Patent monetisation during World War FRAND

With the legal landscape surrounding SEPs shifting in many countries, it has never been more important to take a global view of patent assertion – but any cross-border litigation strategy needs careful consideration

By Michael T Renaud, James M Wodarski and Robert JL Moore

Former National Basketball Association star Jalen Rose popularised the expression "You never get what you deserve, only what you have the leverage to negotiate" – a statement that holds particularly true in the context of modern patent licensing. Where a patent owner could once expect others to pay reasonable royalties for practising innovations resulting from its R&D investment, many firms today will decline to pay anything at all unless the risk of not paying is undeniable and significant. The challenge facing patent owners is convincing prospective licensees that infringement is not efficient – that is, that the risk of failing to take out a licence outweighs the benefits of continuing without one.

Further complicating matters is the effect that globalisation has had on patent portfolio management. For some time now, patent strategy has experienced a tug eastward, away from the United States. Once the undisputed world leader in patent protection, the jurisdiction has become less hospitable to patent rights, just as other countries have become more attractive. In addition, global development has given rise to a new segment of potentially attractive targets without significant US exposure.

For these reasons, various global firms have reoriented their patent portfolios around the European Union – particularly Germany – and China, as these forums may offer more attractive venues for enforcement. As the United States transitions from deciding the bulk of patent-related issues to sharing its policy-making authority, many firms are likely to find their hard-wrought strategies for allocating IP resources upended, just as their time-tested strategies for licensing implementers have been.

These trends are particularly pronounced in the field of SEPs. Justice Birss's 2017 UK ruling in *Unwired Planet v Huawei* ((2017) EWHC 711(Pat) and 1304 (Pat)) brought to the fore simmering disagreements between and within countries as to the implications of the so-called 'FRAND commitment' – the common obligation of a participant in standard-setting to offer implementers licences on terms that are fair, reasonable and non-discriminatory.

Jurisdictions have differed significantly in their definition of this obligation, which is never spelled out in an agreement between a standard-setting organisation (SSO) and a participant. For several years, intransigent implementers have benefited from this inter-jurisdictional disagreement by forcing SEP owners to incur the high cost and risk of worldwide enforcement. Implementers are further emboldened by the belief that FRAND serves as a 'get out of jail free' card since a judicially imposed FRAND royalty rate will rarely exceed a rate agreed on without litigation.

Unwired Planet raised the prospect that the United Kingdom could decide international FRAND disputes by itself, setting worldwide FRAND rates and penalising implementers that refuse to take a worldwide licence. Recent rulings have demonstrated that major jurisdictions are unwilling to defer to the judgment of others when it comes to defining FRAND. Nevertheless, the United States, the European Union, the United Kingdom and China are each vying with one another to impose their view of this commitment on the rest of the world.

For the monetisation of significant portfolios, especially those containing SEPs, the foregoing trends call for a global perspective. The key to successful portfolio management is to maximise leverage against targets, given a finite budget. However, this is easier said than done, particularly given that single district enforcement against sophisticated targets is unlikely to yield sufficient leverage to deter efficient infringement.

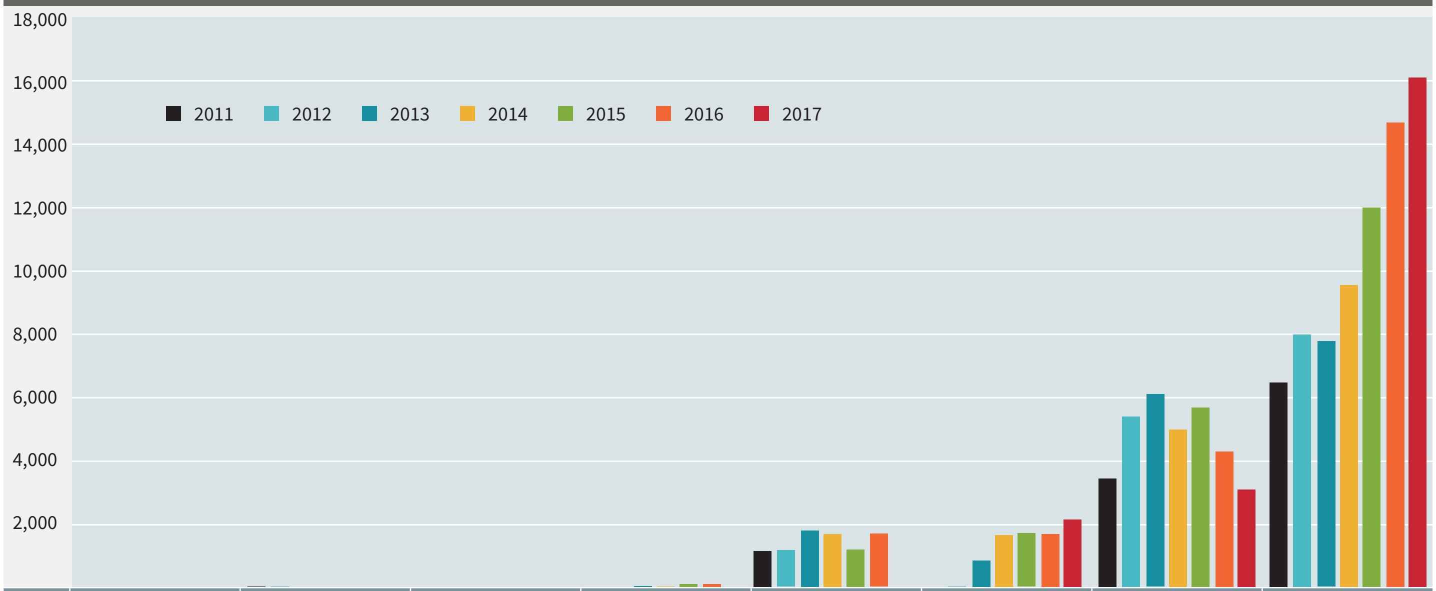
At present, an enforcement strategy that focuses on the US International Trade Commission (ITC) and Germany – provided that both forums are available – remains the recommended approach for most portfolios against global targets. Coordinated enforcement in these two jurisdictions presents the most credible threat that a recalcitrant licensee's infringing products will be excluded from significant markets. This in turn provides a compelling catalyst for the recalcitrant implementer to rethink its approach to taking a licence.

The ITC and Germany have also avoided many of the administrative and legal obstacles to enforcement that have arisen in recent years. However, this is subject to change as legal and market circumstances continue to evolve. Top patent strategists should monitor and predict developments worldwide, and allow these, as well as the nature of the portfolio and targets in question, to dictate strategy.

Global trends point east

For years, the United States has dominated the world market for patent investment, offering the most robust IP protection and enforcement mechanisms of any country.

FIGURE 1. Litigation filings by year



	US International Trade Commission	UK Patents Court	UK IP Enterprise Court	French courts	German courts	US *inter partes* review	US federal courts	Chinese courts
2011	49	92	27	192	1,217	0	3,575	6,500
2012	47	89	26	200	1,250	105	5,441	8,000
2013	63	61	17	220	1,805	806	6,098	7,800
2014	42	53	19	158	1,658	1,702	4,965	9,648
2015	34	29	25	350	1,292	1,793	5,769	12,000
2016	79	38	21	350	1,675	1,723	4,382	14,700
2017	59	26	25	0	0	2,274	3,245	16,100

However, recent years have seen the United States' position as the world's leading IP venue begin to erode. It has been widely noted that US legislative and judicial reform has made patents generally harder to enforce – at least in the district courts – and, therefore, less valuable. At the same time, jurisdictions such as Germany and China have become more attractive for investment. The number of Chinese-filed patent enforcement actions has skyrocketed over the past five years, while the number of US filings has stagnated.

Underlying these trends are the shifting strengths and weaknesses of the three major jurisdictions.

Strengths and weaknesses

United States

The United States has traditionally been the leader in patent enforcement, albeit one that seems tempted to relinquish its mantle. The predictability of the US system – which boasts the most developed body of case law in the world – helps firms to understand the nature of the US patent rights that they may acquire or license. Further, as the world's largest economy, the United States is also the world's largest damages base for many technologies. The mechanisms for enforcement in the United States expand the ranks of those who can enforce.

Unlike many other jurisdictions, the United States awards fees only in extraordinary circumstances. The rules of US civil proceedings also provide litigants with access to liberal discovery, enabling them to prove infringement by means other than inspection. Of course, US practice can be expensive, but in many cases patent owners can avoid bearing the full risk of enforcement. Attorneys commonly take engagements on a contingency or partial contingency basis, and the prodigious US investment sector makes litigation financing available for enforcement.

However, for all its institutional advantages as a forum, the United States has increasingly ceded ground. Paramount among the challenges to its position is the issue of enforceability. A compelling asset must run the gauntlet in many cases before it can be monetised. Since the America Invents Act 2011, district court enforcement will nearly always prompt petitions for *inter partes* review, which has proved to be effective for defendants and petitioners both as a means of challenging validity and as grounds for staying infringement cases.

Over the past several years, case law has provided additional grounds for invalidity and thereby significantly reduced the value of certain sectors (eg, software patents). Even patent owners that prevail on validity and infringement in district courts have experienced difficulty in collecting damages – the Supreme Court's *eBay* decision essentially eliminated the leverage of an automatic injunction while a series of appellate opinions constrained damages awards and increased the quantum of proof needed to support an award.

As an administrative agency charged with, among other things, protecting US industry by directing Customs to exclude articles that infringe US patents, the ITC has become – at least since *eBay* – the US forum in which the enforcement of patent rights results in the most leverage. The availability of exclusionary relief, the speed of the remedy and insulation from *inter partes* reviews are all benefits that the ITC enjoys over the district courts.

Although efforts to reduce the ITC's reach are ongoing, they have not yet diminished its utility. The ITC remains a compelling forum for the assertion of high-quality assets by firms with a well-thought-out execution strategy, first-rate execution and the necessary profile to meet the ITC's unique jurisdictional requirements.

Germany

Germany is the established powerhouse of European patent enforcement, handling over 70% of all European patent infringement cases. Its success rests on the integrity of the German system and the economic strength of the country. On the structural side, the key advantages of the system are its efficiency, speed and competence – making German enforcement actions an affordable, robust and speedy option, with first-instance proceedings usually being terminated in under 12 months. Invalidity and infringement are handled by different courts, reducing the workload and costs of infringement actions. The court system is run by highly experienced panels of well-qualified judges – each panel handles approximately 120 cases per year. This not only improves the predictability of outcomes, but also generates a breadth of results that helps to shape expectations and practice throughout Europe and beyond. In addition, unlike US district courts, German courts have no discretion when issuing injunctions – patent infringement results in automated injunctions, excluding any balancing of interests.

Whatever happened to the UPC?

One development that could affect patent strategy would be the establishment of the Unified Patent Court (UPC) as a viable enforcement venue. The UPC enforcement regime would begin upon ratification by 13 EU member states. Standing in the way are Brexit and a German constitutional challenge to ratification.

The United Kingdom ratified the UPC agreement in April 2018; however, the agreement limits participation in the UPC to EU member states only. Since the United Kingdom is set to depart the European Union on 29 March 2019, this calls into question whether it can remain a UPC participant under the present agreement. Adding to the uncertainty are various comments by UK officials that Brexit will signal an end to the UK acceptance of the jurisdiction of EU adjudicatory bodies over its own.

Even in ratifying the UPC agreement, the United Kingdom alluded to this stance, including in its announcement the statement: "The unique nature of the proposed court means that the United Kingdom's future relationship with the UPC will be subject to negotiation with European partners as we leave the European Union."

Upholding German ratification is a credible constitutional challenge brought by a local IP lawyer in 2017 and scheduled for hearing this year. The complaint argues, among other things, that adoption of the UPC would cede German sovereignty to an international body, triggering requirements that ratification pass the German legislature by super-majority and with a heightened quorum. The complaint also claims that, because an administrative panel would hold sway over whether UPC judges are reappointed, those judges may not be independent, as required under the German Constitution.

If the UPC is ratified by sufficient member states, it promises to draw significant consideration from patent strategists. The court's territorial coverage, including almost all EU countries, would make it a compelling venue in several instances.

For monetisation programmes seeking damages awards, the UPC would provide damages bases comparable to those in the United States. Further, in cases where obtaining an injunction in Germany does not provide adequate leverage to drive a pan-European resolution (eg, if the infringing activities are primarily in one of the member states that issue significant numbers of national patents, such as France or the United Kingdom, or if it is critical to enforce in member states not known for their robust patent enforcement mechanisms), the one-stop shop offered by the UPC would be preferable to parallel litigation in all relevant jurisdictions.

Access to proof could also drive certain monetisation programmes to the UPC. Designed as a European compromise, the UPC incorporates the civil law tradition of Germany and France and the common law tradition of the United Kingdom, as well as some US influence.

When it comes to evidence rules, this compromise creates an interesting fusion of German-based, efficiency-oriented rules in regard to burden of proof and UK-based, truth-seeking disclosure obligations and expert involvement. Ultimately, the UPC would allow more aggressive fact finding than currently permitted under the German system, while avoiding some of the costlier aspects of UK disclosure.

These differences between the German and UK systems call into question whether an amalgam would be workable. However, in cases that require discovery to prove infringement, the UPC would be an attractive venue.

Not all patent owners will have the wherewithal and sophistication to enforce in the UPC, though. Intended to handle first-instance patent infringement proceedings in roughly 12 months, the court should look to European countries other than Germany, which provides such speedy enforcement only because proceedings are much less loaded with procedural options and intermediate steps.

The UPC intends to include significant discovery and motion practice in the compressed German timeframe, inevitably requiring a larger, talented team accustomed to adjudicating complex technical and legal matters in a truncated schedule. This in turn will elevate the cost of litigation – perhaps the biggest drawback of the UPC system.

German injunctions also carry weight beyond Germany's borders due to the crucial importance of access to the German market. As such, German filings are a key tool for patent owners to motivate pan-European settlements.

The relative weaknesses of the German system are linked to its efficiency; means of discovery are contained, so that an infringer's best defence is to prevent the leakage of technical information concerning the allegedly infringing product or service. In addition, damages awarded by German courts are modest compared to US standards; therefore, true monetary compensation typically happens outside court proceedings as part of a global or pan-European settlement, using the German injunction as a driving force.

China

China's progress in the global patent landscape has also been impressive. Just 15 years ago, the effectiveness of its IP enforcement system was hindered by protectionism. Now, with the rise of innovative Chinese global players such as Huawei and Haier, this has all changed. The most recent system upgrade was the establishment of three specialised IP courts in Beijing, Shanghai and Guangzhou in 2014. Their introduction served as a test for a nationwide roll-out of similar courts in the near future and further boosted patent enforcement activity in China.

A few years ago, the German government took on the challenge of fortifying China's patent system. Today, that investment has resulted in a Chinese enforcement regime that vaguely resembles that of Germany – discovery is limited, while the costs of litigation (although growing) and the average time to trial remain approximately the same as in Germany.

Further similarities between the regimes include that Chinese actions handle infringement and validity in separate proceedings, and Chinese injunctions issue automatically for valid, infringed patents, affording great leverage against the large manufacturing sector – at least in theory. These features, along with the optics that China has cultivated as a rising IP power, have cemented the jurisdiction as a key component in most global portfolios. It has also increased the profile of Chinese patent judges, who are now regularly tapped to share their expertise with global audiences at international IP conferences.

Nonetheless, it is too early to determine whether China will evolve into a globally prioritised or dominant enforcement venue. It must first demonstrate that its enforcement mechanisms are available to all and against all. What is clear is that moving forward, China should be part of a patent owner's enforcement strategy and, under certain conditions, may be crucial to a multi-jurisdictional execution strategy. However, Chinese patent owners should be aware that injunctions are often the only compelling leverage available to them. Typically, damages awarded by the courts will barely cover the legal fees invested, and speed and efficiency come at the cost of access to discovery. Therefore, opportunities to prove infringement are limited, especially considering that all evidence must be produced in notarised form (as well as legalised form, if coming from abroad). These limits affect the kinds of assets that can realistically be asserted.

In addition, planning an enforcement programme that provides adequate leverage against a target requires careful attention to the nature of the portfolio. Some classes of assets (eg, software patents) tend to fare better in certain jurisdictions. The need to obtain evidence of use to prove infringement can also suggest an approach that does not involve enforcement in some jurisdictions or that delays enforcement until after the assets have been enforced in a jurisdiction with more robust discovery.

FRAND: competing definitions

Most SSOs – particularly those with global reach – require their members to identify essential patents (ie, patents necessarily infringed on implementation of a standard) and offer implementers a licence on FRAND terms. However, what this requirement entails is never made explicit. The underlying economic rationale is that the patent owner and the implementer will mutually benefit from the licensing mechanism; therefore, they will be commercially motivated to negotiate efficiently and in good faith. However, that dynamic has been displaced.

Moreover, because SSOs often bring together SEPs with differing views on the monetary value of their intellectual property, they can rarely offer constructive guidance on the nature of the encumbrance. In the absence of a definition of 'FRAND', the courts and administrative bodies have considered the twin policy objectives of the term: ensuring that licensing royalties do not impede the adoption of a standard, while also ensuring fair recompense and continued participation in standard-setting by owners of essential patents. The United States, Germany and China have each struck a different balance.

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In the United States, interpretation of the encumbrance has lurched from concern over the fair apportionment of profits due to the technology being incorporated to concern over the potentially market-distortive effects. Early cases such as *Microsoft v Motorola* and *Innovatio* focused on the former and took stock of other licences or pool rates in the context of a modified *Georgia-Pacific* analysis, in order to adduce a reasonable rate given the FRAND context.

In contrast, the recent *TCL v Ericsson* ruling (which is currently on appeal) considered existing, comparable licences as probative of the non-discriminatory prong of the encumbrance, as well as the fair and reasonable prong. Under traditional *Georgia-Pacific* analysis, a licence is probative of a reasonable royalty insofar as

Case study: *Ericsson v TCL*

Ericsson's ongoing effort to license its portfolio of 3G and 4G SEPs to handset firm TCL is a key example of the challenges facing SEP owners. For years, Ericsson has struck licences with implementers of these standards that reflect the depth and pedigree of its portfolio. But since TCL's licence to Ericsson's 2G portfolio lapsed in 2014, the parties have found themselves at loggerheads.

Ericsson pointed to its long history of licensing implementers and offered what it determined to be terms materially similar to those on which it licensed firms similarly situated to TCL. TCL took the position that Ericsson's longstanding approach was inconsistent with its obligations as a participant in standard-setting to offer implementers FRAND terms.

For Ericsson to maintain the viability of its licensing programme and realise revenue from TCL practising its SEPs, the company had no choice but to mount a worldwide enforcement campaign – with all the accompanying cost and risk. Ericsson therefore brought suits against TCL in France, the United Kingdom, Brazil, Russia, Argentina, Germany and the US District Court of the Eastern District of Texas. TCL brought an action for declaratory judgment with regard to Ericsson's FRAND obligations in the US District Court of the Central District of California, which in 2015 granted TCL's application for an anti-suit injunction and stayed all other proceedings between the parties involving Ericsson's 2G, 3G and 4G SEP portfolios.

In 2017 the California matter proceeded to a bench trial, whereby TCL contended that a FRAND rate should be based on a top-down analysis, under which Ericsson would receive a fraction of the overall royalty stacks that implementers owed the SEP owners for the corresponding standard. Ericsson pointed to its longstanding and successful licensing programme, identified comparable licences and reduced those licences to effective rates based on the units that the parties estimated at the time of the deal the licences would cover.

The court largely accepted TCL's proposal. Since Ericsson had failed to perform its own top-down analysis, the court generally relied on TCL's calculations. Ultimately, it found that a FRAND rate for the portfolio was significantly lower than Ericsson had demanded and that a release payment for TCL's past unlicensed sales, dating back to 2007, was approximately $16.45 million. At the time of writing, the matter is on appeal.

The FRAND royalties calculated by the court stand in contrast to the $75 million that a US District Court of the Eastern District of Texas jury awarded Ericsson in December 2017 for TCL's infringement of a patent not declared essential to any standard. In a May 2018 order, the judge found that TCL's decision to litigate the case adequately supported the jury's finding that the company's post-complaint infringement was wilful, and enhanced the damages by $25 million.

it demonstrates the value that parties in an actual negotiation placed on the rights to be granted. Thus, the inquiry is the valuation placed on the rights at the time of the previous negotiation. In *TCL* the court deviated from this reasoning, holding that whether a rate was non-discriminatory depended on the *de facto* effective rate of existing, comparable licences, as borne out *post hoc* by actual sales data. Under the *TCL* formulation, an SEP owner that asks licensors for lump-sum payments bears the risk that sales of affected products will exceed expectations and drive down subsequent FRAND rates. Consideration of market-distortive effects in the derivation of a FRAND rate would bring the United States closer to the prevailing law in China and other Asian jurisdictions.

The ITC has approached the issue of FRAND encumbrances as a matter of institutional competence and contract law. A series of investigations beginning with *Certain 3G Mobile Handsets* determined that, because a FRAND encumbrance arose as a result of a contract (the agreement specifying the terms of the patent owner's membership in the relevant SSO), the FRAND defence was another form of contract defence – placing the burden of proof on the party claiming a breach of FRAND obligations. Setting a rate was outside the purview of the ITC; therefore, as far as the ITC was concerned, a respondent's FRAND defence will fail where the record shows that the complainant bargained in good faith.

The ITC's approach resembles the German courts' focus on the mechanical elements of a FRAND negotiation. In Germany, the courts have determined the steps that parties seeking an injunction on FRAND-encumbered assets must take prior to enforcement. These steps include articulating to prospective licensees the patent owner's basis for concluding that a given offer is consistent with FRAND – particularly, the basis for concluding that the offer is reasonable.

China and various other Asian jurisdictions agree that an offer must provide the basis for the FRAND position; however, until recently, they focused more on the non-discriminatory element of the encumbrance. Multiple antitrust enforcement proceedings against Qualcomm (China in 2015, and Taiwan and Korea in 2017) illustrated that the chief inquiry in deciding a FRAND rate is the impact on the relevant market (ie, that the rate does not advantage one market-participant licensee over another).

More recently, Chinese courts have fleshed out the mechanics of a FRAND negotiation. In a ruling affirmed on appeal with little discussion in April 2017, the Beijing IP Court issued an injunction against Sony for, among other things, failing to negotiate reasonably with SEP owner IWNCOMM. Similarly, in January 2018 the Shenzhen Intermediate People's Court issued an injunction against implementer Samsung for repeated, unreasonable delays in its FRAND negotiations with SEP owner Huawei.

The global race

The differing interpretations of FRAND advanced by the various countries generally benefit their constituent industries. For instance, China's renowned and powerful manufacturing sector boasts high volumes but, in many cases, low margins. It follows that the country would orient its understanding of the FRAND commitment on market distortion, as any discrepancy in royalty rates to Chinese competitors is magnified by the sector's high volumes and could materially affect the low margins. Given each country's interest in protecting its constituent industries, it is unsurprising that so many countries are jockeying to impose their definition of the term on the rest of the world.

Birss's ruling in *Unwired Planet* demonstrates this competition. The FRAND injunction that he created, combined with the prospect of worldwide adjudication in a single jurisdiction, has already begun to attract SEP enforcement to the United Kingdom. In April 2018 the UK court in *Conversant Wireless Licensing SARL v Huawei Technologies Co Ltd* (16 April 2018 [2017] EWHC 0000 (Pat)) held that the United Kingdom had jurisdiction to determine a global FRAND rate. With this developing line of cases, the United Kingdom is gradually emerging as a key venue for settling FRAND disputes.

China's efforts to steer the discussion have relied primarily on available remedies and market influence. The National Development and Reform Commission has stepped in multiple times to negotiate FRAND terms on behalf of Chinese industries such as handsets. Chinese courts have also issued two injunctions against implementers that refused to take FRAND licences – given the extent of manufacturing in China and the allure of the Chinese market, the threat of such an injunction carries real risk. As a result, SEP owners have begun to take note and incorporate Chinese enforcement into their strategies.

The United States remains vocal in defining FRAND thanks to the historic reliability of the US legal system. Through *Microsoft*, *Innovatio*, *TCL* and others, US district courts have developed a body of law that adds a measure of predictability to FRAND enforcement proceedings, particularly for SEPs relating to telecommunications standards.

US courts have also asserted their position by staying foreign FRAND actions with overlapping parties and issues. The Shenzhen Intermediate People's Court injunction against Samsung came amid ongoing US proceedings involving Huawei and Samsung. In April 2018 the US District Court for the Northern District of California – hearing the US matters between the parties – stayed the foreign counterparts, including the injunction issued three months previously. Similarly, the US District Court for the Central District of California stayed worldwide proceedings between TCL and Ericsson while it determined FRAND rates for Ericsson's SEP portfolios.

For years, US courts have been able to ignore comity and the global nature of SEP enforcement thanks to the jurisdiction's market clout. While the US market for SEPs remains so significant, the courts can continue

TABLE 1. Leading FRAND rulings by region

Region	Case	Court	Significance
United States	*Microsoft Corp v Motorola, Inc* (14-35393)	US District Court of Appeals for the Ninth Circuit	Applied modified *George-Pacific* analysis to derive FRAND royalty rates.
	Realtek Semiconductor Corporation v LSI Corporation and Agere Systems LLC (Case C-12-3451-RMW)	US District Court of the Northern District of California, San Jose Division	The FRAND obligation rendered injunctions unavailable as a remedy.
	In the Matter of Certain 3G Mobile Handsets and Components Thereof (Inv 337-TA-613)	International Trade Commission	The party claiming that a FRAND obligation precludes or limits certain relief bears the burden of demonstrating that such an obligation exists, that the party is owed that obligation, and that the obligation was not met.
	TCL Comm'n v Ericsson ((SAV 14-341 JVS(DFMx) and CV 15-2370 JVS(DFMx))	US District Court of the Central District of California	Ericsson's offers were not FRAND; FRAND rates determined by top-down patent counting approach.
European Union	*Huawei Technologies Co Ltd v ZTE Corp* (Case C-170/13)	European Court of Justice (ECJ)	Prior to enforcement, a FRAND-encumbered patent owner must offer the target a licence on FRAND terms, providing the basis for the belief that the offer is FRAND.
	Unwired Planet v Huawei ([2017] EWHC 711 (Pat), 5 April 2017)	UK High Court of Justice (Patents)	The FRAND obligation contemplates global licences.
Asia	Chinese National Development and Reform Commission (NDRC)'s Investigation into Qualcomm, Inc	NDRC	The Chinese government essentially negotiated FRAND terms on behalf of the Chinese handset market.
	Xi'an IWN Comm v SonyMobile	Bejing IP Court	First injunction granted in China for infringement of SEPs; injunction issued at request of Chinese company; injunction affirmed by Beijing Higher People's Court and Sony ordered to pay equivalent of $1.3 million in damages and court fees of approximately $12,000.
	Huawei v Samsung	Shenzhen Intermediate People's Court	Injunction granted against Samsung; Huawei did not violate its FRAND obligations; Samsung "maliciously delayed negotiations" and was thus the party at fault during negotiations; the court's "at fault" approach utilised guidelines similar to the ECJ's in *Huawei v ZTE*.

to stay foreign FRAND proceedings knowing that their decisions will be respected and followed, despite conflicting with orders being issued by foreign courts with competent jurisdiction. However, it stands to reason that other forums will likely return the favour should the United States ever lose its market position.

Uncertainty begets efficient infringement

The patchwork of approaches to FRAND has complicated efforts to account for the encumbrance; implementers – particularly those based in China – have taken full advantage of this. The dispute between TCL and Ericsson began over half a decade ago and included complaints around the world. Had TCL struck a licence in 2014, when its last SEP licence with Ericsson lapsed, the rates likely would have been in line with those realised in other Ericsson licences. So far, TCL has paid no apparent price for forcing Ericsson to engage in four years of litigation. Indeed, Judge Selna expressly did not derive the FRAND royalty rates that he determined for Ericsson's portfolio from any of the company's existing licences (which, for the most part, exceeded the rate that he imposed by a considerable margin). In any event, there is no indication that Ericsson's significant investment of resources in pursuing TCL will result in a licence (see box-out: *Ericsson v TCL*).

Nokia and Interdigital have also embarked on worldwide SEP enforcement programmes. Their victories have been somewhat pyrrhic – coming at the cost of significant delays in transacting, tremendous expense and a risk to their portfolios.

Even patent pools have had to account for the international disparities in FRAND approaches. VIA Licensing's advanced audio coding patent pool

TABLE 2. Differences between the forums

	United States	US International Trade Commission (ITC)	Germany	China
Expense of litigation	In 2017 median patent litigation expenditures ranged from $800,000 for cases with less than $1 million at stake to $4.9 million for cases with more than $25 million at stake.	In 2017 median patent litigation expenditures ranged from $530,000 for cases with less than $1 million at stake to $4.2 million for cases with more than $25 million at stake.	Defeated party pays court costs and all attorneys' fees based on the amount in contention. In an infringement action, fees and costs awarded range from €40,000 for a case with €1 million at stake to €775,000 for a case with €30 million at stake. In a nullity action, fees and costs awarded range from nearly €32,000 for a case with €250,000 in contention to nearly €120,000 for a case with €2 million in contention.	Attorney's fees estimated for an invention patent are Rmb50,000 to Rmb500,000 at trial (patent court) and Rmb100,000 to Rmb800,000 at first appeal (high court).
Median time to outcome	• Ruling in patentee's favour of infringement – 26 months. • Ruling against patentee of non-infringement – 31.4 months. • Jury's verdict – 36.1 months. • Judge's verdict after a bench trial – 41.9 months.	Earliest practicable time; usually 12-16 months, or within 18 months in more complicated cases.	• Where no neutral expert is appointed by the court – nine-14 months. • Where a neutral expert is appointed by the court – 17-24 months.	• First-instance patent infringement proceedings – six-12 months. • Patent infringement proceedings with foreign elements involved – no time limit for a decision. • Invalidity proceedings – six months to two years.
Patent owner rate of success	In recent cases that proceeded to judgment on the merits, patentees have succeeded at proving infringement at the following rates: • 2008 – 35.9% • 2009 – 43% • 2010 – 40.7% • 2011 – 35.9% • 2012 – 37.4% • 2013 – 37.7% • 2014 – 33.8% • 2015 – 28.8% • 2016 – 24.1% • 2017 – 24.6%	The percentage of investigations that terminated with an ITC-affirmed finding of infringement has varied from 19% in 2016 to 33% in 2017. The ITC issued a general exclusion order in 2.4% of investigations terminated in 2016 and 4.8% in 2017; a limited exclusion order in 21.4% of terminated investigations in 2016 and 30.9% in 2017; and cease and desist orders in 14.3% of terminated investigations in 2016 and 26.2% in 2017.	• For 2007-2012 first-instance infringement proceedings – 66% (Dusseldorf Court). • For 2007-2012 first-instance nullity proceedings – 39% (Federal Patent Court).	Infringement proceedings in 2007-2013: • Invention patents – 67.8% • Utility models – 72.7% • Design patents – 86% Invalidity proceedings in 2007-2013: • Invention patents – 48% • Utility models – 44% • Design patents – 44%
Venue laws	Venue is appropriate in the judicial district where the defendant resides or where infringing acts occurred and where the defendant has a regular and established place of business.	Single venue.	Jurisdiction exists wherever the infringing product is sold. The most common courts in patent infringement proceedings are Dusseldorf, Mannheim and Munich courts, which together hear around 900 cases a year. Approximately 250 nullity proceedings are also initiated each year.	Patent cases can be heard by 70 intermediate people's courts. In 2014 three IP courts (Beijing, Shanghai and Guangzhou) were founded.

Action plan

SEP owners should plan a multi-jurisdictional enforcement programme to license intransigent, worldwide implementers. Therefore, the following factors are worth considering:

- At present, a programme based on enforcement in the ITC and Germany is the best bet for most patent owners.
- Patent owners should also analyse whether enforcement in China would complement US and EU enforcement activity.
- SEP owners should monitor UK developments in relation to FRAND injunctions – the United Kingdom may eventually offer SEP owners sufficient leverage to drive worldwide licensing without worldwide litigation.

successfully licensed nearly the entire addressable market. However, in order to license Chinese firm Xiaomi, in 2017 VIA began to offer an alternative rate structure with discounted rates royalties for sales in China and other emerging markets. Although this achieved good results, the outcome rewarded the implementers' intransigence.

A global enforcement strategy

Although the global practice of patent monetisation is evolving, it has not yet been upended. Single jurisdiction enforcement is no longer a sufficient response to efficient infringement and the impact of patent reform in the United States. Many firms will find that the best course of action remains a balanced approach, with the ITC and Germany providing natural forums for parallel enforcement proceedings and China offering a possible venue in the future.

The speed of ITC or German proceedings mitigates the risk of invalidity proceedings such as *inter partes* reviews or nullity actions. Further, the prospect of exclusionary relief can bring an implementer to the table to discuss international sales. For SEP owners, the fact that these forums focus on formalistic requirements for FRAND negotiations, rather than determining a FRAND rate, restricts the opportunity for implementers to quibble over math.

Patent owners should explore how best to exert leverage in parallel proceedings. In many cases, the obvious strategy will be concurrent filings in the ITC and Germany. Coordinating timing, arguments and consistency of execution across jurisdictions is key to success. With the rigidity of the ITC's schedule and the speed of German court proceedings, cases can be staged to maximum effect and minimal cost.

A well-orchestrated filing schedule that prioritises US litigation – with Unified Patent Court, German and possibly even Chinese filings hitting the scene at the approximate time of the Markman hearing – places almost all worldwide revenue for the disputed articles in jeopardy. It would optimise leverage for reaching global settlement solutions, while allowing litigation costs to ramp up as additional leverage is brought to bear.

To facilitate the coordination of worldwide enforcement campaigns, patent owners around the globe have coalesced on two camps. Under the first approach, the enforcing firm has offices – and therefore expertise – in all major European jurisdictions (mainly Germany, the United Kingdom, France and the Netherlands), as well as optional offices in the United States and China. Under the second approach, the enforcing firm belongs to a confederation of firms in their respective jurisdictions – that is, a well-established, non-exclusive network of equally reputable foreign firms. Under both approaches, technical expertise is essential, as cases will likely require a seamless interaction between lawyers and litigators on the one hand and technical experts and patent attorneys on the other.

The most effective venues

Efficient infringement is central to any modern patent strategy. In a decreasingly US-centric patent landscape, firms should distribute their IP budgets between the United States, Germany and, in some cases, China – despite the discrepancies between these forums.

For the majority of assets, the United States continues to offer the most enforcement advantages.

Following in its wake, China offers an attractive base and a government that is increasingly promoting strong IP rights – although Chinese courts are still perceived as favouring Chinese firms over foreign nationals. Nonetheless, recent decisions such as the Shenzhen injunction against Samsung demonstrate that, in certain circumstances and against the right party, China can be a potent forum – particularly as part of a larger coordinated approach. In these circumstances, China may even provide the most appropriate venue for a first salvo in enforcement.

Finally, Germany offers an attractive addressable market – albeit one that trails the United States and China – and a sophisticated enforcement regime willing to grant injunctions in cases of infringement. However, limited discovery affects the types of case that can prevail there.

Coverage in the three major jurisdictions is preferable, given that the upheaval in the worldwide market has yet to resolve.

During this period of transition, successful monetisation against global firms will require an international approach and a steady hand. Firms should be aware of the various options for enforcement worldwide and their benefits. Top monetisation teams must be skilled at staging and coordinating enforcement in multiple jurisdictions simultaneously and must have global perspective and experience.

Ultimately, the ITC and Germany remain the preferred venues against leading global implementers, despite – or perhaps because of – ongoing changes in patent enforcement. The simplicity of and leverage from the injunctive remedies available in both jurisdictions can drive a licensing discussion on worldwide sales, and neither venue is as susceptible as, for example, US courts to developments that reduce the leverage of patent owners. iam

Michael T Renaud and **James M Wodarski** are partners and **Robert JL Moore** is an associate with Mintz, Levin, Cohn, Ferris, Glovsky and Popeo PC.