of FRAND arbitration. One UK SEP case (*TQ Delta v Zyxel*²¹) looked like it may get to trial within a comparable timeframe, but the timetable disappointingly slipped.

The UK's new shorter trial procedure is a further step to achieving speed. It aims to offer dispute resolution on a "commercial timescale": cases will be case managed with the aim of reaching trial within approximately 10 months of the issue of proceedings, and judgment within six weeks after that.

¹⁹ <https://www.twobirds.com/en/news/articles/2018/uk/uk-frand-home-or-away>

²⁰ <https://www.twobirds.com/en/news/articles/2018/china/life-sciences-and-healthcare-newsletter-november-2018>

²¹ Case No: HP-2017-000045

The problem with the UK's shorter trial scheme is that litigants won't necessarily get to use it. In any case, where one party wants to avoid a FRAND determination, that party will inevitably argue that the case is not suitable for the shorter trial scheme. They will argue that there is too much evidence, or too many witnesses, or that they need at least two days to cross examine their opponent's expert witness. If they succeed, then the case will fall back into the slower track. This makes the UK less competitive: when faced with a decision as to whether to bring a FRAND action in the UK (where one might get a quick and cheap procedure) or go for an injunction in Germany (where one will get a quick and cheap procedure), it is regrettably obvious which a Claimant will choose.

2 More sophisticated portfolio comparison methods

So far, the UK court (in *Unwired Planet*) and the US court (in *TCL v Ericsson*²²) have used relatively unsophisticated techniques for comparing portfolios. Portfolios are living things: they change over time. This is the reason why Mr Justice Birss, in seeking comparable licences, preferred recent licences.

Future cases may reach a better result if they use a wider range of comparable licences and adjust for changes in portfolio over time. That adjustment must account for changes in numbers of patents, in jurisdictional spread, and in weighting across different generations of technologies. This requires a number of technically challenging steps, including removing expired patents; allocating patents to the correct owner; and to each standard generation. It is not possible to tell from the ETSI database alone what size portfolio each person holds (or held at the relevant point in time). This is because the ETSI database does not include all the patents in each declared family, and does not contain the necessary bibliographic patent information to perform calculations on expiry dates or ownership.

Courts have so far²³ limited their portfolio valuation methods to a count of unique SEP families in the portfolio in question. Recognising that not all SEP families are of equal value, economists use more sophisticated proxies for value.

One proxy is forward citations, which requires a measure of the number of citations received by each patent family in the portfolio. In order to be accurate, this kind of measure requires sophisticated

“normalisation” techniques: adjusting for the age of a patent or the country that it was filed in. Age normalisation is necessary because a patent will attract forward citations over its life. Without normalising for age, an older patent might “appear” more valuable because it has had a longer time period to attract citations. Jurisdiction normalisation is necessary because a patent filed in some countries (most notably the US) will attract more citations than the same patent filed in another country. It is also necessary to eliminate “self” citations”. A “self citation” occurs where a company cites one of its own patents. Some companies have a policy of doing this, and unless corrected for it may inflate the apparent value of their portfolio. Not all citations to another patent belonging to the same company are self-citations, however. A party needs to be able to differentiate citations in a patent which arise from the examiner (which would be a genuine third party citation) from those which arise at the instigation of the patentee.

A second proxy that courts may need to consider is the SEP owner's technology contributions to standard. This was rejected in *TCL v Ericsson* with the observation that contributions are not patents, but it is relatively uncontroversial that if two parties each hold a large patent portfolio, the party who has contributed significantly to the development of the standard is likely to have the more valuable portfolio than the party who has not. Thus, as a proxy for value, contribution counting deserves consideration and may be no more inaccurate than any other proxy. It was used in *Huawei v Samsung*²⁴.

A third proxy is jurisdiction-weighted patent counting. There are two reasons behind weighting by jurisdiction. Patent departments operate to a budget, which must cover renewal fees. Portfolio managers therefore apply some intelligence in deciding how widely to file a patent. If the invention is considered particularly valuable, the department may file and maintain protection across a wide range of countries. A more peripheral invention may be maintained in only one or two countries. But also, the value of a patent family is, in part, dictated by how widely it is in force. A patent family that covers a wide range of countries will be more valuable in a global licensing negotiation than a family that covers only the United States. Consequently, some economists have started to consider jurisdiction-

²² <https://www.iam-media.com/dissecting-tcl-v-ericsson-what-went-wrong>

²³ With one exception in China: *Huawei v Samsung* see <https://www.twobirds.com/en/news/articles/2018/global/shenzhen-court-issues-written-judgment-in-huawei-v-samsung-case>

²⁴ <https://www.twobirds.com/en/news/articles/2018/global/shenzhen-court-issues-written-judgment-in-huawei-v-samsung-case>

weighted patent counting as a proxy for portfolio value²⁵.

A further factor that will add sophistication is the use of third party essentiality studies. In *Unwired Planet* and *TCL v Ericsson* the implementer commissioned a sampling exercise by Prof Ding²⁶. Prof. Ding's study is now the fifth published study into essentiality of Cellular SEPs. Others have been conducted by PA consulting²⁷, iRunway²⁸, Article One²⁹ and Fairfield³⁰. All of these exercises have been criticised: reasons include alleged bias by the reviewers, inadequate subject matter expertise or not enough time spent per patent. The difficulty of looking at only one such survey is that there is no way to test whether the criticisms have merit. If the underlying data from these studies is compared, we will see whether correlations will emerge, or whether the results are too inconsistent to be useful. If they do correlate, the combination of essentiality data with other metrics above may give a clearer picture of the value of respective cellular SEP portfolios. But to decide if these studies are useful, future courts will need to consider more than one in the abstract.

One may ask how this increased sophistication fits with a desire to make cases quicker and cheaper. Future cases will undoubtedly need patent portfolio data analysis tools which are able to take all of these factors into account and generate accurate measures for each metric for any company in the industry at any date of interest³¹. The use of data analytics software will reduce the time and cost of these steps.

Having more data points will make the judge's decision easier, not harder. It is relatively quick and easy for a judge to value a personal injury such as a broken leg, or a soft tissue neck injury, because there are so many comparable data points that he can use to reach his decision. The large amount of data leaves very little room for argument. It is harder (and therefore slower

and more expensive in litigation) to determine damages for an injury where there may be few or no comparable data points. That requires much more argument and there is greater room for conflicting expert opinion evidence.

The same will be true of setting FRAND rates: more and better data will make for quicker decisions and give less scope for argument.

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²⁵ 'Can Patent Family Size and Composition Signal Patent Value?', Centre for Research and Action for Peace (CERAP) Francois Kabore (2016), 'Testing patent value indicators on directly observed patent value - An empirical analysis of Ocean Tomo patent auctions', Research Policy, 43:3 Fischer, T., & Leidinger, J. (2014)

²⁶ Case 8:14-cv-00341-JVS-DFM Document 1889 Filed 02/22/18

²⁷ <https://www.paconsulting.com/our-experience/lte-essential-ipr-report-and-database/>

²⁸ <https://www.i-runway.com/images/pdf/iRunway%20-%20Patent%20&%20Landscape%20Analysis%20of%204G-LTE.pdf>

²⁹ http://newsletters.articleonepartners.com/news_f1317eac-ee13-5a66-d0f5-38ea99a4c1eeLTE-Standard-Essential-Patents-Now-and-in-the-Future.pdf

³⁰ <http://www.frlicense.com/wcdma1.pdf>

³¹ Currently the only tool capable of SEP portfolio analysis across time is Pattern: <https://www.twobirds.com/en/client-solutions/consulting/pattern>

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