Antitrust Paternalism in the 'Smartphone Wars'

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The 'smartphone wars' denotes a series of aggressive patent infringement claims brought globally by technology giants notably Apple, Samsung, Motorola, HTC and Nokia against each other as they battle for market share in this lucrative industry. This article revisits the perennial patent hold-up problem where at the heart of these claims lies the potentially anti-competitive application for an injunction that seeks to prevent the use of standard essential patents (SEPs) in the manufacture of smartphone products. The stakes are arguably high as the grant of injunctive relief by the courts is apt to produce an exclusionary effect on competitors in the market. An interlocking issue involves the prior agreement by patent holders to license their SEPs to any entity on fair, reasonable and non-discriminatory terms (FRAND). However, in view of the elusive determination of FRAND, this article argues for a move towards antitrust paternalism as a solution that will end the smartphone wars. As the smartphone wars approaches a finale, the European Court of Justice now stands on the verge of a landmark antitrust ruling in Huawei v ZTE.

I. Introduction

The ongoing smartphone wars have attracted great interest and controversy amongst key players in the technology industry, IP practitioners, judges and antitrust regulators at both ends of the transatlantic divide. The most recent skirmish involves the European Commission's (Commission) conclusion of a competition challenge following Google Inc.'s Motorola Mobility's attempt to seek an injunction against Apple Inc. due to an alleged infringement of the standard essential patent.[1] In addition, ZTE Corporation, a Chinese telecommunications

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giant files a new antitrust complaint with the Commission against Vringo Inc., challenging the latter's licencing practices following the failure of the parties to agree a FRAND rate.[2]

Indeed, in the European Union (EU), this continuous series of patent infringement claims brought by these technology giants has attracted substantial competition concerns both from the Commission, Europe's powerful antitrust regulator, and the Court of Justice of the European Union as the injunctions threaten to impede innovation and inhibit competition. On a wider jurisprudential basis, the legal battle for patent supremacy has also attracted the interests of IP practitioners and competition lawyers as this phenomenon characterises the classic interface between intellectual property and competition law. For decades, legal scholars and judges have often debated the merits of the intellectual property law framework especially patent law in granting exclusivity to the patentee to utilise and exploit its patent for profits.[3]

This interface gains its dynamic feature when one considers the often-perceived contradictory objectives of competition law which proscribes monopoly of businesses to the detriment of consumers. As competition law seeks to protect the competitive structure of the market,[4] it seems conflicting that there exists at the same time a legal regime which not only encourages but grants exclusivity to an undertaking to exploit its patent rights. With such rights in place, competition is potentially inhibited as patentees are in a position to extract exorbitant royalty rates or simply refuses to license the patents to its competitors. On its face, such exclusive rights facilitate the patentee in wiping out potential competition amongst its rival competitors. Although the drive towards innovation is an important value that has often been cited as the primary justification for having a legal regime protecting patents, also known to be 'hard' intellectual property rights, the extent to which exclusivity actually promotes innovation is also questionable.

This article explores the phenomenon of patent holdup and discusses the dynamic interface between the objectives of patent law and competition law. The recent transatlantic case law developments on the willingness of the courts to determine a FRAND rate and the associated consequences of the grant of injunctive relief will

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[1] John O'Donnell, *'EU moves to end smartphone patent wars in landmark ruling*', <http://www.reuters.com/article/2014/04/29/us-eu-competition-motorola-idUSBREA3S09220140429> accessed 27 December 2014.

[2] Sophie Lawrance and Claire Davies, '*ZTE files competition complaint against Vringo with the European Commission',* <http://www.bristowsclipboard.com/post/zte-files-competition-complaint-against-vringo-with-the-european-commission#sthash.oxWyBiu8.dpuf> accessed 27 December 2014.

[3] Richard Posner, *Antitrust law* (2nd edn., University of Chicago Press 2001).

[4] See Case T-168/01 *GlaxoSmithKline v Commission* [2006] ECR II-2969, para 118.

also be discussed. The last section of this paper discusses the existing EU competition law framework, especially the abuse of dominance prohibition in Article 102 Treaty of the Functioning of the European Union (TFEU) and the refusal to supply jurisprudence of case law in resolving the tension in the smartphone wars. Further, in view of the current uncertainty in the application of the existing principles to patents and the high technology markets, the preliminary reference made by Germany's Düsseldorf to the Court of Justice in *Huawei v ZTE* offers an opportunity to clarify the Commission's proposed 'willing licensee' test and reconcile the *Orange Book* principles, which can then be subsumed within the existing Article 102TFEU jurisprudence post-*Microsoft.*

This article also argues that Article 102TFEU can function as a pivotal remedy that can put an end to the long-running sagas of patent infringement claims and counter-claim challenges of patent invalidity. The arguments as to why antitrust paternalism is justified and should be employed as a last-gasp remedy to the patent holdup problem will also be debated as the global 'smartphone wars' reaches its pinnacle.

II. The patent-competition law interface

1. The objectives of patent law

Intellectual property rights have long been the subject of fascination and fiction not least because they are a form of intangible rights that the law affords proprietary protection. The World Intellectual Property Organisation (WIPO) defines such rights as:

> creations of the mind, such as inventions; literary and artistic works; designs; and symbols, names and images used in commerce…which enable people to earn recognition or financial benefit from what they invent or create.[5]

Whilst copyrights primarily protect artistic works and trademarks protect the value of the goodwill typically generated in a business, patents are in a class of its own in protecting the innovative ideas of researchers and inventors.[6] Patents constitute a special class of intellectual property rights because they are the most valuable in general. This stems primarily from the huge amount of financial costs that is invested by technology and pharmaceutical firms to research and develop a particular invention that is subsequently patented. This ranges from pharmaceutical drugs that combat high blood pressure to aircraft engines[7]. Patent law enables such

[5] See '*What is intellectual property*?', < http://www.wipo.int/about-ip/en/> accessed 27 December 2014.
[6] Michael Spence, *Intellectual property* (Oxford University Press 2007).
[7] See the Wright brothers' patent wars involving the method of flight control.

inventions, the product of expensive research and development activities to be legally protected.

Patentees are usually large companies and inventors who are granted exclusive rights to exploit and use these patents. In exchange, they surrender confidentiality of their invention as they are published to the whole world at large in detail. As the Court of Justice explained in *Centrafarm v Sterling Drug*[8]:

> As regards patents, the specific object of industrial property is inter alia to ensure to the holder, so as to recompense the creative effort of the inventor, the exclusive right to utilise an invention with a view to the manufacture and first putting into circulation of industrial products, either directly or by the grant of licences to third parties, as well as the right to oppose any infringement.[9]

Advocates of patent law argue that the patent system is justified because enormous costs are channelled into the research and development process that produces the technology in the first place. Surely then, the law is mandated to reward these efforts in question by offering exclusive protection. Besides the system of reward that incentivises more innovation to occur, patent law also promotes efficiencies which benefits consumers. Whilst the grant of monopoly in the immediate short-term may produce some allocative inefficiency in terms of distribution of the products to consumers, with the corresponding disclosure of the patented technology, dynamic efficiency which allows the maximum production of goods at the lowest price to the consumer can occur. Hence, although monopoly is granted to patentees, this is only temporary in nature because there is an expiry date for the patent.[10] More importantly, with the disclosure of the invention, follow-up innovation can occur. Competitors in the industry are able to improve on the pre-existing technology to differentiate their products. Consequently, more innovation will occur in the long-term. This is especially so in the high technology markets.[11]

Nevertheless, the grant of monopoly can also produce abuses in high technology markets whereby network effects and interoperable information are crucial for follow-on innovation. Further, the patent monopolistic effects are compounded in the context of standardization whereby a hold-up may occur if access to the

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[8] [1974] ECR 1147.

[9] Case 15/74 *Centrafarm BV and Another v Winthrop BV* [1974] ECR 1147, para 9.

[10] For an explanation of the differing quality of monopoly, see Gerald Sobel, 'The Antitrust Interface with Patents and Innovations: Acquisition of Patents, Improvement Patents and Grant-Backs, Non-Use, Fraud on the Patent Office, Development of New Products and Joint Research' (1984-1985) 53 Antitrust Law Journal 681 at 682-683.

[11] See Christina Bohannan and Herbert Hovenkamp, *Creation without Restraint: Promoting Liberty and Rivalry in Innovation* (Oxford University Press 2011) 60-63.

patented invention is withheld. Therefore, the only abuse that patent law can produce is the restriction of output and the necessary tradeoff that the law must allow to ensure long-term innovation occurs is the profit incentives conferred by the temporary monopoly to patentees.[12]

2. The competition dilemma of patent hold-up

The phenomenon of patent hold-up constitutes a classic representation of the conflicting tensions between the twin legal regimes of intellectual property and competition law in high technology markets. A patentee can derive benefits from its patents by one of two ways. Firstly, it may use the patent in the manufacture and production of an end product to the exclusion of its rival competitors. For example, the manufacture of smartphones and tablets by Samsung. By excluding rivals such as Apple from doing so through its patents, it stands to gain enormous profits from the sales of its products.

Secondly, a patentee can also economically exploit its patent by licensing its patents to numerous licensees who are willing to pay a royalty fee for the use of the patent. Indeed, this lucrative licensing strategy gives rise to 'patent trolls' whereby non-practicing entities (NPEs) engage in an intensive exercise of buying whole patent portfolios and then proceed to collect royalty fees from its licensing.[13] This practice seems a legitimate business strategy but when abused, it may give rise to competition implications especially when the NPEs threaten frivolous infringement litigation to extract excessive royalty fees through the licensing of its patents.[14] Therefore, the licensing of patents does have its pitfalls as abuses may attract competition law concerns.

In the background of these economic practices, it is helpful to note that sophisticated technology products such as tablets and smartphones does not consist of a single patent but tens of thousands of patents.[15] Therefore, in principle, a

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[12] See 'The compatibility of antitrust and patent law goals' in Ward Bowman, *Patent and antitrust law: a legal and economic appraisal* (University of Chicago Press 1973) 2-3.

[13] See Sean Royall, Amanda Tessar and Adam Vincenzo, 'Deterring 'patent ambush' in standard-setting: lessons from Rambus and Qualcomm' (2009) 23 Antitrust 34; Damien Geradin, Anne Layne-Farrar and Jorge Padila, 'Elves or trolls? The role of non-practicing owners in the innovation economy' (2011) 21 Industrial and Corporate Change 73.

[14] See European Commission, *Antitrust: Commission accepts commitments from Rambus lowering memory chip royalty rates*, IP/09/1897, 9 December 2009; see European Commission, *Antitrust: Commission closes formal proceedings against Qualcomm,* MEMO/09/516, 24 November 2009; see also Thomas Meese, 'European Commission accepts commitments from Rambus in 'patent ambush' case' (2010) 1 Journal of European Competition Law and Practice 215.

[15] See Einer Elhauge, 'Do patent holdup and royalty stacking lead to systematically excessive royalties?' (2008) 4 Journal of Competition Law and Economics 535; Damien

manufacturer has to either own or obtain by licence the use of all these patents. In effect, this inevitably give rise to patent thickets, a complex web of interconnected but important patents.[16] Without any one of these seemingly insignificant patents, the manufacture of the end product is not possible. Consequently, the manufacturer is subjected to the effect of excessive licensing costs from a sum total perspective, known as royalty stacking. The owners of one of these seemingly indispensable patents leverage on their essential input by charging exorbitant monopolistic prices for the patents without regard to the licensing costs of other patents. This raises the overall cost of the end product that would be ultimately borne by consumers.[17]

The hold-up phenomenon is best characterized by the 'tragedy of the anticommons' that describes a single resource being owned by multiple patentees, who then refuse others from having access to it.[18] This becomes an anathema to wider social interests and the classic case study that depicts this is the smartphone wars. Patent hold-up occurs when the owner of one of these essential patents, which are indispensable to the manufacture of an end product either refuses to licence or charges excessive royalty fees for the licensing of its patents. In technology parlance, such patents are known as 'standard essential patents' (SEPs). When faced with this dilemma, the manufacturer who is in desperate need of these SEPs is effectively held to ransom by the patent holder.

The hold-up occurs because the manufacturer could not afford to pay the excessive royalty rates demanded and a cheaper alternative could not be sourced elsewhere since such patents are rare. Consequently, the manufacture of the end product is impeded and the business initiative is lost. Alternatively, the manufacturer continues with the manufacture of the end product and the patent holder sues for patent infringement and applies to the court for an injunction to estop the infringing use of the patent.

Patent hold-ups are extremely problematic in practice because the issue lies at the very heart of the interface between patent law and competition law. Both patent law and competition law aims to foster long-term innovation. From the perspective

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Geradin, Anne Layne-Farrar and Jorge Padila, 'The complements problem within standard setting: assessing the evidence on royalty stacking' (2008) 14 Boston University Journal of Science and Technology 145.

16 See Michael Heller, '*The Gridlock Economy: How Too Much Ownership Wrecks Markets, Stops Innovation, and Costs Lives'* (Basic Books 2008).

17 See Mark Lemley and Carl Shapiro, 'Patent Holdup and Royalty Stacking' (2007) 85 Texas Law Review 7; Jeffrey Sidak, Holdup, royalty stacking and the presumption of injunctive relief for patent infringement: a reply to Lemley and Shapiro' (2008) 92 Minnesota Law Review 714.

18 See Michael Heller, 'The tragedy of the anticommons: property in the transition from Marx to markets' (1998) 111 Harvard Law Review 622; Michael Heller, 'The tragedy of the anticommons: a concise introduction and lexicon' (2013) 76 Modern Law Review 6.

of patent law, by rewarding the investment costs of the patentee in the research and development process that creates a particular technology, this creates more incentives to innovate in the future. Competition law also encourages innovation because one of the primary ways in which an undertaking can compete in the market is through product differentiation. By innovating, new products can be offered to consumers. This allows the undertaking to increase its sales and gain more market share. In fact, innovation is the only viable means of maintaining the competitive edge in business, as very few products in this world are timeless in nature.

Nevertheless, there are also conflicting tensions in the law because whilst patent law grants exclusivity, the twin evils that competition law seeks to eliminate are monopoly and collusion. Hence, although both regimes are united by common objectives, the execution in practice may conflict. Further, the patentee has acted legally throughout. The patent is registered in accordance to the Patents Act 1977 and the patentee is merely exercising its consequent rights that flow from the registration. The patent system allows for that and this generates the enormous value of the patent in the first place. It is also the legal right of the patentee to seek an injunction if its patents are infringed.

However, from a competition law perspective, the hold-up effect is potentially anti-competitive because this prevents open competition in the manufacture of the end product especially in high technology markets with follow-on innovation. The effect is exacerbated if such products are commonplace and are in great demand by consumers as a matter of necessity. This includes smartphones that are prevalent globally. Consequently, a monopoly may occur by a single powerful technology firm and patentees are able to impede the production of such products through the extraction of exorbitant sums of royalty rates. This is the classic case of exclusivity of rights giving rise to monopoly.[19] What was originally a well-intentioned legal regime that aims to reward and encourage innovation can on the flipside, be a system that promotes permanent monopoly that inhibits competition. Further, the intervention of competition law in the EU seems fraught with difficulties because protection of all intellectual property rights including patents originates from the national legislations of the member states and the EU Charter also gives legal effect to this protection.[20]

III. The anatomy of the patent wars

[19] See Jeffrey Sidak, 'Patent holdup and oligopolistic collusion in standard-setting organizations' (2009) 5 Journal of Competition Law and Economics 123; Piotr Staniszewski, 'The interplay between IP rights and competition law in the context of standardization' (2007) 2 Journal of Intellectual Property Law and Practice 666.

[20] See Article 17, Charter of Fundamental Rights of the EU [2010] C 83/02.

1. Standardisation and SEPs

In view of the patent hold-up problem caused by a complex web of patent thickets, players in the technology industry are forced to formulate practical solutions. In principle, two strategies were commonly adopted. Firstly, holders of various patents collectively form a pool whereby they agree to licence their patents *en bloc* at an affordable rate as determined by the contributors to the pool. A pool manager is appointed to administer the licencing arrangements and collect the royalty payments. Patent pooling amounts to an *ex post facto* solution to the hold-up problem because it is not a custom-made solution to the technology required to manufacture the end product. Rather, it is usually a pragmatic, convenient and opportunistic economic enterprise by patent holders to exploit their patents by licensing them to manufacturers who may happen to require the collection of patents as it would be cheaper to licence them *en masse*.[21]

The second strategy adopted was to standardise a particular technology into a common format that is primarily designed to increase interoperability. By facilitating interoperability, this helps to create complementary technologies and allows for product substitution. As such, standards define a certain technology such as Digital Video Recorders or USB flash by setting out its technical requirements.[22] This is necessary since many sophisticated products such as smartphones and tablets consist of numerous technologies that work in unison within a single end product device. For example, the smartphone would not have its desired effect without the combination of wireless and touchscreen technology.

Thus, standardisation is a pre-emptive way of resolving the patent hold-up problem. It operates in an *ex ante* manner that is also economically more efficient because the technology is developed in accordance to the standard that is created with the cooperation and agreement of the various patent holders. Inevitably, their individual patents become more valuable after the standard is created. As such, the technology industry has seen the growth of numerous standard-setting organisations (SSOs) such as the European Telecommunications Standards Institute (ETSI). When a standard is created and a patent becomes indispensable to the functioning of a particular technology because they cannot be easily substituted, this is known as a standard essential patent (SEPs). It is these patents

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[21] See Roger Andewelt, '*Analysis of Patent Pools Under the Antitrust Laws'*, (1984-1985) 53 Antitrust Law Journal 611.

[22] See Michael Carrier, '*Standard setting analysis under US law'* in Steven Anderman and Ariel Ezrachi, *'Intellectual Property and Competition Law: New Frontiers'* (OUP Oxford 2011).

that became the subject matter of the smartphone wars.[23]

Notwithstanding the apparent benefits, standardization is not without its difficulties as it presents itself with potential competition concerns. By committing to a standard and increasing the value of a particular technology, holders of such patents inadvertently constitute a small class of elite players in the market. This can help to facilitate collusion between the patent holders. As such, standardization agreements are open to challenge under the anti-cartel provision in Article 101 TFEU.[24]

Alternatively, there is also the danger of the original hold-up problem recurring when these SEP holders refuse to licence their patents at a fair rate in order to extract excessive royalty payments. Hence, to pre-empt this, SEP holders are required to enter into a contractual commitment to irrevocably licence their patents to any prospective licensees at a fair, reasonable and non-discriminatory (FRAND) rate as a prerequisite to a standard being created.[25] Unfortunately, the FRAND rate has never been pre-determined at a precise figure. This inevitably attracts potential post-standardisation hold-up problems when these SEP holders then proceed to bring patent infringement claims with a view to obtaining an injunction against entities that exploit their patents. In response, these entities often employ a two-stage defence in opposing the patent infringement claims. Firstly, these entities challenge the validity of the patents and secondly, they argue that even if the patents are valid, they are willing to take a licence on FRAND terms. Quite often, a neutral observer is unable to identify the actual villain and it is this dilemma that fuels the smartphone wars.

2. Judicial determination of FRAND

The imprecise definition of a FRAND licensing commitment of SEPs has caused hold-up problems to recur, post-standardisation. This is largely due to the failure of SSOs and the standardization agreement in specifying what is a FRAND rate or set out a formula in determining such a rate. Consequently, due to the dispute of the royalty rates between the patent holders and alleged infringers, the onus falls upon the courts to determine what a FRAND rate is.

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[23] See Kevin Coates, '*Competition Law and Regulation of Technology Markets'* (OUP 2011) 185-188

[24] See the Commission's Guidelines on the applicability of Article 101 of the Treaty on the Functioning of the European Union to horizontal co-operation agreements [2011] OJ C11/01.

[25] Damien Geraldin, '*Standardization and Technological Innovation: Some Reflections on Ex-ante Licensing, FRAND, and the Proper Means to Reward Innovators*' (2006) 29 World Competition 511, 515.

Traditionally, English judges and their European counterparts have refrained from setting a FRAND rate. This allows the defendant to argue that he is willing to licence the patent on FRAND terms, as contractually agreed by the patentee. Therefore, until the FRAND rate is determined, the patent infringement claim is held in abeyance. This defence tactic works by delaying the time for litigation to come to an end, thereby incurring more costs and inconvenience to the patentee. Therefore, the failure of the courts to set this rate has caused patent infringement litigation to resume with force across many jurisdictions. Yet, the real reason behind this judicial reluctance has never been truly explained.

Nevertheless, in English law, it is helpful to note that a commitment to licence on FRAND terms that is given by SEP holders amounts to nothing more than a contractual term. In principle, the courts will not uphold terms that are unclear and vaguely expressed. On an objective construction of the term that compels the SEP holders to licence out their patents on fair, reasonable and non-discriminatory terms, there is arguably a high degree of uncertainty and vagueness in what amounts to 'fair and reasonable'. Fair and reasonable seems to imply a duty of good faith and inherently involves the precepts of equitable dealing. However, in English law, the courts have traditionally held that there is no implied duty of good faith as it is simply meaningless[26]. Therefore, it would seem that in the absence of a precise definition given by the parties in the contract of what amounts to 'fair and reasonable', these are unclear contractual obligations which are void for want of certainty.

However, judicial attitudes seem to be changing as there seems to be no end to the continuous patent infringement claims brought by SEP holders. Judges are also increasingly irked by the resulting defence strategy employed by the alleged infringers when the defendants begin to challenge the validity of entire patent portfolios which consist of thousands of patents as a preliminary to the patent infringement claim. This consumes the court's time and resources as the litigation is prolonged. It is these tedious challenges and the spectre of protracted litigation looming large in the courts that causes judges to be anxious that the civil justice system may be abused.

Indeed, the importance of first deciding the challenges to patent validity have been

[26] See *Compass Group UK and Ireland Ltd v Mid Essex Hospital Services NHS Trust* [2013] EWCA Civ 200; *TSG Building Services plc v South Anglia Housing Ltd* [2013] EWHC 1151 (TCC); *Yam Seng PTE Ltd v International Trade Corporation Ltd* [2013] EWHC 111 (QB), per Leggatt J; *Interfoto Picture Library Ltd v Stiletto Visual Programmes Ltd* [1989] 1 QB 433, 439, per Lord Bingham M.R.; *Walford v Miles* [1992] 2 AC 128, 138, per Lord Ackner.

highlighted in the recent High Court case of *Vringo Infrastructure Inc. v ZTE*[27]. In his interim judgment, Birss J explained that the real reason why the courts have not been keen to determine a FRAND rate is due to the logical procedural necessity in first determining the validity of the patents and not because judges are not competent or unwilling to determine a precise rate.[28]

In an extra-judicial lecture, the judge further explained that the courts are well placed to engage on a determination of FRAND by taking into account comparators. This can be done by asking what a hypothetical licensee in the position of the defendant would pay at market rate for such patents in question. This inquiry can be decided by calling in expert witnesses working in the industry. Further, the Commission has indicated in its 2010 Guidelines that 'fair and reasonable' means that the royalties should be assessed based on the value of the patent prior to incorporation into the standard.[29]

In the US case of *Microsoft v Motorola*[30], a breakthrough was achieved when a court for the first time set out clear guidelines in calculating a FRAND royalty rate for SEPs.[31] Modifying the *Georgia Pacific* factors[32], Judge Robart expounded a clear statement of principle that 'a RAND commitment should be interpreted to limit a patent holder to a reasonable royalty on the economic value of its patented technology itself, apart from the value associated with incorporation of the patented technology into the standard'. In a lucid judgment with sharp consideration of all the issues plaguing the smartphone wars especially royalty stacking, the judge explained that 'a royalty rate that implicates such clear stacking concerns cannot be a RAND royalty rate because such a royalty rate does not stand up to the central principle of the RAND commitment –widespread adoption of the standard'. Further, the patent's contribution to the standard and its importance in the overall functionality in the end product constitutes key factors that affected the computation.[33]

This judgment is significant in the EU jurisdiction for two reasons. Firstly, it

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[27] [2013] EWHC 1591 (Pat)
[28] See also *Nokia OYJ v IPCom GmbH & Co KG* [2013] EWHC 1178 (Pat), per Mann J.
[29] See Guidelines on the applicability of Article 101 of the Treaty on the Functioning of the European Union to horizontal co-operation agreements [2011] OJ/C 11, para 289.
[30] No. C10-1823, 2013 WL 2111217 (Western District of Washington, 2013).
[31] See also *Innovatio IP Ventures Patent Litigation*, MDL 2303, Case No. 11 C 9308 N.D. Ill. , Eastern Division, Sep. 27, 2013, per Judge Holdermann.
[32] *Georgia-Pacific Corporation v. U.S. Plywood Corporation*, 318 F. Supp. 1116, 1120 (S.D.N.Y. 1970).
[33] See Christopher May, Stefan Meisner and Nick Grimmer, *'Court Determines RAND Rate for Standard-Essential Patents'*, <http://www.mwe.com/IP-Update-Vol-16-No-5-May-2013-05-31-2013/?PublicationTypes=d9093adb-e95d-4f19-819a-f0bb5170ab6d#3> accessed 27 December 2014.

demonstrates that a court can compute a FRAND royalty rate. Secondly, if judicial determination is possible, this will facilitate a more precise application of competition sanctions against unscrupulous SEP holders and one can also determine whether the alleged infringer is genuine in applying for a license of the SEPs.

3. Injunctive relief: the hold-up revisited

At the heart of the post-standardisation patent hold-up problems and intertwined with the FRAND licensing commitment is the SEP holder's application for an injunction for patent infringement. This attracts competition scrutiny as the threat of injunction is an anti-competitive weapon that can be used by the SEP holders to leverage for more royalty payments. In English law, an injunction is an equitable remedy. As such, it is granted at the court's discretion.[34] In *Shelfer v City of London Electric Co*.[35], Smith LJ sets out a working rule that an injunction will be refused if it would be oppressive to the defendant.[36] In *Navitaire Inc v EasyJet Ltd (No. 2)*[37], Pumfrey J explained that oppression means the injunctive relief would be 'grossly disproportionate to the right protected' and this supersedes the balance of convenience test in the context of a final injunction.[38]

Hence, upon the court's determination that a patent is valid, it is the right of patentees to apply for an injunction to defend against infringement of its patents. However, pending final judgment on patent validity, in *American Cyanamid Co v Ethicon Ltd*.[39], a case that also involved patent infringement, the Court enunciated three cumulative conditions governing the grant of an interim injunction. Firstly, there must be a serious issue to be tried. Secondly, damages would not be an adequate remedy an thirdly, the balance of convenience lies in favour of granting the injunction. Therefore, applying these principles to the context of SEPs that are encumbered by a FRAND licensing commitment, there is a judicial reluctance across both sides of the transatlantic divide in granting injunctions due to the wider public interest that may be affected. The refusal is further justified when one considers the inequitable nature of the SEP holder's conduct in reneging on its

[34] See Section 50, Senior Courts Act 1981 preserving the former jurisdiction under Section 2, Chancery Amendment Act 1858 (Lord Cairns' Act).
[35] [1895] 1 Ch 287.
[36] *Jaggard v Sawyer* [1995] 1 WLR 269.
[37] [2005] EWHC 282 (Ch).
[38] This was applied in the patent infringement case of *Virgin Atlantic v Premium Aircraft* [2009] EWHC Civ 1513 concerning the grant of a permanent injunction; see also Article 3(2), 2004/48/EC of 29 April 2004 on the enforcement of intellectual property rights.
[39] [1975] A.C. 396.

FRAND contractual commitment.[40]

In a significant judicial ruling in *Nokia v IPCom*[41], Roth J was heavily influenced by IPCom's FRAND commitment to license its SEPs that was given to the Commission to avoid competition investigation. As the judge urged the non-practicing entity to 'proceed to a determination of the terms of the licence as rapidly as was practically possible', he commented that:

> I have to say in those circumstances I am very uncertain…to see why a permanent injunction should be granted in this case at all or indeed any injunction. It seems to me a classic case for consideration of the Shelfer criteria, given those circumstances. You are willing to give a licence. Nokia wants a licence. You cannot agree on the terms. They will be determined. There will then be a licence. In those circumstances for a non-trading entity to get an injunction seems to me quite extraordinary.

Similarly, in the US, the Supreme Court in *eBay v MercExchange LLC*[42] expounded a four-stage test in granting a permanent injunction for patent infringements. Firstly, it must be shown that the patentee has suffered an irreparable injury. Secondly, common law monetary damages, are inadequate to compensate for that injury. Thirdly, a remedy in equity is warranted in the balance of hardships between the patentee and the infringer. Lastly, 'the public interest would not be disserved by a permanent injunction'. Applying this test in the context of SEPs encumbered by FRAND commitments, the patentee faces a substantial hurdle to persuade the court that the public interest would not be harmed by the grant of an injunction. Further, since the patentee is asking for more royalties, damages seem to be an adequate remedy to the infringement. As such, the equitable tests that currently exist in the Anglo-American jurisdictions contain sufficient safeguards against the grant of an injunction for SEPs that are encumbered by FRAND licensing commitments.

IV. The competition law framework

1. Article 102 TFEU and standardisation

The EU competition law framework consists primarily of twin provisions in Articles 101 and Article 102TFEU. Whilst both provisions were drafted to combat two distinct types of competition violations, they are complementary to each other.

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[40] See Robert Lundie-Smith and Gary Moss, '*Bard v Gore: to injunct, or not to injunct, what is the question? Is it right to reward an infringer for successfully exploiting a patent*?' (2013) 8 Journal of Intellectual Property Law and Practice 359, 362-363.
[41] [2012] EWHC 1446 (Ch).
[42] 126 S. Ct. 1837 (2006).

In many ways, Article 102TFEU is an exceptional competition provision because it deals with unilateral conduct by undertakings as opposed to the anti-cartel provision in Article 101 which concerns abuses of a bilateral nature involving an agreement[43] or a concerted practice[44] by undertakings to distort competition in the market. Whilst standardization agreements had been the subject of intense scrutiny of the Commission since it can increase the opportunities for collusion to occur by patent holders participating in the industry standard[45], the practice also has competition implications under Article 102TFEU.

Article 102TFEU prohibits an undertaking from abusing its dominant position in the internal market or in a substantial part of it.[46] In *United Brands v Commission*[47], the Court of Justice explained that a position of dominance exists when:

> a position of economic strength enjoyed by an undertaking which enables it to prevent effective competition in being maintained on the relevant market by giving it the power to behave to an appreciable extent independently of its competitors, customers and ultimately of its consumers.[48]

Further, this is a question of fact that is assessed on 'a combination of several factors which, taken separately, are not necessarily determinative'. Traditionally, EU jurisprudence has placed primary importance on an undertaking's market shares.[49]

In the context of intellectual property rights, it is helpful to note the Court of Justice's classic pronouncement in *Consten & Grundig v Commission*[50] which still resonates today as the starting point for considering the interface between intellectual property and competition law.[51] The Court explained that whilst the

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[43] Case C-3/01 P, *Bayer AG v Commission* [2004] ECR I-23, paras 97, 100-103.
[44] Case C-8/08, *T-Mobile Netherlands BV v Nederlands* [2009] ECR I-4529, para 61.
[45] See the Commission's Guidelines on the applicability of Article 101 of the Treaty on the Functioning of the European Union to horizontal co-operation agreements [2011] OJ C11/01; see also the regulation of patent pools in the revised Technology Transfer Block Exemption Regulation No. 316/2014 (TTBER) and the related Technology Transfer Guidelines, that came into force on 1 May 2014.
[46] Case C-41/90, *Höfner and Elser v Macrotron GmbH* [1991] ECR I-1979, where the ECJ defines an 'undertaking' as any 'natural or legal persons engaged in an economic activity'.
[47] [1978] ECR 207.
[48] Case 27/76, *United Brands Continentaal BV v Commission* [1978] ECR 207, paras .65-66.
[49] see Guidance on the Commission's enforcement priorities in applying Article 82 of the EC Treaty to abusive exclusionary conduct by dominant undertakings [2009] OJ C 45/02, paras 13-15.
[50] [1966] ECR 299.
[51] See Christopher Stothers, '*Parallel Trade in Europe: Intellectual Property, Competition and Regulatory Law'* (Hart Publishing 2007) 28.

existence of intellectual property right in itself does not amount to an antitrust offence, the exercise of the right in question may in some circumstances amount to competition violation and thus be restricted by competition law.[52]

Although the statement was made in the context of Article 101 TFEU, it can apply by analogy in the context of Article 102 TFEU concerning the abuse of an undertaking's dominant position. Following this reasoning, the mere possession of an intellectual property right does not *ipso facto* confer dominance on an undertaking.[53] This position is currently adopted in the US whereby the Supreme Court declared in *Illinois Tool Works Inc. v Independent Ink Inc.*[54] that the presumption of a patent conferring market power on a patentee no longer applies. This is because there may be other alternative intellectual property rights manifested in competing technologies that may offset the dominance effect in the said market by reducing the market share of the patent holder.[55]

In its Horizontal Co-operation Guidelines, the Commission also stated that although

> the establishment of a standard can create or increase the market power of IPR holders possessing IPR essential to the standard, there is no presumption that holding or exercising IPR essential to a standard equates to the possession or exercise of market power. The question of market power can only be assessed on a case by case basis.[56]

Having said that, there is a high possibility that the owner of a valuable intellectual property right such as a standard essential patent that is rare and indispensable to

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[52] Case 58/64, *Consten SA and Grundig-Verkaufs GmbH v Commission* [1966] ECR 299 at 345; see also the existence/exercise dichotomy in Case 78-70, *Deutsche Grammophon Gesellschaft mbH v Metro-SB-Großmärkte GmbH & Co. KG.* [1971] ECR 487, para 16.

[53] See Liguo Zhang, '*Refusal to license intellectual property rights under Article 82 EC in light of standardisation context'* (2010) 52 European Intellectual Property Review 402.

[54] 547 US (2006).

[55] In *Jefferson Parish Hospital District (No. 2) v. Hyde*, 466 U.S. 2 (1984), Justice O'Connor of the US Supreme Court explained that it is a 'common misconception to presume that a patent or copyright, a high market share or a unique product by itself demonstrates market power…while each of these three factors might help to give market power to a seller, it is also possible that a seller in these situations will have no market power: for example, a patent holder has no market power in any relevant sense if there are close substitutes for the patented product'; see also the comments by Ariel Katz, '*Intellectual Property, Antitrust, and Market Power: Making Sense of Nonsense*' (2007) 49 Arizona Law Review 837 at 849-850; see also the explanation in Phillip Areeda and Herbert Hovenkamp '*Fundamentals of Antitrust Law'* (4th edn., Aspen Publishing 2011) 5-110.

[56] See Guidelines on the applicability of Article 101 of the Treaty on the Functioning of the European Union to horizontal co-operation agreements [2011] OJ/C 11, para 269.

the production of ubiquitous end product devices such as smartphones commands a dominant position in the said market. This position is fortified in the context of standardization where a particular standard has been created that only accommodates certain types of technologies that are complementary to each other. Inevitably, the effect is such that technologies that are not included in the standard are almost always excluded. Hence, patent holders of technologies included in the standard are elevated to an exclusive position over and above the other patent holders whose technologies are excluded from the standard.[57] This is supported by the Commission's merger decision involving Google's acquisition of Motorola Mobility Inc. whereby it commented that 'the specificity of SEPs is that they have to be implemented in order to comply with a standard and thus cannot be designed around, i.e. there is by definition no alternative or substitute for each such patent. Therefore, each SEP constitutes a separate relevant technology market on its own'.[58] Further, in its *Motorola* and *Samsung* decisions, the Commission has publicly declared that the mere possession of a single patent essential to 2G and 3G wireless communications standards developed within the European Telecommunications Standardisation Institute (ETSI) can result in a finding of a dominant position.[59]

Thus, when a standard in question is used to manufacture sophisticated end products which are prevalent amongst consumers in global markets such as the smartphone, this allows the patent holders of SEPs to command a dominant position in the end-product market as the possession of a rare and indispensable patent can confer substantial market share to an undertaking in the market due to the rarity of the end product manufactured and the consequent higher barriers of entry into the market. Whilst EU competition law does not penalize undertakings for being dominant and acquiring a position of dominance does not constitute an antitrust violation per se, dominant undertakings are nevertheless vested with a 'special responsibility not to allow its conduct to impair genuine undistorted competition in the common market'.[60]

Therefore, the next controversial issue to be considered is whether the refusal to licence one's SEPs on FRAND terms as alleged by the infringer breaches this

[57] See Catriona Hatton, Elena Cortes and Adam Dawson, '*Squaring the circle: the EU's quest for balance between antitrust and intellectual property'* (2014) 6 The European Antitrust Review 6.
[58] COMP/M.6381 – *Google/Motorola Mobility* (2012), para 54, 61.
[59] See cases COMP/39.939, *Samsung – Enforcement of UMTS standards essential patents* and COMP/39.985, *Motorola – Enforcement of GPRS standard essential patents.*
[60] Case 322/81, *NV Nederlandsche Baden-Industrie Michelin v. Commission* [1983] ECR 3461.

special responsibility and amounts to an 'abuse' of the patent holder's dominant position in the market.

In *Hoffmann-La Roche v Commission*, the Court of Justice explains abuse as an:

> objective concept relating to the behaviour of an undertaking in a dominant position which is such as to influence the structure of a market where, as a result of the very presence of the undertaking in question, the degree of competition is weakened and which, through recourse to methods different from those which condition normal competition in products or services on the basis of the transactions of commercial operators, has the effect of hindering the maintenance of the degree of competition still existing in the market or the growth of that competition.[61]

Notwithstanding this general definition, the concept of 'abuse' under Article 102 TFEU has never been exhaustively defined other than the range of exclusionary and exploitative type abuses set out in Article 102(2) TFEU such as predatory pricing[62], loyalty rebates[63] and price discrimination[64]. A refusal to licence one's intellectual property right such as a patent does not typically fall within the traditional conception of abuse for the purposes of the prohibition under Article 102 TFEU.

Nevertheless, EU case laws on this issue has been rapidly developing over the decades since the impetus given by the Court of Justice in *Consten & Grundig* which first recognises the possibility of violating competition law through the exercise of one's intellectual property right. This potentially extends to the refusal of a patent holder to license its SEPs on FRAND terms.

2. Refusal to supply jurisprudence

The application of Article 102 TFEU to the refusal to supply or deal with one's competitor has been a vaguely conceived jurisprudence. Although early cases do not concern the refusal to license one's intellectual property right, a series of high-

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[61] [1979] ECR 461.
[62] Case C-62/86, *AKZO Chemie BV v Commission* [1991] ECR I-3359; Case C-333/94, *Tetra Pak II v Commission* [1996] ECR I-5951.
[63] Case 85/76, *Hoffmann-La Roche & Co AG v Commission* [1979] ECR 461; Case 114/73, *Suiker Unie and others v Commission* [1975] ECR 1663; Case C-322/ 81, *NV Nederlandsche Baden-Industrie Michelin v Commission* [1983] ECR 3461; Case T-219/99, *British Airways plc v Commission* [2003] ECR 5917.
[64] Case 27/76, *United Brands Company and United Brands Continentaal BV* v Commission [1978] ECR 207.

profile litigation such as *Microsoft* and the smartphone wars have now strongly point to this likely development.[65]

a) The essential facilities doctrine

The doctrinal development underpinning the application of Article 102 TFEU to refusal to supply cases has been a subject of debate. Whilst EU case laws on the subject made no explicit reference to the essential facilities doctrine being the source of inspiration of its judgments, many competition lawyers argue that the development of Article 102 TFEU on the issue traces its origins to or at least drew inspiration from the essential facilities doctrine that was first expounded in US antitrust jurisprudence.[66]

In the seminal decision of *US v Terminal Railroad Association*[67], a group of owners of the sole railway terminal in St. Louis prevented competing railroads from offering using the terminal to offer transportation services. The Supreme Court held that this refusal constitutes an attempt to monopolise the transportation services that breached Section 2, Sherman Act.[68] Consequently, a positive obligation was imposed on the terminal owners to offer their essential facility at a reasonable rate.[69] The doctrine developed to maturity in *MCI Communications Corporation v. AT&T*[70] when the Court of Appeals for the Seventh Circuit expounded a four-stage test to determine its precise application. Firstly, a monopolist must have control of the essential facility. Secondly, there must be an inability by competitors to practically or reasonably to duplicate the essential facility. Thirdly, the monopolist denies the use of the essential facility to a competitor and lastly, the provision of the facility in question must be feasible.[71]

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[65] See Guidance on the Commission's enforcement priorities in applying Article 82 of the EC Treaty to abusive exclusionary conduct by dominant undertakings [2009] OJ C 45/02, paras [75]-[79]; see also Renato Nazzini, '*The Foundations of European Union Competition Law: the Objective and Principles of Article 102'* (Oxford University Press 2011) 271.

[66] Derek Ridyard, *'Essential facilities and the obligation to supply competitors under the UK and EC competition law'* (1996) 8 European Competition Law Review 438.

[67] 224 U.S. 383 (1912).

[68] The US equivalent of the EU's abuse of dominance position in Article 102 TFEU is Section 2, Sherman Act 1890 which states that it is illegal to 'monopolize, or attempt to monopolize, or combine or conspire with any other person or persons, to monopolize any part of the trade or commerce among the several States, or with foreign nations'.

[69] See also *Otter Tail Power Co. v United States*, 410 U.S. 366 (1973).

[70] 464 U.S. 891 (1983).

[71] See Robert Pitofsky, Donna Patterson and Jonathan Hooks, '*The Essential Facilities Doctrine under United States Antitrust Law'* (2002) 70 Antitrust Law Journal 443 at 445-448; Abbott Lipsky and Gregory Sidak, '*Essential Facilities'* (1999) 51 Stanford Law Review 1187.

However, there has been an emasculation of the doctrine in the past decades as US antitrust law began to adopt a less interventionist stance. This is partially a result of the heavy influence of the post-Chicago antitrust analysis that primarily views market forces as the best regulator of competition in the market.[72] As such, in the context of the essential facilities doctrine, the Supreme Court in *Twin Labs. Inc. v Weider Health & Fitness*[73] pronounced that 'antitrust law does not require one competitor to give another a break just because failing to do so offends notions of fair play'. Further, in *Eastman Kodak Co. v. Image Technical Services Inc*.[74], the Supreme Court explained that whilst 'it is true that as a general matter a firm can refuse to deal with its competitors, such a right is not absolute. It exists only if there are legitimate competitive reasons for the refusal.'[75]

In the landmark ruling of *Verizon Communications v Law Offices of Curtis V. Trinko*[76], the Supreme Court commented that the essential facilities doctrine is largely formulated by the lower courts and was reluctant to apply Section 2 to refusal-to-deal cases. Demonstrating outward hostility to the doctrine and distinguishing the prior cases especially *Aspen Skiing* as involving concerted actions rather than a unilateral refusal to deal, the Supreme Court held that it had never endorsed the doctrine.[77] Hence, there is 'no need to either recognize it or to repudiate it here'.

In this class action, AT&T customers alleged that Verizon, a local telephone company had failed to grant them access to the local telecommunications network and failed to comply with its statutory obligation to cooperate with its rivals in providing adequate technical assistance. This has the effect of reducing the quality of retail phone services provided by AT&T and its other rivals. The action was brought under Section 2, Sherman Act whereby antitrust law is invoked to

[72] See Herbert Hovenkamp, 'Post-Chicago Antitrust: A Review and Critique' (2001) Columbia Business Law Review 257.
[73] 900 F.2d 566, 568 (2nd Cir. 1990).
[74] 504 U.S. 451, 483 (1992).
[75] See also *Aspen Skiing Co. v Aspen Highlands Skiing Corp*., 472 U.S. 585, 601 (1985).
[76] 540 U.S. 398 (2004).
[77] See Joseph Coker, '*Saving other Tail: the essential facilities doctrine and electric power post-Trinko'* (2005) 33 Florida State University University Law Review 231 at 244-245; see also '*U.S. Supreme Court Reverses Second Circuit in Trinko: Decision Places Further Limits on Monopolist's Duty to Deal with Rivals'*, now <http://www.mwe.com/publications/uniEntity.aspx?xpST=PublicationDetail&pub=5746> accessed 27 December 2014.

stimulate competition into the telecommunications industry involving close operating networks.[78]

On appeal to the Supreme Court, six of the nine justices held that Section 2 is not violated. Justice Scalia, a proponent of the Chicago School economics, who delivered the leading judgment, gave a thorough lesson in modern competition economics on innovation. From a legal perspective, market power is insufficient to support a finding of violation under Section 2 because an 'intent to monopolise' must also be demonstrated especially a 'wilful acquisition or maintenance of monopoly power as distinguished from growth or development as a consequence of a superior product, business acumen, or historic accident'.[79]

Applying the characteristic economic theories of the Chicago school and putting his faith on the power of market forces to regulate competition, the judge explained that 'the mere possession of monopoly power, and the concomitant charging of monopoly prices, is not only not unlawful; it is an important element of the free-market system. The opportunity to charge monopoly prices – at least for a short period – is what attracts business acumen in the first place; it induces risk taking that produces innovation and economic growth. To safeguard the incentive to innovate, the possession of monopoly power will not be found unlawful unless it is accompanied by an element of anticompetitive conduct'.[80] There must be proof that the competitive process and consumers are harmed and not competitors.[81] The judge was also convinced that the charging of monopolistic prices is a driver of innovation as it allows the company to invest in improving its services. More significantly, the Supreme Court dismissed the claimant's monopoly leveraging claim that Verizon has leveraged its monopolising market power in the upstream market to gain a competitive advantage in the downstream market[82], emphasising that there must also be a 'dangerous probability of success' in monopolising a second market for section 2 to apply.[83]

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[78] Section 601(b)(1), US Telecommunications Act of 1996 provides that 'nothing in this Act shall be construed to modify, impair, or supersede the applicability of any of the antitrust laws.'

[79] See *United States v. Grinell Corp.,* 384 U.S. 563, 570-571 (1966).

[80] *Verizon Communications v Law Offices of Curtis V. Trinko, LLP,* 540 U.S. 398, 407 (2004).

[81] See *United States v Microsoft Corp*, 253 F.3d 34, 58 (DC Cir. 2001) (en banc) (per curiam); see also *United States v Dentsply Int'l*, 399 F.3d 181, 187 (3d Cir. 2005), cert. denied, 126 S. Ct. 1023 (2006).

[82] See Patricia Gray, '*Antitrust damages for a monopolist's customers after Berkey Photo, Inc. v. Eastman Kodak Co'* (1981) 59 Washington University Law Review 173, 178-180.

[83] This effectively overrules *Berkey Photo Inc. v Eastman Kodak Co*., 603 F.2d 263 (2d Cir. 1979).

On the essential facilities doctrine, Justice Scalia emphasized that the indispensability element of a lack of access to a facility is the trigger for the doctrine to apply. Hence, on a logical deduction, where the statute has mandated access to the facility, there is no scope for the antitrust doctrine to apply.[84] Influenced by the arguments of Areeda, the judgment indicates that once a sector-specific regulation exists to remedy any anti-competitive harm, this will preclude the application of the antitrust doctrine.[85]

Therefore, in wider doctrinal terms, Justice Scalia's economic-laden ruling had severely restricted the essential facilities doctrine especially in a regulatory context and reset the interface of the Section 2, Sherman Act liability on monopolization through the exercise of intellectual property rights.

b) The exceptionality test

In EU competition law, the application of Article 102 TFEU in mandating a positive duty to supply or deal with a competitor was first set out in the seminal case of *Commercial Solvents v Commission*[86]. Commercial Solvents, the largest manufacturer of a certain chemical supplied large quantities of them to Zoja, a manufacturer of tuberculosis drugs. Commercial Solvents then refused to supply the chemical to any entity in the EU except to Instituto, its own subsidiary company that had begun to competitively manufacture the drug. The Commission concluded that this refusal constituted an abuse of its dominant position contrary to Article 102 TFEU. The Court of Justice upheld the challenge, holding that 'an undertaking which has a dominant position in the market in raw materials and which, with the object of reserving such raw material for manufacturing its own derivatives, refuses to supply a customer, which is itself a manufacturer of these derivatives, and therefore risks eliminating all competition on the part of this customer, is abusing its dominant position'.[87]

To rationalize the decision of the Court, one must note the political underpinnings in light of the era in which this case was decided. Further, the function that competition law plays in the early days of the internal market was markedly

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[84] See Adam Candeub, '*Trinko and re-grounding the refusal to deal doctrine'* (2004-2005) 66 University of Pittsburgh Law Review 821 at 825; James Scheuermann and Willam Semins, '*A New Method for Regulatory Antitrust Analysis? Verizon Communications Inc. v. Trinko'* (2005) 12 Richmond Journal of Law & Technology 1.
[85] See Phillip Areeda, '*Essential Facilities: An Epithet in Need of Limiting Principles'* (1989) 58 Antitrust Law Journal 841.
[86] [1974] ECR 223.
[87] Case 7/73, *Commercial Solvents v Commission* [1974] ECR 223, para 25.

different from the policies of today.[88] Then, the possession of intellectual property rights were suspiciously seen as tools that can be used to partition the internal market and a strict refusal to licence such rights were treated as impediments to the success of the internal market. Consequently, this became the immediate motivation for the development of the refusal to supply jurisprudence in the context of Article 102 TFEU.

Astonishingly, as soon as the jurisprudence was instituted, the emasculation sets in. In *Volvo v Erik Veng*[89], an infringement action was brought by Volvo against Veng, alleging the latter's infringement of its registered design for the front wings of its cars.[90] Veng had manufactured and marketed the car parts in the UK without the consent of Volvo. One of the defences presented by Veng was the argument that Volvo had refused to grant it a licence and this infringes Article 102 TFEU. Upon preliminary ruling, the Court of Justice cautioned that 'an obligation imposed upon the proprietor of a protected design to grant to third parties, even in return for a reasonable royalty, a licence for the supply of products incorporating the design would lead to the proprietor thereof being deprived of the substance of his exclusive right, and refusal to grant such a licence cannot in itself constitute an abuse of a dominant position'.

However, the Court gave three crude examples of 'exceptional circumstances' when a refusal may constitute an abuse contrary to Article 102 TFEU. This includes 'the arbitrary refusal to supply independent repairers, the fixing of prices at an unfair level or a decision to stop production even though the relevant product is still in circulation, and provided that such conduct is liable to affect trade between member-States'.[91]

Nonetheless, despite the Court of Justice's endorsement of Article 102 TFEU in potentially sanctioning a dominant undertaking's refusal to supply, the Court did not employ the essential facilities doctrine or such terminology.[92] Instead, it was the Commission that first incorporated the doctrine in its decision in *B&I Line Plc v Sealink Harbours* Ltd,[93] where it defined 'essential facility' as 'a facility or infrastructure, without access to which competitors cannot provide services to their

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[88] Valentine Korah, '*Intellectual Property Rights and the EC Competition Rules'* (Hart Publishing 2006) 135.
[89] [1988] ECR 6211.
[90] Section 1, Registered Designs Act 1949.
[91] Case 238/87, *Volvo AB v Erik Veng (U.K.) Limited* [1988] ECR 6211, paras 8-9.
[92] See Mark Furse, '*The 'Essential Facilities' doctrine in Community law'* (1995) 16 European Competition Law Review 469; Romano Subiotto, '*The Right to Deal with whom one pleases under EEC competition law: A Small Contribution to a Necessary Debate'* (1992) 13 European Competition Law Review 234.
[93] Commission Decision of 11 June 1992, [1992] 5 C.M.L.R. 255, para 41.

customers'.[94] Further, the Commission held that Article 102 TFEU is infringed if there is a refusal by a dominant undertaking to grant access to this facility without objective justification or if the terms granting such access are discriminatory.[95]

The doctrinal development of Article 102 TFEU in relation to the compulsory exploitation of intellectual property rights occurred in *Radio Telefis Eireann and Independent Television Publications Ltd. v Commission*[96], otherwise known as the Magill case. This concerns the copyright licensing of information on television schedules. Magill was an enterprising Irish magazine publisher that wanted to produce a comprehensive guide with all the television programs on a weekly basis. To accomplish this, Magill required RTE, a public broadcasting company to supply it with information of its programming schedule for the week. When RTE was only prepared to give a license for the publication of a program listing on a daily basis, Magill challenged this refusal as an abuse of RTE's dominant position in the market contrary to Article 102 TFEU.

The Court of Justice held that although the mere refusal of a copyright license does not *ipso facto* constitute an infringement of Article 102 TFEU, it can in 'exceptional circumstances' amount to an abuse of one's dominant position. Reiterating the principle in *Volvo* that competition law imposes no general duty on undertakings to compulsorily deal or supply, the Court of Justice then expounded the 'exceptional circumstances' that attracts the prohibition in Article 102 TFEU.

Firstly, the refusal must relate to a product or service that is indispensable to the exercise of a certain activity on a secondary market. In such a case, the facility is said to be essential. Secondly, the refusal must have the effect of preventing the emergence of a new product for which there is potential consumer demand. Thirdly, the refusal in question must have the quality of excluding any effective competition from the secondary market. This involves the element of cross-leveraging of market power from an upstream market to a downstream market. Fourthly, there is an absence of objective justifications for the refusal.[97] In particular, the Court was heavily influenced by the fact that RTE was using its copyright as a tool to monopolise the market and not in the pursuit of innovation or a means to protect its creative efforts.

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[94] See also Commission Decision of 21 December 1993, *Sea Containers v. Stena Sealink* [1994] O.J. L.15/8, para 66.

[95] See John Temple Lang, '*Defining Legitimate Competition: Companies' Duty to Supply Competitors and access to essential facilities'* (1994) 18 Fordham International Law Journal 439; Albertina Albors-Llorens, '*The essential facilities doctrine in EC competition law*' (1999) 58 Cambridge Law Journal 461, 490-492.

[96] [1995] ECR 1-743.

[97] Joined cases C-241/91 P and C-242/91 P, *Radio Telefis Eireann and Independent Television Publications Ltd v Commission* [1995] ECR I-743, paras 50-56.

Although the Magill decision encourages the doctrinal development of Article 102 TFEU in the exploitation of intellectual property rights, it is noted that the application of Article 102 TFEU on the refusal to license one's intellectual property right is not without its difficulties and controversies. This is because of the nature of the alleged wrongdoing. As opposed to most abuse cases under Article 102 TFEU which concerns a misfeasance or a positive act, a mere refusal to license is essentially an omission. At the least, in English law, an omission does not traditionally attract legal sanctions save in the most exceptional of cases that justify the state's intervention.[98] Secondly, the holder of an intellectual property right commands full proprietary rights. Hence, it follows that the owner of such rights has the commercial freedom to refuse to deal with anyone and the imposition of a compulsory legal obligation to deal risks violating the very precepts of private property law.

In this respect, the subsequent case of *Oscar Bronner GmbH v Mediaprint Zeitungs*[99] represents a significant milestone. Firstly, it addressed the essential facilities doctrine and gave recognition to its influence in EU antitrust jurisprudence. Secondly, it demonstrated the pragmatism of the Court of Justice in developing its jurisprudence on refusal to supply cases and presented a timely limitation to the more liberal stance adopted in Magill. Bronner argued that an Austrian newspaper publisher's refusal to allow it access to a widely circulated home delivery network constituted an abuse of dominance contrary to Article 102 TFEU on the basis that the home delivery constituted an essential facility.

Although *Bronner* did not concern the licensing of intellectual property rights, Advocate General Jacobs produced an influential opinion that addressed the application of the essential facilities doctrine that originated from US antitrust case laws. The tenor of the Advocate General's opinion strongly advocated for a narrow application of the doctrine. In doing so, two main reasons were cited. Firstly, if the law imposes an obligation to supply, this will have the effect of reducing or removing the incentive for the original investment to be made in developing the essential facility in question. This is detrimental to innovation and consumers. Secondly, the freedom of contract is a general principle that is recognized in the legal systems of most member states and therefore it requires sufficiently cogent reasons to justify the intervention of competition law. Further, since the objective of Article 102 TFEU is to prevent distortion of competition and not to protect

[98] See for example *Stovin v Wise* [1996] AC 923, per Lord Hoffmann on the nature and treatment of omissions in tort law.
[99] [1998] ECR I-7791.

competitors, therefore it is not inconsistent in principle for a competitor to invoke competition law to force the trade of a certain required raw material.[100]

However, the Advocate General was prepared to make an important concession when a duty to supply would arise. This would occur when the refusal to supply would produce a 'genuine stranglehold' on the downstream market that would result in competition in the downstream market being wiped out. This will occur when 'duplication of the facility is impossible or extremely difficult owing to physical, geographical or legal constraints or is highly undesirable for reasons of public policy'.[101] It follows that the threshold for a duty to arise is high and would not be met if there is only a mere competitive advantage that is being conferred by the essential facility on a particular undertaking.

In doctrinal terms, *Bronner* represents a landmark decision because this was the first time that the Court of Justice made explicit reference to the essential facilities doctrine. Further, the Court was keen to narrow the circumstances of its application by neatly setting out clearer principles. In this manner, the uncertainty caused by the *Magill* decision was clarified. In particular, the 'indispensability' test is only satisfied if there are no alternative solutions in existence, be it actual or potential substitutes for the essential facility in question. This would be satisfied it if can be shown that it is not economically liable to produce such substitutes.[102]

This was not met in *Bronner* because the home delivery network was not indispensable to the business of Bronner.[103] Further, just because it was not economically viable for Bronner to set up its own delivery network by reason of its small circulation that does not mean that the network was indispensable because Bronner can still circulate its newspapers through shops or posts, although they may be less advantageous.[104]

In *IMS Health GmbH & Co. v NDC Health*[105], the Court refined the Magill test and further expanded the principles. IMS Health supplies data to pharmaceutical companies according to brick structures. These structures were developed by IMS and became the industry standard on reporting sales data. When IMS discovered that its competitors were using its brick structures without its consent, it sought

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[100] Case C-7/97, *Oscar Bronner GmbH & Co. KG v. Mediaprint Zeitungs-und Zeitschriftenverlag GmbH & Co. KG* [1998] ECR I-7791, paras 56-58.
[101] *Ibid.* para 65.
[102] *Ibid.* para 46.
[103] A similar result can also be seen in the earlier copyright case of Case T-504/93, *Tierce Ladbroke SA v Commission* [1997] ECR II-923, para 132.
[104] Frank Fine, '*The EC Competition Law on Technology Licensing'* (Sweet & Maxwell 2005) 126.
[105] [2002] ECR I-3401.

injunctions. One of its competitors raised an Article 102 defence, alleging IMS's abuse of its dominance for refusing to license the structures.

In finding that Article 102 TFEU applies, the Court confirmed that all the factors in Magill are cumulative. Crucially, the decision contains a relevant point to SEPs in the smartphone wars. The Court explained that the brick structure created by IMS constituted an industry standard and in determining its indispensability, the element of high dependency on a technical level by other players in the market is a pivotal factor to be considered. Consequently, it follows that the cost of switching to alternative structures is an imperative factor that may indicate indispensability.[106]

Further, in adopting a liberal interpretation of the indispensability test, the Court held that there is no strict need to identify two separate markets provided there are two distinct stages of production that are interconnected. Although the licensee must operate in a secondary market that is different from which the right holder operates, that secondary market need not yet come into existence as a matter of fact and can remain a notional market until the licensing issue is determined.[107]

The Court also clarified that a refusal 'may be regarded as abusive only where the undertaking which requested the licence does not intend to limit itself essentially to duplicating the goods or services already offered on the secondary market by the owner of the copyright, but intends to produce new goods or services not offered by the owner of the right and for which there is a potential consumer demand'.[108]

Unfortunately, the judgment creates uncertainty by failing to clarify what constitutes a 'new product' after explaining that a mere duplication does not suffice. This seems to create a lacuna that may serve to encourage more challenges under Article 102 since potential licensees may easily introduce new features and functionality to meet the threshold of a 'new product'. This paves the way for prospective patent licensees in the high technology industry to exploit this lacuna whereby it is argued that a refusal to licence a technology that is indispensable to follow-up innovation constitutes an abuse of dominance.[109]

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[106] Case C-418/01, *IMS Health GmbH & Co OHG v NDC Health GmbH & Co KG* [2002] ECR I-3401, para 29.
[107] *Ibid.* paras 44-45.
[108] *Ibid.* para 49.
[109] See Herbert Hovenkamp Mark Janis, Mark Lemley and Christopher Leslie, *'IP and Antitrust: An analysis of antitrust principles applied to intellectual property law*' (2nd edn., Aspen Law & Business 2010) 45-81; see also '*Follow-on innovation and intellectual property'*, <http://www.wipo.int/export/sites/www/policy/en/global_health/pdf/who_wipo.pdf> accessed 27 December 2014.

As EU case laws on refusal to supply stand, the jurisprudence of the Court is in favour of protecting the sacrosanct private law freedom of contract and property rights of undertakings. Hence, there is no general obligation on undertakings to supply or deal. For the prohibition in Article 102 TFEU to force compulsory licensing or a positive duty to supply, exceptional circumstances has to be demonstrated and the cumulative test in the twin decisions of *Magill* and *IMS Health* represents a considerably high threshold to be surmounted in most cases.

The exceptional circumstances factors also collectively represent a fine balancing exercise that the Court undertakes in order to weigh in the wider economic benefits and consumer welfare that may force an undertaking to compulsorily supply an essential facility[110] As the judgments indicate, this constitutes a fact-sensitive exercise that is undertaken on a case-by-case basis. Further, there is a lack of clear pronouncement by the Court as to whether the criteria apply equally in the context of refusal to licence intellectual property rights. As such, there are strands of uncertainty in the law.

d) The liberalisation in *Microsoft* and beyond

The *Magill/IMS Health* 'exceptional circumstances' test was again tested in *Microsoft v Commission*[111] and the Court of First Instance's ruling exacerbated the uncertainty. Microsoft refused to supply interoperability information relating to its ubiquitous PC operating system, the Windows. For a PC to operate efficiently within a network, the operating system of the PC must be sufficiently interoperable with the work group server operating system. By withholding interoperable information, this has the effect of hindering the functioning of third party work group server operating systems. The rarity of the vital interoperable information makes this a classic case study that demonstrates the application of the indispensability test.[112]

The unique facts of this case focus on the interoperability information as the essential facility that provides the indispensable input for competition in the downstream market. Having said that, the information originates from the

[110] See Christian Ahlborn, David Evans and Jorge Padilla, '*The Logic & Limits of the 'Exceptional Circumstances Test' in Magill and IMS Health'* (2004) 28 Fordham International Law Journal 1109; Joost Houdijk, '*The IMS Health Ruling: Some Thoughts on its Significance for Legal Practice and its Consequences for Future Cases such as Microsoft'* (2005) 6 European Business Organization Law Review 467, 491.

[111] [2007] ECR II-3601.

[112] See Adrianna Andreangeli, '*Interoperability as an 'essential facility' in the Microsoft case – encouraging competition or stifling innovation*?' (2009) 20 European Law Review 584; Gregory Werden, *Network Effects and Conditions of Entry: Lessons from the Microsoft Case* (2001) 69 Antitrust L.aw Journal 87.

Windows PC system, which makes the information an access facility of sort. Since Microsoft is undisputedly a dominant undertaking in the upstream PC market, there exists an element of cross leveraging of market power on the downstream market. Consequently, Microsoft's refusal to supply infringes the Article 102 prohibition.[113]

However, although the *Magill/IMS Health* criteria of indispensability, the elimination of competition and lack of objective justifications were applied, the Commission exceptionally exempted the criterion of 'the emergence of new products and services on a secondary market' on the facts in finding that Microsoft's refusal to supply infringed Article 102 TFEU.[114] Instead, a new balancing test based on the incentives to innovate was employed. Under this test, the respective efficiencies and negative effects of disclosure of interoperability information were balanced against each other. The Commission then concluded that on the whole, the disclosure would lead to increased competition in the industry. Consequently, dynamic efficiency in the form of more innovation is expected. Further, Microsoft's own incentives to innovate were relegated because the Commission opined that Microsoft's 'refusal does not directly impair competitors' ability to innovate, but rather the consumer's ability to benefit from such innovation, as well as the competitors' ability to earn a return on their innovation—and hence in the longer term their incentives to innovate'.

The Court of First Instance affirmed this although the Commission was rebuked for disregarding the *Magill/IMS Health* criteria:

> it is appropriate, first of all, to decide whether the circumstances identified in Magill and IMS Health…are also present in this case. Only if it finds that one or more of those circumstances are absent will the Court proceed to assess the particular circumstances invoked by the Commission.[115]

Nonetheless, although the Court sought to maintain doctrinal consistency by applying the *Magill/IMS Health* criteria, this was a forced interpretation on the facts that lowered the standard with most of the conditions being tinkered. Firstly, the Court held that the indispensability test would be satisfied if the facility is necessary to keep a viable competitor in the market or to persuade a new entrant into the market and the dominant undertaking constitutes the sole economically

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[113] See James Killick, '*IMS and Microsoft Judged in the Cold Light of IMS'* (2004) 1 Competition Law Review 7.

[114] See Kathryn McMahon, '*Interoperability: Indispensability and Special Responsibility in High Technology Markets*' (2007) 9 Tulane Journal Technology and Intellectual Property 123, 129.

[115] Case T-201/04, *Microsoft Corporation v Commission* [2007] ECR II-3601, para 336.

viable source.[116] Secondly, the Commission's *ex-ante* approach was endorsed whereby competition need not be completely eliminated from the market provided that there is a *risk of effective competition* being eliminated.[117]Thirdly, the new product requirement was significantly tweaked. Citing Article 102(b), the Court explained that if a refusal to supply interoperability information limited outputs, markets or technical development with the probable effect that consumer choices become limited, the test would be satisfied because a new product *could* have been prevented from emerging. In other words, the refusal relates to follow-on innovation.[118] As such, there is no need to show that a prospective licensee is introducing a specific new product into the market.

Lastly, to the horror of most patentees and innovators in the market, the court held that the mere existence of intellectual property rights does not in itself constitute an objective justification for a refusal to licence. This runs contrary to *Bronner* as the Court further explains that the degree of innovation or creativity in the right in question is insufficient in finding objective justification for refusal.[119]

In view of this reasoning, the Court triggered more uncertainty in the existing refusal to supply jurisprudence by accepting the Commission's decision that the exceptional circumstances expounded in *Magill* and *IMS Health* are not exhaustive. There may be other conditions that may indicate abuse such as the nature of the interoperability information in *Microsoft.*[120]In this regard, the particular factual context is determinative.

At present, the sum total effect of the judgments in *IMS Health* and *Microsoft* suggest that there are two different variations of legal tests to be employed depending on the facts. In the context of refusal to supply in high technology markets, the 'new product or services' criterion seems to be waived. Therefore, the tinkering of the *Magill/IMS Health* criteria produces an unsatisfactory divergence of legal tests when determining the precise application of Article 102 in refusal to supply cases. As such, the parameters of the prohibition are yet to be fully explored as the diversity of arguments also lends weight to the conclusion that the case laws are still developing in this area. As such, this is an area of law that continues to generate controversy.

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[116] *Ibid*, paras 369-436.
[117] *Ibid*, paras 560-564.
[118] *Ibid,* paras 643-645.
[119] *Ibid*, para 690.
[120] See Estelle Derclaye, '*Abuses of dominant position and intellectual property rights: a suggestion to reconcile the Community courts case law'* (2003) 26 World Competition 685 at 693-694; Daniel Bryne, '*Compulsory licensing of IP rights: Has EC competition law reached a clear and rational analysis following the IMS judgment and the Microsoft decision?'* (2007) 2 Journal of Intellectual Property Law and Practice 324.

Further, legal commentators have also debated the suitability of applying the existing refusal to supply principles to the licensing of patents as they seek to rationalise the Court's divergence in *Microsoft* from the *Magill/IMS Health* orthodoxy on this basis. This argument focuses on the type of intellectual property right in question. Whilst *Magill* and *IMS Health* concerns copyrights which are viewed to be 'weak' rights due to the relative lack of investment costs in developing such rights, the factual scenario in *Microsoft* and the smartphone wars concerns 'strong' rights involving patents.[121] Therefore, the element of fostering long-term innovation is more prominent in the latter case especially high technology markets in *Microsoft* which necessitates the circumstances to be more exceptional before a compulsory legal obligation to supply or license can arise to force access to the right in question. This is based on the rationale that if the law routinely forces a patent holder to license his patents, this can reduce the incentives to innovate and impede the future growth of technologies. This in turn will be detrimental to the wider public interests of consumers. In this respect, the reward and incentives system inherent in patent law must prevail.

As Microsoft argued impassionedly, the refusal to supply will confer it the incentive to continue to innovate and also encourage competing undertakings to undertake their own innovative activities in order to avoid being 'left behind'.[122] Secondly, Microsoft attacked the vagueness in the Commission's failure to set out clear guidelines in applying the balancing test and also omitting to quantify the negative impact on competitors, who will simply have to wait to see what technology they can obtain under a licence rather than invest, research and develop their own technology.[123]

This leads to the decision being criticized for ignoring the strong nature of the intellectual property right in question and Microsoft's evidently more valuable intellectual efforts in developing the technology in question. The value of the intellectual property right in Microsoft is derived from costly investments in research and development. Therefore, *a fortiori*, the more robust approach in

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[121] See Ian Forrester, '*EC competition law as a limitation on the use of IP rights in Europe: is there reason to panic?*' in Claus Dieter Ehlermann and Isabela Atanasiu, '*European Competition Law Annual 2003. What is an Abuse of a Dominant Position*?' (Hart Publishing 2006); James Venit, '*Article 82 EC: Exceptional Circumstances: The IP/Antitrust Interface After IMS Health'* in Claus Dieter Ehlermann and Isabela Atanasiu, *'European Competition Law Annual 2005: The Interaction Between Competition Law and Intellectual Property Law'* (Hart Publishing 2007).

[122] *Ibid,* para 670.

[123] For a defence of the Commission's incentives to innovate test and the cross-leveraging theory, see François Lévêque, '*Innovation, leveraging and essential facilities: Interoperability licensing in the EU Microsoft case'* (2005) 28 World Competition 71, 78-80.

Magill and *IMS Health*, cases that involved weaker rights, should have been adopted instead.[124]

However, on a neutral perspective, one should also note the unique factual circumstances in *Microsoft*. Microsoft was not an ordinary dominant undertaking like any other. It is super-dominant in the PC operating systems market with an overwhelming 90% market share. Further, this continuing market power is enduring which raises significant barriers to entry due to the network effects. Therefore, doctrinal consistency can still be achieved when one is reminded of the Court's pronouncement in *Michelin* that dominant undertakings are invested with a *special responsibility* not to abuse the competitive structure of the market. Possessing a 90% market share most certainly bound Microsoft to this responsibility.

Further, the nature of its interoperability information means that Microsoft can also leverage its monopoly on the PC market to a secondary market involving group server operating systems. In this regard, it is interesting to note the Court's diametrically opposite approach in *Microsoft* from the transatlantic position in *Trinko* whereby Chicago economic theories have rejected the leveraging theory and argued that cross leveraging of market power is irrational.

On a wider perspective, this decision also revisits the dynamism of the interface between intellectual property and competition law especially the relationship with the collective goal of innovation. The Court's different interpretation of innovation policy from Microsoft's arguments reasoned that disclosure encourages follow-on innovation that lowers barriers of entry into the market. This will allow more competitors to innovate and would on the whole, be a better gamble than the risk of allowing Microsoft to play it all alone. Indeed, it is lonely at the top and being super-dominant as it is, Microsoft's argument of having the incentive to innovate by maintaining its monopoly of interoperable information rang hollow.[125]

Although none of the factual scenarios thus far directly engaged the refusal to licence a SEP in the context of standardization and none of the intellectual property cases discussed concerns a refusal to licence a patent, the facts of *Microsoft* concerning interoperable information bear a close resemblance to patents in the smartphone wars. This is because product interoperability is an element that

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[124] See Vassilis Hatzopoulos, '*Refusal to deal: the EC essential facilities doctrine'* in Giuliano Amato and Claus Dieter Ehlermann*, 'EC Competition Law: A Critical Assessment'* (Hart Publishing 2007) 369.

[125] See Pierre Larouche, '*The European Microsoft Case at the Crossroads of Competition Policy and Innovation'* (2008) 75 Antitrust Law Journal 601, 611; Christian Ahlborn and David Evans, *The Microsoft Judgment and its Implications for Competition Policy towards Dominant Firms in Europe*' (2008) 75 Antitrust Law Journal 887, 889.

defines high technology markets. Similarly, in the smartphone wars, SEPs are rare patents that only operate its best within a created standard. Despite the inconsistency in applying the *Magill/IMS Health* principles and the criticisms from a policy perspective, the tenor of the Court’s decision in *Microsoft* bodes well for Article 102 to be employed in the resolution of the smartphone wars since the Court is prepared to adopt a more liberal approach in the context of interoperability and high technology industry where standards confer considerable market power on dominant undertakings that may stifle competition.

As such, it would be interesting to observe whether the Court of Justice will exploit the opportunity in future case laws to reconcile the existing principles in its refusal to supply jurisprudence to resolve the vexatious infringement challenges in the patent wars.

(i) The Orange Book antitrust defence

Notwithstanding the current uncertainty in the existing case laws on refusal to supply, the jurisprudence under Article 102 TFEU demonstrates that EU competition law possesses the necessary tools and legal framework to punish unscrupulous SEP holders who engage in abusive practices by applying for injunctions that produce the patent hold-up effect post-standardisation, with a view to extracting unreasonable royalty payments.

However, as the complexity of the arguments employed in the smartphone wars show, the difficulty lies in ascertaining the true intentions of not only the SEP holder but also the alleged infringer. This is because the alleged infringer can often argue conveniently that he is a willing licensee of the SEPs and this functions as a defence of sort to the patent infringement claim in view of the FRAND licensing commitment that contractually binds the SEP holder. Thus, there must be a legal test to determine the true intentions of the parties.

Currently, Germany has the most developed jurisprudence that deals with the circumstances in which an antitrust defence raised by alleged infringers of SEPs can succeed. Therefore, this creates a friendlier legal environment for patent holders to defend their rights. In *Re Orange Book Standard*[126], the German Federal Court of Justice has sanctioned the defendant’s use of an antirust defence of anti-competitive behaviour under Article 102 TFEU to oppose the grant of an injunction

[126] Docket No. KZR 39/06, (Bundesgerichtshof, German Federal Court of Justice—BGH, May 6, 2009).

in a patent infringement claim involving a standard essential patent if the defendant can show that he has tried to obtain a licence of that patent under FRAND terms.[127]

Although this defence is available in principle, three strict conditions were expounded for its application. Firstly, the patentee must command a dominant position in the market. Secondly, the alleged infringer must have 'made an offer, ready for acceptance, on contractual conditions, which the patent holder cannot refuse without thereby treating the party seeking a license unequally without good cause as compared with similar enterprises or impeding him inequitably'. In other words, the alleged infringer must show that he has previously made a binding and unconditional offer which is independent of the court's assessment of the patent infringement and which the patentee cannot reject without violating the prohibition of discrimination or anti-competitive behaviour. This means that if the licensing offer is conditional on the court's determination of the patent infringement claims, the defence is precluded by the prospective licensee in challenging the patentee's applications for injunctive relief, nor is the patentee obliged to accept such an offer. However, the defendant need not specify a precise royalty amount in its offer and can draft a clause that puts the determination of the fees in the equitable discretion of the patentee.

Thirdly, the prospective licensee must perform acts that demonstrate its genuineness in satisfying and anticipating its contractual obligations. This can be done through the regular keeping of regular royalty reports based on use of the patent in question. The licensee should also make arrangements to secure licence fees arising from those reports by setting up an escrow account that can be transferred to the patentee at a later date pursuant to a hypothetical license agreement.[128]

Further, from a contextual perspective in expounding these principles, the German Federal Court demonstrated a fine balancing exercise of the parties' rights. For example, the Court explained that whilst an alleged infringer cannot be denied a defence in antirust terms against any unscrupulous abuses by patent holders who bring a patent infringement claim, the patent holder must also in principle be allowed to apply for an injunction to estop any infringements of its patents. Similarly, although the patent holder must accept the prospect of being treated as if it had granted a licence of its patents, the alleged infringer must also act as if it had

[127] See Nicolas Petit, '*Injunctions for FRAND-Pledged SEPS: The Quest for an Appropriate Test of Abuse under Article 102 TFEU*', <http://awards.concurrences.com/IMG/pdf/ssrn-id2371192.pdf> accessed 27 December 2014.

[128] See Helen Hopson and Pat Treacy, '*Rules of the Orange Book*', <http://www.bristows.com/articles/rules-of-the-orange-book> accessed 27 December 2014.

obtained the license to use the patents.[129]

Nonetheless, it must be noted that the mere commencement of legal action for patent infringement cannot in itself amount to an abuse of dominance contrary to Article 102 although the court may exercise its discretion not to grant injunctive relief as discussed above.[130] Further, in *Consten & Grundig*, the Court has stated in categorical terms that EU competition law is not concerned with interfering with the existence of intellectual property rights, an area that is under the purview of national law. However, the exercise of those rights and exploitation thereof is subjected to antitrust scrutiny under the existing EU competition law framework.[131]

As such, in *ITT Promedia v Commission*[132], the General Court held that bringing a legal action constitutes a fundamental right to access to justice and cannot in itself be classified as an antitrust abuse of dominant position. Article 102 TFEU will only apply if sham litigation is brought in bad faith such as when the claim is 'manifestly unfounded' designed to harass another party into submission and is brought with the aim of eliminating competition from the market.[133] The courts are to adopt a strict interpretation in assessing whether these conditions are satisfied.[134]Hence, undertakings are not deprived of their access to the courts by reason of their dominant position.

Having said that, when the patent infringement claim is viewed from a holistic perspective whereby there is also an application for an injunction to estop the use of the allegedly infringed patents, the commencement of legal action by a patentee is apt to produce a hold-up effect that impedes innovation and growth to the detriment of consumers. Therefore, this creates the requisite scope for an antitrust defence under Article 102 to apply. In this regard, the *Orange Book* conditions play a pivotal role in regulating the application of this defence to prevent its abuse by irresponsible infringers who may conveniently rely on the defence in bad faith. When the law is precise, the villainy of the parties can be identified and dealt with

[129] See Torsten Körber,*'Standard Essential Patents, FRAND Commitments and Competition Law: An Analysis Under Particular Consideration of the German 'Orange Book Standard'* (Nomos Verlagsgesellschaft 2013).

[130] See Eirik Østerud, '*Identifying Exclusionary Abuses by Dominant Undertakings Under EU Competition: the Spectrum of Tests'* (Kluwer Law International 2010) 138.

[131] See Case COMP/39.246 *Boehringer*, initiated in 2007, which concerned the alleged misuse of the patent system in order to exclude potential competition.

[132] [1998] ECR II-2937.

[133] Case T-111/96, *ITT Promedia NV v Commission of the European Communities* [1998] ECR II-2937 para 60.

[134] This test was also applied in Case T-321/05, *AstraZeneca v. Commission* [2010] ECR II-2805 and Case T‑119/09, *Protégé International Ltd v European Commission and Pernod Ricard SA*, Judgment of the General Court (Seventh Chamber) of 13 September 2012 (not yet published).

accordingly. If the patentee is indeed refusing to negotiate FRAND terms, then besides the breach of a contractual term in the standardization agreement, this amounts to a constructive refusal to license that potentially constitutes an antitrust violation under Article 102 by the patentee. The conditions can also help establish whether it is the infringer who is unwilling to genuinely negotiate for a license and merely creates unnecessary excuses to delay and frustrate the infringement claim. This would then necessitate the appropriate response under intellectual property law, free from the intervention of competition law.

Notwithstanding the value of the *Orange Book* principles, it suffers from a territorial shortcoming of being only localized in its application in Germany. This is because the test has yet to be validated or endorsed by the Court of Justice. As such, it does not bind the courts of other member states. Further, the grant of an injunction is essentially an equitable relief in English law. Hence, equitable principles that governs the grant of an injunction continue to apply with the result that even if the *Orange Book* principles are adopted with similar effect by an English court, that does not necessarily mean that the court will grant an injunction in circumstances whereby the *Orange Book* principles are not satisfied by the infringer on a given set of facts.[135]

(ii) The German preliminary reference in *Huawei*

In light of the pre-existing legal position discussed above, the Court of Justice has now been presented with the opportunity to determine whether an alleged infringer of a SEP is able to raise an antitrust defence in Article 102 to oppose the grant of an injunction in patent infringement claims by SEP holders.

The Düsseldorf Regional Court in Germany has made a preliminary reference in *Huawei v ZTE Corporation*[136], inviting the Court of Justice to rule on the application of Article 102 TFEU as an antirust defence to patent infringement claims that has characterised the smartphone wars.[137] The facts of the case are unexceptional. Both Huawei Technologies and ZTE Corporation are members of the ETSI, a standard-setting organisation. Huawei alleges that ZTE had infringed it patents that are essential for the 4G/LTE mobile communications standard. As Huawei was bound by a FRAND licensing commitment, both parties have been

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[135] See Cristian Donle, '*Germany: The Case Law Of The BGH's 'Orange Book' Is Put To The Test'*, <http://www.mondaq.com/x/240578/Antitrust+Competition/he+Case+Law+Of+The+BGHs+Orange+Book+Is+Put+To+The+Test> accessed 27 December 2014.

[136] Case C-170/13, a preliminary ruling requested from the Landgericht Düsseldorf (Germany) lodged on 5 April 2013.

[137] See Article 269, Treaty of the Functioning of the European Union which sets out the framework for a preliminary reference.

negotiating for payment of royalties for months without success. When Huawei sought an injunction for patent infringement, ZTE raised an antitrust defence arguing that Huawei's claim and seeking for an injunction without granting it a license of the SEPs on FRAND terms constitutes an abuse of its dominant position contrary to Article 102 TFEU.

The German court felt the need to refer the case to the Court of Justice because of the inconsistencies in its existing *Orange Book* precedent and the Commission's 2012 Statements of Objection to Samsung which takes the preliminary view that:

> The seeking of an injunction for SEPs can constitute an abuse of a dominant position in the exceptional circumstances of this case – where the holder of a SEP has given a commitment to license these patents on FRAND terms and where the company against which an injunction is sought is willing to negotiate a FRAND licence.[138]

If the Commission's approach is applied, ZTE would be able to show that it has been negotiating the FRAND terms with Huawei for months and could therefore satisfy the 'willingness' test which is evidently of a much lower threshold to satisfy than the *Orange Book* principles. Therefore, five questions were referred to the Court of Justice.

Firstly, does the seeking of an injunction by a SEP holder who has declared his willingness in the standardisation agreement to grant a license to all third parties on FRAND terms violates Article 102 especially when the infringer has also declared his willingness to negotiate such a licence or would violation only be presumed if the infringer has made a binding, unconditional offer to the SEP holder which the latter cannot refuse without inequitably obstructing or discriminating the infringer *and* if the infringer, in anticipation of the license already complies with the contractual obligations regarding the past usage of the patent?

Secondly, if violation of Article 102 is presumed by reason of the infringer's willingness to negotiate, are there any substantive and/or temporal criteria for the willingness to negotiate test to be satisfied? Can willingness be presumed if the infringer merely orally declares his intentions to negotiate in general terms or must the infringer offers specific terms and conditions under which he is willing to enter into a license agreement?

Thirdly, if a violation of Article 102 should require the submission of a binding and unconditional offer by the infringer to conclude a license agreement, is there any

[138] European Commission, *Samsung—Enforcement of ETSI standards essential patents (SEPs)*, MEMO/12/1021, <http://europa.eu/rapid/press-release_MEMO-12-1021_en.htm> accessed 27 December 2014.

specific substantive and/or temporal criteria to be satisfied in relation to the offer? For example, does the offer need to incorporate all typical commercial terms included in license agreements in the relevant industry practice? Further, can the offer be conditional upon the actual validity of the SEPs and/or actual use?

Fourthly, if a violation of Article 102 should require the infringer's satisfaction of obligations arising from the hypothetical license that is yet to be granted, are there any specific criteria to be satisfied in relation to such acts? For example, should there be an obligation for the infringer to pay royalties by means of a security deposit?

Fifthly, does the test to establish a presumed violation of Article 102 by a SEP holder also applies to other remedies for patent infringement such as damages or the withdrawal of infringing products?

The German court also added its own opinion on the issue by arguing that an infringer's mere *willingness to negotiate* is insufficient to support a finding of an abuse of dominant position regardless of the patent holder's declaration before the SSO that he is willing to license the SEP to third parties.[139] As one can observe, the referral questions are specifically targeted at the precise threshold in which the willingness to negotiate test is satisfied, assuming the Court of Justice countenance the test in the first place.

Nonetheless, this paper argues that there are inherent difficulties in the willing licensee test introduced by the Commission. Firstly, the test is vague because it did not set out the precise conditions for a prospective licensee to satisfy to be considered a willing licensee. The Commission did not offer any guidelines to determine the application of the test in practice. This simplicity ignores the complex arguments that are present in the FRAND-based litigation since an alleged infringer can play the role of a villain who simply argues that his initial negotiations, however brief, for a license with the patentee makes him a willing licensee when he has no genuine intentions in the first place to take a license. For example, he can offer royalties which does not reflect the market value of the patents relative to the profits being made out of its own manufacture of the end products such as smartphones. Any patentee will almost inevitably reject such an offer. Hence, the willing licensee test cannot ascertain this genuineness and deter any potential villainy in the situation. Secondly, the test did not adequately consider the interests of the patent holder and the wider impact on the patentee's

[139] Sven Gallasch, 'The referral of Huawei v ZTE to the CJEU: determining the future of remedies in the context of standard-essential patents' (2013) 34 European Competition Law Review 443, 444-445.

incentives to innovate in the near future. If the test is conveniently applied, the patentee is likely to lose all incentives to innovate.

However, although the test is flawed and requires refinement, that does not negate the need for antitrust paternalism in resolving the vexatious FRAND-based litigation in the smartphone wars. It only means that the Commission's execution did not quite match the ambition.

Pending the reference in *Huawei*, it is helpful to note the guidelines issued by the Commission. In a document accompanying the Commission's Statements of Objections to Google's Motorola Mobility based on a complaint lodged by Apple in February 2012, the Commission elaborated on the 'willing licensee' test relating to injunctions obtained by SEP holders:

> The Commission is of the preliminary view that Apple's willingness to enter into a FRAND licence manifested itself in particular by its acceptance to be bound by a German court's determination of a FRAND royalty rate. The Commission's preliminary view is that the acceptance of binding third party determination for the terms of a FRAND licence in the event that bilateral negotiations do not come to a fruitful conclusion is a clear indication that a potential licensee is willing to enter into a FRAND licence. This process allows for adequate remuneration of the SEP-holder so that seeking or enforcing injunctions is no longer justified once a potential licensee has accepted such a process.
>
> By contrast, a potential licensee which remains passive and unresponsive to a request to enter into licensing negotiations or is found to employ clear delaying tactics cannot be generally considered as 'willing'.
>
> In addition, in the Commission's preliminary view, the fact that the potential licensee challenges the validity, essentiality or infringement of the SEP does not make it unwilling where it otherwise agrees to be bound by the determination of FRAND terms by a third party. In the case at hand, Motorola required clauses that prohibited such challenges by Apple, even after Apple had agreed to be bound by a third party determination of the FRAND terms. The Commission's preliminary view is that it is in the public interest that licensees should be able to challenge the validity, essentiality or infringement of SEPs.[140]

[140] See European Commission, *Antitrust: Commission sends Statement of Objections to Motorola Mobility on potential misuse of mobile phone standard-essential patents – Questions and Answers*, MEMO/13/403, <http://europa.eu/rapid/press-release_MEMO-13-403_en.htm> accessed 27 December 2014.

Further, in the recent conclusion of its twin investigations against Motorola Mobility and Samsung in 2014, the Commission maintains that the seeking of SEP-based injunctions that are related to FRAND licensing terms is likely to constitute an abuse of dominant position contrary to Article 102 TFEU. The Commission based this conclusion on two reasons. Firstly, the Commission applied the 'willing licensee' test and found that Apple, the alleged infringer was willing to negotiate a license for the SEPs. Secondly, the Commission acknowledged that although the seeking of an injunction for ordinary patent infringements is the legitimate right of the patentee, in the context of standardisation and SEPs, the wider interests of consumers demands that the patentee refrain from doing so if the alleged infringer is a willing licensee. This is because the consequent hold-up effects can impede follow-on innovation and prevent ubiquitous products from entering the market. As a result, consumers will suffer detriment.[141] It is also helpful to note the Commission's statement of principle that endorses antitrust paternalism:

> The so-called smartphone patent wars should not occur at the expense of consumers. This is why all industry players must comply with the competition rules. Our decision on Motorola, together with today's decision to accept Samsung's commitments, provides legal clarity on the circumstances in which injunctions to enforce standard essential patents can be anti-competitive. This will also contribute to ensuring the proper functioning of standard-setting in Europe. While patent holders should be fairly remunerated for the use of their intellectual property, implementers of such standards should also get access to standardised technology on fair, reasonable and non-discriminatory terms. It is by preserving this balance that consumers will continue to have access to a wide choice of interoperable products.[142]

In view of the Commission's robust stance, the Court of Justice's guidance is needed to refine the much-vaunted 'willing licensee' test to prevent the antitrust defence from being abused by alleged infringers as a delaying tactic. Further, to maintain doctrinal consistency in the case laws, the Court is also expected to reconcile the existing *Magill/IMS Health* criteria post-*Microsoft* and the test used to establish a FRAND-based antitrust defence.

(iii) Advocate-General Wathelet's opinion in *Huawei*

[141] See European Commission, *Antitrust: Commission finds that Motorola Mobility infringed EU competition rules by misusing standard essential patents,* IP/14/489, 29 April 2014; European Commission, *Antitrust: Commission accepts legally binding commitments by Samsung Electronics on standard essential patent injunctions,* IP/14/490, 29 April 2014.
[142] *Ibid*.

In view of the Commission's robust approach in its Samsung decision and the anticipation surrounding the German Dusseldorf's preliminary reference in *Huawei*, it is interesting to study Advocate General Melchior Wathelet's recently issued opinion in the case.[143] On the whole, the Advocate General's neat opinion injects further momentum into the movement towards establishing a solid regulatory framework for antitrust paternalism to govern licensing disputes which are encumbered by a FRAND commitment. The opinion clarifies the Commission's willing licensee test and sets out clearer boundaries to the application of the antitrust defence in Article 102 TFEU.

As a starting point, a refusal of SEP proprietors to licence their SEPs on FRAND terms amounts to constructive refusal and can constitute an abuse of dominance contrary to Article 102 TFEU. The opinion then presumes that the proprietors of SEPs are in a dominant position. However, this presumption is rebuttable if clear and substantial evidence to the contrary can be produced by the SEP proprietors. Hence, national courts must make the assessment of dominance on a case-by-case basis. Nevertheless, it is observed that although no blanket assumption of dominance can rightly be made, one can surely appreciate that by definition, SEPs constitute a market on its own and such patents are indispensable to a particular standard. Therefore, with this narrowly defined market, in most circumstances, if not all, the SEP proprietors are almost always in a dominant position *vis-à-vis* their rivals unless a suitable patent constituting a new technology is made available as an alternative to the standard, in which case the standard containing the SEPs may be rendered obsolete.

The opinion also directs the steps that must be taken by the parties with respect to the licensing of a patent encumbered by a FRAND commitment. The duty is first set upon the SEP proprietor to make a written offer to any alleged infringer on clear terms especially with a proposed royalty are for the licensing of the SEPs and how this amount is computed. Further, the offer must also include all the terms commonly included in a licence as per the industry in question. Therefore, an offer in principle is not sufficient for the SEP proprietor

If the SEP proprietor can satisfy this initial step, the onus then shifts to the alleged infringer to prove that he or she is a 'willing licensee' by either providing a considered response to the proposed licensing terms by the SEP proprietor. If the alleged infringer rejects the offer, detailed reasons must be provided and a reasonable counter-offer presented. Interestingly, the Advocate General held that at

[143] See the Court of Justice's Press Release No. 155/14, <http://curia.europa.eu/jcms/upload/docs/application/pdf/2014-11/cp140155en.pdf> accessed 27 December 2014.

this stage of possible disagreement over the FRAND rate, the alleged infringer may apply to the court or arbitration tribunal to help determine a FRAND rate.

Nevertheless, if this step is opted for, then the SEP proprietor may demand that alleged infringer provide either a bank guarantee for the payment of royalties or to deposit a provisional amount of money to the court or arbitration tribunal with respect to the past and future use of the patents. This is to ascertain the genuine intentions of the alleged infringer and ensure that infringers do not conveniently abuse the court process for the purposes of delaying time at the expense of SEP proprietors.

In particular, the Advocate General reminded prospective licensees not to fall short of their commitment to take a license. In other words, they must demonstrate that they are objectively ready and willing to negotiate a licence. If their actions prove to be deliberately tactical and dilatory, the antitrust defence in Article 102 cannot be relied upon in opposing the application for an injunction by SEP proprietors. At the same time, prospective licensees are at liberty to challenge the validity of the SEPs or to dispute the royalty rates for the licensing of the patents proposed by the SEP proprietors. Such actions will not fault prospective licensees and prevent them from relying on the antitrust defence in Article 102 TFEU.

In respect of these working guidelines for a negotiation of a license on FRAND terms, the opinion excels by achieving a fair balance between the rights of the SEP proprietors and the prospective licensees. Whilst SEP proprietors are not precluded from obtaining injunctive relief with respect to their patents and infringers are not at liberty to ignore the rights of the SEP proprietors under the guise of a FRAND licensing commitment, there is a clear duty on the part of the SEP proprietors to take specific steps to offer their patents on FRAND terms and to stipulate as clearly as possible the proposed royalty rate. This requirement to put a specific amount on the table is seen to be a positive step forward in resolving many disputes.

The opinion is also pragmatic and makes good commercial sense as it addresses the complaints of the parties on both sides. In practice, SEP proprietors have often alleged that the law and infringers do not respect their patents and the heavy investment they make towards the creation of new technologies. As a result, this deters them from investing further into new research of technologies. In response, alleged infringers of SEPs have argued that SEP proprietors are keen to exploit their patents and extract exorbitant royalties from them in an unfair manner. If the Advocate General's opinion is adopted by the Court and given legal effect[144], this will help reduce the amount of disputes between the parties and help them focus

[144] Although the opinions of Advocate Generals are not binding on the Court of Justice, judges of the Court of Justice generally adopt their line of reasoning.

instead on the issue of what constitutes a FRAND rate. In this respect, amidst the bristling of legal technique in the Advocate General's opinion where the EU's much vaunted antitrust laws are employed to blend with practical commercial reality, one can appreciate the true value of his opinion in its ability to offer a viable solution in the form of negotiating steps that the parties are expected to undertake as compared to the half-hearted and diverging approaches of past national court decisions. This helps to strengthen a move towards antitrust paternalism in regulating the disputes by parties *vis-à-vis* SEPs encumbered by FRAND licencing commitments.

It is also noteworthy that the guidelines set out by the Advocate General raises the bar significantly higher in obtaining injunctive relief than what the German Federal Court previously held in their celebrated *Orange Book* decision. The existing framework for an antitrust defence to operate based on Article 102 TFEU is currently set out in the *Orange Book* principles which favour SEP proprietors whereby it is relatively easier to obtain injunctive relief against any patent infringement. In this respect, one can appreciate the Advocate General's disapproval of the *Orange Book* principles in regulating FRAND licensing disputes moving forward. Instead, the Advocate General endorses the Commission's notional 'willing licensee' test that was adopted in the Samsung decision and refined its boundaries for future use.

On a final point of deliberation, in the likely event that the Advocate General's opinion is given legal effect by the Court of Justice, its allowance for alleged infringers to refer determination of a FRAND rate to the court and arbitration tribunal shifts the paradigm for future disputes to centre upon. In this respect, a Judge Robart-style judgment from the EU courts is bound to occur as the smartphone wars develops to a new dimension.

V. Analysis

Whilst the future is not ours to see, it would be interesting to note the potential benefits of applying Article 102 TFEU as an antitrust solution to the smartphone wars. Firstly, this will give the Court of Justice the opportunity to clarify the existing principles in its refusal to supply case laws post-*Microsoft*. Secondly, the inconsistencies between the *Orange Book* principles and the Commission's proposed 'willing licensee' test can also be reconciled. If the *Orange Book* principles are subsumed within existing EU antitrust jurisprudence, this will also discourage forum shopping of patent claims being brought by SEP holders in Germany. In this regard, a test case setting out the precise circumstances when the antirust defence in Article 102 TFEU can be employed is sorely needed to prevent forum shopping by SEP holders in Germany. A single unified test will also serve to harmonise the application of competition law across all European jurisdictions.

Thirdly, it would be a fitting solution to the smartphone wars where the failure to contractually ascertain a precise FRAND rate and the unwillingness of judges to set out legal principles to determine its assessment on a given set of facts have allowed the vexatious patent infringement claims in the smartphone wars to rage on without end. Therefore, it is argued that the contractual solution in the form of a FRAND term is flawed and suffers from an inherent shortcoming in balancing out the dangers of abuse of the standardisation process that threatens the integrity of a system that has inarguably produced many practical benefits to the technology industry. An antitrust solution is thus justified because it can produce a firm judicial solution that will penalise SEP holders if there is a genuine case of a refusal to licence. This can be proven in practice through clear guidelines expounded by the Court. This would necessarily mean that the Court strongly advocate the use Article 102 TFEU as a possible sanction.

This would have a profound effect in practice because the potential for antitrust scrutiny can serve as a powerful deterrent to prevent further abuses of the patent system. This would force the parties to negotiate their licensing agreements more carefully. Both parties will also be pressured to achieve a workable solution in an amicable manner without abusing the court process. This is reinforced by the fact that the parties to the claims are major players in the technology markets, being global firms that possess substantial bargaining strength. Therefore, a robust solution through competition law risks no chances of there being any unfairness or any party being unduly disadvantaged.

Previously, in the interim period pending final judgment, an alleged infringer can continue the manufacture the end products and sell them by using the SEPs without the grant of an interim injunction by the court due to the antirust defence being raised. This has caused many innovators in the industry to cry foul over this alleged injustice to their commercial interests. However, once the Court expound a legal test to determine who is a willing licensee and what steps must a prospective licensee take to demonstrate genuineness in negotiating a licence on FRAND terms, the villainy of both parties will be resolved as the scope for abuse is reduced.[145] The SEP holder can no longer refuse to accept reasonable royalty payments for its patents. The alleged infringer must also now pay royalties for the use of the patents and can no longer raise an antitrust defence in a malicious bid to prolong the litigation, in the hope that the patent holder will exhaust itself out of the patent infringement claim. As such, antitrust paternalism employed in the smartphone wars will serve to discipline all players in the industry to ensure that

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[145] For arguments defending the Commission's 'willing licensee' test, see Alexandros Zografos, '*The SEP Holder's Guide to the Antitrust Galaxy: FRAND and Injunctions'* (2014) 37 World Competition 53.

they responsibly negotiate the terms of the royalty rates of the SEPs in a diligent manner without leaving it to chance.

An antitrust solution is also preferred to the sole reliance of a judicial determination of FRAND since it avoids the sheer complexity of a tedious factual determination process that wastes the court's time and resources. Although American judges have demonstrated that a judicial determination of FRAND is possible, the exercise involves endless cross-examination of economists and bundles of economic evidence presented to the judge. This arguably consumes much time and money. As such, it is preferable if the parties themselves can agree contractually to a royalty rate.

The potential for antitrust scrutiny also shifts the burden to dominant patentees and vest a special responsibility on them to be more amicable and realistic in the negotiations for royalties. On the flipside, the dangers of whittling down innovation is very real as innovators may be less inclined to invest funds to develop new technologies considering the compulsory legal obligation to license and their lack of bargaining strength in demanding royalties. However, it is argued that this danger is being cushioned in the context of standardization in view of the greater value that created standards confer on individual patents as opposed to stand-alone free patents which are collected in a pool or intellectual property rights that are being developed solely from an undertaking's own resources such as Microsoft's interoperable information.

In light of this, it is argued that the criticisms against antitrust intervention in *Microsoft* should not apply in the context of standardisation because of the marked difference in the factual scenarios in *Microsoft* and SEPs, especially the unique features of the standardisation process. Unlike the interoperability information in *Microsoft* where it is the sole investment of resources by Microsoft without external aid from third parties that produced the essential input, the same cannot be said of SEPs. In the latter case, it is the process of creating a standard itself that has contributed significantly to the value of the patent in the first place, thereby transforming it into a standard essential patent. Without standardisation, the SEPs would not have enjoyed the same value as it commands. Hence, the strength of the incentives to innovate argument that slammed the *Microsoft* decision is lacking.

Further, the case for antitrust paternalism is fortified when the SEP holder has given a prior contractual commitment to license its patents on FRAND terms once the standard is created. [146] If this contractual obligation is then being reneged where there is a licensee willing to negotiate such terms, there is no moral credibility for

[146] See Philippe Chappatte, '*FRAND commitments – the case for antitrust intervention'* (2009) 5 European Competition Journal 319.

the SEP holder to argue innovation as a reason to resist the application of antitrust sanctions. Therefore, antitrust paternalism in forcing compulsory access to the SEPs is justified in this context. The only issue in doctrinal terms is whether the tweaked criteria in *Microsoft* should apply in determining this antitrust intervention or whether the *Orange Book*/willing licensee test should apply instead.

In the final analysis, standardisation in the smartphone wars presents a unique factual context within the existing EU's refusal to supply jurisprudence. This is because it involves the element of follow-on innovation in high technology markets that makes the cross-licensing of patents an extremely crucial to future innovation. Further, SEPs are indispensable patents owing to the process of standardisation itself.[147] As such, this requires the formulation of a bespoke test. In the interests of doctrinal consistency in the case laws, this paper argues that the Court of Justice now possesses the opportunity in *Huawei* to reconcile the existing principles in its refusal to supply jurisprudence and introduce certainty in the law. This concerns the traditional exceptionality test that has been refined in *Magill/IMS Health* and a much-criticised variation in *Microsoft.* In the context of infringement of SEPs where an injunction is being sought, since the *Orange Book* test is not fundamentally distinct from the Commission's proposed 'willing licensee' test, the Court of Justice can introduce a new limb in its jurisprudence of Article 102 by refining and adopting the principles collectively.

VI. Conclusion

The common objectives of patent law and competition law aim to foster long-term innovation in the industry and produce efficiencies that ensure consumer welfare. However, potential conflict can arise when the exercise of temporary monopoly conferred by patent law is abused. In high technology markets that is characterised by the element of follow-on innovation, the potential for abuse is significant when patentees withhold the licensing of their patents to extract excessive royalties. This produces the vicious patent hold-up effects. Although the industry practice of standardisation has managed to minimise the problems of royalty-stacking and patent hold-up by creating smooth interfaces for complementary technologies, industry players have long foreseen the dangers of the hold-up problem recurring when patentees misbehave with their monopoly post-standardisation.

[147] See Christian Koenig and Ana Trias, '*Some Standards for Standardisation: A Basis for Harmonisation and Efficiency Maximisation of EU and US Antitrust Control of the Standard-Setting Process'* (2010) 32 European Intellectual Property Review 320.

Consequently, the FRAND licensing commitment was conceived as a contractual solution to the antitrust abuses that may arise. However, the imprecise definition of FRAND has given rise to the smartphone wars whereby injunctions were sought in repeated patent infringement claims, thereby producing the debilitating hold-up effects once again. As this threatens to impede innovation, a legal framework for antitrust paternalism is justifiably needed to regulate patent hold-up in the industry.

The Commission has since threw down the gauntlet on the Court of Justice by repeatedly pushing for stronger antitrust sanctions in its decisions to counter the injunctions sought by SEP holders who are bound by FRAND licensing commitments. The firm move by the Commission is also equipped with a crude legal test based on the concept of a willing licensee. This demonstrates the Commission’s willingness to pursue and punish unscrupulous SEP holders who abuse their dominant position, with a stern warning issued to Motorola Mobility in its recent decision not to seek for an injunction for its SEPs and by accepting binding commitments from Samsung to negotiate a license with Apple Inc.

As the current legal position stands, the Commission and the courts are not in favour of granting injunctions to SEPs that are encumbered by a FRAND licensing commitment. Provided there is a willing licensee, the SEP holder is precluded from applying for injunctive relief and this will influence the SEP holder to negotiate a FRAND royalty rate amicably. Nonetheless, although antitrust paternalism is the best way forward in resolving the impasse in the smartphone wars, in light of the inherent shortcomings of the FRAND licensing commitment, a clear legal test is needed to direct a surgical antirust response to the hold-up problems. Further, in light of the current uncertainties in the refusal to supply jurisprudence since its heavily criticised *Microsoft* decision, the time has come for the Court to clarify the principles and achieve doctrinal consistency in the case laws.

Interestingly, the *Huawei* preliminary reference represents the first occasion for the Court of Justice to address the application of Article 102 TFEU and the refusal to supply principles in the context of patent licensing and standardisation in the smartphone wars. This promises to be an interesting sequel to *Microsoft* in light of innovation in high technology markets.