

**Standard-essential patents: FRAND
commitments, injunctions and the
smartphone wars**

Alison Jones

The Dickson Poon School of Law
Somerset House East Wing
Strand Campus
The Strand, London
WC2R 2LS

King's College London Dickson Poon School of Law
Legal Studies Research Paper Series, paper no. 2014-19

This paper can be downloaded without charge from:
<http://ssrn.com/abstract=2394495>

**STANDARD-ESSENTIAL PATENTS: FRAND COMMITMENTS,
INJUNCTIONS AND THE SMARTPHONE WARS**

Alison Jones*

**This is a pre-peer reviewed version of an article published in (2014) 10(1)
European Competition Journal 1-36**

A.	INTRODUCTION	2
B.	BACKGROUND	3
1.	THE BENEFITS AND RISKS OF STANDARD SETTING	3
2.	FRAND LICENSING COMMITMENTS	6
3.	THE LIMITATIONS OF FRAND LICENSING COMMITMENTS AND THE RULES OF SSOs	7
C.	LICENSING OF SEPS IN THE MOBILE TELEPHONY MARKET: EU PROCEEDINGS	9
1.	THE SMARTPHONE WARS	9
2.	NATIONAL SUITS.....	9
3.	THE EUROPEAN COMMISSION’S INVESTIGATIONS IN SAMSUNG AND MOTOROLA	13
4.	<i>HUAWEI TECHNOLOGIES</i>	14
D.	RESOLVING THE QUESTIONS RAISED BEFORE THE ECJ IN <i>HUAWEI TECHNOLOGIES</i> : FRAND, INJUNCTIONS AND ARTICLE 102.....	16
1.	DOMINANCE.....	16
2.	CAN SEEKING AND/OR ENFORCING AN INJUNCTION CONSTITUTE AN ABUSE?.....	16
(a)	Exploitative and/or exclusionary conduct?	16
(b)	Identifying unlawful exclusionary conduct?.....	18
(c)	Objective Justification	27
(d)	Conduct authorised at the national level	27
(e)	Access to court?	28
E.	CONCLUSIONS AND DETERMINING ARTICLE 102 AND FRAND-COMPATIBLE LICENSING TERMS.....	29

* Alison Jones is a Professor of Law at King’s College, London. The author would like to thank Kirsten Edwards-Warren, Liza Lovdahl-Gormsen and Brenda Sufrin for helpful comments on an earlier draft of this paper.

A. INTRODUCTION

In 2013, in the case of *Huawei Technologies v ZTE*, the Regional Court of Düsseldorf (Landgericht Düsseldorf) referred a number of questions to the Court of Justice (ECJ).¹ In particular, it asked the ECJ whether, and if so when, it might constitute an abuse of a dominant position contrary to Article 102 TFEU for a patent holder, in this case the holder of a standard-essential patent (SEP) which had given a commitment to license that SEP to any third party on fair, reasonable and non-discriminatory (FRAND) terms, to seek an injunction against a potential licensee alleged to be infringing the patent. The case raises a number of difficult issues for resolution at the interface of antitrust and patent law and, especially the question of whether, and if so when, it is legitimate for competition law to encroach on exclusive patent rights.

Sections B and C start by examining the background to the case, which is essential to understanding the questions raised and how they might be answered. They set out the factors that triggered the dispute in *Huawei* and examine core cases in which applications for injunctions made by FRAND-encumbered SEP-holders have had to be considered in the EU. It is seen that developments in the national courts, and before the European Commission (the Commission), support a fairly broad consensus that SEP-holders which have committed to licensing their patents on FRAND terms should not ordinarily be permitted to undermine the objectives of that commitment by obtaining an injunction against potential licensees willing to take a FRAND licence. Nonetheless, SEP-holders have been able to take advantage of favourable court processes in Germany to obtain injunctions to protect their SEPs and to prevent infringements of the patents by implementers of the standard in Germany. These cases are having implications for, and an impact on, implementers beyond Germany, throughout the EU. Concern about the compatibility of the conduct of SEP-holders with Article 102 TFEU was, however, what led the Landgericht Düsseldorf to make the reference to the CJ.

Section D analyses the questions that have been put to the ECJ in *Huawei Technologies* against this background and considers how it might answer them. It suggests that even though EU precedent does not provide a clear solution to the questions posed, jurisprudence does set out some guiding principles which can be relied upon to construct an answer. Section E concludes that even if this matter is resolved, other pressing – and difficult – matters remain which require further development. As the FRAND obligation leaves vast scope for disagreement between SEP-holders and implementers over a number of fundamental issues, it is critical that mechanisms are put in place which will allow FRAND disputes to be resolved quickly and efficiently to the mutual benefit of SEP-holders and implementers.

¹ C-170/13 (judgment pending).

B. BACKGROUND

1. THE BENEFITS AND RISKS OF STANDARD SETTING

A number of industries, particularly the computing, communications and electronics industries,² are dependent for successful operation on standards relating to “technical or quality requirements”³ which have been developed, negotiated and agreed upon by industry participants within a standard setting organisation (“SSO”). SSOs thus provide the opportunity for the advancement of the consumer welfare goal “on several levels.”⁴ By ensuring compatibility and interoperability between different manufacturers’ products or components within a system they permit and encourage the development of new and improved products, contribute to the enlargement of the market and enhance the utility of all products. Further, standard setting may facilitate competition among producers by reducing wasteful spending on technology and lowering costs for consumers. Firms involved in standard setting benefit both through production of goods that implement the standard and/or from licensing patented technology which contributes, and is essential, to the standard – standard essential patents (SEPs) - to other implementers.⁵

Despite their pro-competitive potential, the practices of SSOs, and their participants, have come under the antitrust spotlight in recent years. Not only do standardisation agreements themselves require careful scrutiny to determine whether they are in fact pro-competitive or whether they may be likely to restrict competition, for example by excluding competitors of competing technology,⁶ but more recently there has been concern that the behaviour of firms participating in a legitimate standard setting

² Many manufactures (eg of mobile phones, CDs, DVDs, computer memory, computer interfaces, USB memories, audio picture and video compression, Bluetooth, semiconductors, motor industry, biomedical, aerospace, shipping) depend for their products viability on compliance with industry standards. Indeed, standards are “ubiquitous throughout markets”, Committee in Intellectual Property Management in Standard-Setting Processes, National Research Council “Patent Challenges for Standard-Setting in the Global Economy: Lessons from Information and Communication Technology” (2013), 15.

³ 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 (Horizontal Cooperation Guidelines), ¶ 257.

⁴ *Broadcom Corp v Qualcomm Inc* 501 F 3d 297 (3d Cir 2007), 308-09.

⁵ Who may or may not have participated in the standard’s development. In the Smartphone context, the “newer” players, such as Apple and Microsoft, have not the involvement in the technology involved in developing telecommunications standards as that of the longer-standing players, such as Nokia, Motorola and Ericsson, see *infra* Section B.1.

⁶ Although they provide the opportunity for efficiencies, by definition they eliminate competition from alternative technologies, restrict the competitive constraints exercised by future technologies and may also provide the opportunity for parties to such agreements to exclude or discriminate against other undertakings/ technologies, see Horizontal Cooperation Guidelines, *supra* n 3, ¶¶ 264-268 and 273-276, *COMP/35.691 Pre-Insulated Pipe Cartel* [1999] OJ L 24/1, ¶ 147 and Case 96/82 etc *IAZ v Commission* [1983] ECR 3369 and eg, *Allied Tube Conduit Corp v Indian Head, Inc* 486 US 492 (1998).

process⁷ may raise antitrust problems. In particular, a core feature of the standard setting process is that although it may achieve public benefit in enabling interoperability, it may at the same time create barriers to entry and enable one or more undertakings that hold SEPs to gain market power and control over a standard,⁸ thereby excluding competing technologies⁹ and allowing them to engage in “patent ambush” or post-standardisation practices designed to hold-up and foreclose downstream competitors. For example, there has been anxiety about:

- in the past at least, capture of the standard setting process or the conduct of a firm which has not disclosed the existence of a relevant patent, or which has engaged in some other misconduct, during a standardisation process (see for example the Commission’s and US Federal Trade Commission’s (FTC) proceedings against *Rambus*);¹⁰ and/or
- the conduct of a firm which is the holder of one or more SEPs and which is exploiting its (newly acquired or enlarged) market power as a mechanism for holding-up implementers and adversely impacting on innovation and the quality, variety and cost¹¹ of products/ services available in a downstream market by, for example: a refusal to license implementers (who are locked in to the standard¹² and may already have made specific and significant sunk investments to comply with it); or
- an agreement to license such implementers only on conditions that are unreasonable (and in “excess of the patent holder’s true contribution”¹³) or discriminatory;¹⁴ and/or

⁷ Which may not have the same interests as each other or implementers that did not participate in the standard setting process

⁸ The standard setting process may confer substantial market power on a large number of SEP-holders in related technology markets as once a standard has been set it becomes impossible for implementers to switch from SEPs to competing technologies, see eg, *Qualcomm*, *supra* n 4, 314. In contrast, prior to setting of the standard, alternative competing technologies could not command more than the competitive price, P Chappatte, “Frاند Commitments – the Case for Antitrust Intervention” (2009) 5 *European Competition Journal* 319, 325.

⁹ Case COMP/38.636 *Rambus*, 9 December 2009 (Commitment’s Decision), FAQ Press Release on the *Rambus* commitments decision, MEMO IP/09/544; see also G Piesiewicz and R Schellingerhour, “Intellectual Property Rights in Standard Setting from a Competition Law Perspective” (2007) 3 *Competition Policy Newsletter* 36.

¹⁰ In the EU see IP/09/1897 and rejection of complaint by Hynix, *Rambus* 15 Jan 2010, on appeal Case T-149/10 *Hynix v. Commission* (judgment pending) and SPEECH/08/317 N. Kroes, *Being open about standards* 10 June 2008. See also *Rambus* FTC Docket No 9305 (2 August 2005), reversed *Rambus v FTC* 522 F.3d 456 (2008), cert denied 129 S Ct 1318 (2009) and *FTC v. Bosch* Consent Order of 23 April 2013, Docket No. C-4377.

¹¹ Chappatte, *supra* n 8, 334 (“Excessive royalty rates will result in increased prices for consumers”).

¹² Once technology has been incorporated into a standard, it is frequently not possible for implementers to work/ design around the patents, consequently SEPs confer enormous “hold-up” power, see *supra* n 8 and *infra* Section D.1.

¹³ M Lemley and C Shapiro, “Patent Holdup and Royalty Stacking” (2007) 85 *Texas Law Review* 1991, 1993. In November 2009 the Commission closed an investigation against Qualcomm in respect of unreasonably high pricing of royalties for technology which had become part of an industry standard, see

- royalty stacking, resulting from the fact that numerous complementary SEPs read on a product, or a component of it, and each of the SEP-holders charge a royalty which aggregated together, significantly exceeds the rate that would be charged by a single owner of all the patents (or the standard) involved and/or exceeds the level which would make it economically feasible to operate in the downstream market.

These problems have been particularly rife in the mobile telecoms sector where vast numbers of patents (at least 250,000 SEPs and non-SEPS are estimated to read on the average smartphone¹⁵), patent holders and communications standards are involved,¹⁶ the standards have a global scope and last for a significant period of time and the costs associated with switching to another standard are generally prohibitive.¹⁷ “Telecoms operators are therefore locked into a standard once they have invested in the relevant infrastructure.”¹⁸ The result is that patent enforcement by owners of standard essential technology, even that which plays a very minor part within a standard or which is weak (i.e. which may be likely to be found invalid if challenged), can threaten the successful operation of implementers in the downstream market – so affecting price, innovation and choice in that market. As one author has pointed out:¹⁹

“This ‘Cournot Complement’ problem is aggravated by the ability of an owner of an insignificant patent that reads on one component of a complex multi-component product to seek an injunction against the manufacture and sale of the entire product. As a result, even a very weak patent could command a high royalty in settlement from defendants afraid of gambling their entire product on a jury’s decision. This can be seen in reported demands by some SEP-holders for royalties exceeding 2 percent of the price of a finished product based on a small fraction of the SEPs reading on just one or two components of the product.”

http://ec.europa.eu/competition/antitrust/cases/index/by_nr_78.html#i39_247, see also *Qualcomm*, *supra* n 4 and *Negotiated-Data Solution LLC* FTC No 051 0094 (2008).

¹⁴ See eg, M Mariniello, “Fair, Reasonable and Non-Discriminatory (FRAND) Terms: A Challenge for Competition Authorities” (2011) 7 *Journal of Competition Law & Economics* 523 and DW Carlton & AL Shampine “An Economic Interpretation of FRAND” (2013) 9 *Journal of Competition Law & Economics* 531.

¹⁵ See J Kattan, “FRAND Wars and Section 2” (2013) 27(3) *Antitrust* 30, 31.

¹⁶ One report suggests that over 23,500 patents have been disclosed on the GSM and UMTS standards, R Bekkers and A Martinelli, “Knowledge positions in high-tech markets: Trajectories, standards, strategies and true innovators” (2012) 79 *Technological Forecasting and Social Change* 1192, 1205.

¹⁷ Chappatte, *supra* n 8, 321 and 326.

¹⁸ *Ibid*, 333.

¹⁹ Kattan, *supra* n 15, 31 (“Indeed, in the only judicial decision to date to establish a F/RAND rate, the SEP owner sought a F/RAND rate that was 100 times the F/RAND rate that the court ultimately established for patents related to the Wi-Fi standard”; the judgment referred to is Case No C10-1823JLR *Microsoft Corp v Motorola* (WD Wash, 25 April 2013) (F/RAND Rate Decision), see also now Case No 11 C 9308 *Innovatio IP Ventures Patent Litigation* (ND Illinois, 27 September 2013), *infra* Section E and J Kattan and C Wood “Standard-Essential Patents and the Problem of Hold-Up” in N Charbit and E Ramundo (eds) *William E Kovacic – An Antitrust Tribute Liber Amicorum, Vol II* (Institute of Competition Law, 2013).

2. FRAND LICENSING COMMITMENTS

In order to minimise these risks many, or most, SSOs now require, encouraged and/or obliged by competition agencies and competition law, participating firms to disclose SEPs and to commit, as a condition of participating in a standard setting process, either to royalty-free licensing of any SEPs or, more commonly, their licensing on fair, reasonable and non-discriminatory (FRAND), or reasonable and non-discriminatory (RAND),²⁰ terms.²¹ Indeed, the Commission²² has stressed the importance of fair and open access to standards stating that “[i]n order to ensure effective access to the standard, the IPR policy would need to require participants wishing to have their IPRs included in the standard to provide an irrevocable commitment in writing to offer to license their essential IPR to all third parties on fair, reasonable and non-discriminatory terms (‘FRAND commitment’)...”.

The SSO’s members as a whole benefit from an assurance that an individual SEP-holder will not hold-up or compromise the success of the standard, and consumers’ acceptance of it, by exercising market power. The FRAND commitment thus precludes private profit-maximizing by a SEP owner which “could impede the success of the standard, reducing profits for other SEP owners and for implementers and decreasing consumer surplus through higher prices and reduced output. Because many SEP owners have this private incentive to charge royalties that in aggregate lower the welfare of SEP owners and implementers alike, these parties find themselves in a prisoners’ dilemma-like strategic situation in which they are likely to be worse off unless SEP owners can credibly commit *ex ante* to restrain their *ex post* opportunism”.²³

Individual SEP-holders also benefit as, even though they voluntarily agree to “waive some of their statutory rights they would otherwise have as patent owners”²⁴ and to licence their standardised technology at a reasonable rate of royalty, a higher volume of licences is anticipated for patents included within a standard (a royalty may be demanded from any user of the standard).

²⁰ Arguably, the word “fair” adds nothing to the requirement that the terms must be reasonable; they both simply reflect the requirement that the patent holder should receive a royalty that reflects the value of the technology provided, see eg, J Farrell, J Hayes, C Shapiro and T Sullivan, “Standard Setting, Patents, and Hold-up” (2007) 74 *Antitrust Law Journal* 603.

²¹ See discussion of the approaches of differing SSOs to IPR issues in “Patent Challenges for Standard-Setting in the Global Economy”, *supra* n 2, section 2.

²² Horizontal Cooperation Guidelines, *supra* n 3, ¶¶ 279 and 285, see also *infra* n 67 and ETSI IPR Policy, art 6 (recognising that to ensure the effectiveness of the FRAND commitment, participating IPR holders who provide such a commitment must be required to ensure that any company to which the IPR owner transfers its IPR is bound by that commitment) and speech of R Hesse, “Six ‘Small’ Proposals for SSOs before Lunch” (10 October 2012) making proposals for changes to SSO policies designed to benefit competition and reduce risk of exploitation of SEPs.

²³ J Ratliff & DL Rubinfeld, “The Use and Threat of Injunctions in the RAND Context” [2013] 9(1) *Journal of Competition Law & Economics* 1, 5.

²⁴ *Ibid.*, 4.

The Intellectual Property Right (IPR) policy of European Telecommunications Standards Institute (ETSI),²⁵ for example, which devises standards ensuring the compatibility and interoperability of products in the information and communications technology sector (including GSM, third generation (3G – or Uniform Mobile Telecommunications System (UMTS)) and fourth generation (4G- or Long Term Evolution (LTE)) standards) requires: that each member use its reasonable endeavours to inform ETSI of essential IPRs or which might be essential if its proposal for a standard is adopted and to grant irrevocable licences to such IPRs on FRAND conditions.²⁶

3. THE LIMITATIONS OF FRAND LICENSING COMMITMENTS AND THE RULES OF SSOs

Although FRAND commitments are important to ensure the success of standards and to minimise the risk of hold-up, it is well-known that they have not precluded problems from arising in practice. Many SSO rules currently leave open the answer to a number of complex questions, including:

- how valid patents can be identified and invalid assertions quickly weeded out;
- how infringement can be tested in relation to a portfolio of SEPS (how it can be determined whether over-declarations of essentiality have been made);
- whether and how FRAND commitments can be enforced, initially²⁷ or following transfer of the SEP to a third party;²⁸
- exactly how a FRAND royalty can be assessed (they are not generally defined by SSOs and patentees and implementers – particularly “pure” implementers which do not own SEPs (or a significant portfolio of SEPs) – are likely to have very different views on this matter); and
- what should happen when negotiations over these issues break down, perhaps because: the SEP-holder demands excessive or “unfair” terms;²⁹ the implementer refuses to pay a reasonable royalty; and/or the parties simply cannot agree what a FRAND royalty should be. In particular, whether, and if so when, might it be justifiable for the owner of a SEP, in spite of its

²⁵ For a discussion of other SSO’s IPR policies see eg, “Patent Challenges for Standard-Setting in the Global Economy”, *supra* n 2, and Chappatte, *supra* n 8.

²⁶ See ETSI IPR Policy, Arts 4.1 and 6.1.

²⁷ In *Microsoft v Motorola*, *supra* n 19, Judge Robart held that an implementer could rely on the contract as a beneficiary of it. In contrast, German courts have regularly held the FRAND licensing declarations do not give rise to contractual obligations, but are declaratory in nature and do not go beyond the competition law based obligation to grant licenses, see eg, *General Instrument Corp v Microsoft Deutschland GmbH* Regional Court of Mannheim, 2nd Civil Division, 2 May 2012, file no. 2 O 240/11.

²⁸ See eg, *In re N-Data* (FTC, 22 Sept 2008), and assessments of the Google/Motorola and Rockstar consortium/Nortel mergers, US DOJ “Statement on its Decision to Close its Investigations of Google Inc.’s Acquisition of Motorola Mobility Holdings Inc. and the Acquisition of Certain Patents by Apple Inc., Microsoft Corp. and Research in Motion Ltd.” (13 February 2013), <http://www.justice.gov/opa/pr/2012/February/12-at-210.html> accessed on 24 December 2013, and Case COMP/M.6381 *Google/Motorola Mobility* 13 February 2012.

²⁹ See eg, *Qualcomm Inc v Broadcom Corp* 539 F Supp 2d 1214 (SD Cal 2007).

voluntarily commitment to licence its technology on FRAND terms to all interested parties, to seek an injunction against an entity utilising the standard and so presumed to be infringing that SEP after negotiations have faltered.

These outstanding difficulties directly raise the important issue of the extent to which the FRAND commitment, alone or in combination with the application of the antitrust rules, operates as a constraint on the behaviour of an SEP-holder by affecting its general right as a patentee, to exercise its exclusive right over its new and inventive product or process, by deciding (a) whether or not to grant a licence to its invention to an implementer at all;³⁰ and (b) if so, on what terms? How should intellectual property law (which generally incentivises invention through the provision of a period of exclusivity to patent owners), contract law and antitrust laws interact together?

It is arguable that SSOs themselves should be doing more to refine and clarify their policies to prevent hold-ups.³¹ The reality is, however, that, at least in the mobile communications sector, to date relevant SSOs have not been able to achieve the necessary consensus required, have not developed robust dispute resolution mechanisms capable of dealing with the controversial issues arising between major technology companies, and have not demonstrated the will to do so. These issues are, therefore, now frequently arising both before courts, in the context of civil litigation between private parties, and before competition agencies, the recipients of complaints about the conduct of SEP-holders

In 2009, Philippe Chappatte wrote in this journal that there was an urgent need for clear precedent confirming the nature of a FRAND commitment. Otherwise “there is a real risk ... that national courts will apply Article [102] in an inconsistent manner when essential patents are enforced”.³² Since then the question of whether a SEP-holder should be entitled to an injunction to protect its exclusive right and prevent infringement of a FRAND-encumbered SEP has been litigated in several fora and considered by a number of competition agencies and commentators, including Nicolas Petit in the previous edition of this journal.³³ The questions of how to deal with validity and infringement issues and exactly what a FRAND obligation means in licensing terms (in particular, how a FRAND royalty rate is determined) are, however, still being worked through. Although there are indications that courts are prepared to intervene in FRAND disputes and to set FRAND terms,³⁴ many of the key issues in this area remain to be resolved. Consequently, as wrangles occur and FRAND negotiations break down, the importance of the question of whether an injunction is

³⁰ The European Enforcement Directive, Directive 2004/48/EC of the European Parliament and of the Council of 29 April 2004 on the enforcement of intellectual property rights [2004] OJ L157/70, Art 9(1) requires that injunctions for patent infringements are available as a matter of Member State law.

³¹ See further section E.

³² Chappatte, n 8, 335.

³³ See N Petit, “Injunctions for FRAND-Pledged SEPs; The Quest for an Appropriate Test of Abuse under Article 102 TFEU” [2013] 9(3) *European Competition Journal* 677.

³⁴ See eg, *IPCom v Nokia* [2012] EWHC 1446 (Ch) and *Vringo v ZTE* [2013] EWHC 1591 (Pat) and *infra* section E.

available to prevent possible infringements by implementers, and whether competition law can play a role in these issues, has come to the forefront.

C. LICENSING OF SEPS IN THE MOBILE TELEPHONY MARKET: EU PROCEEDINGS

1. THE SMARTPHONE WARS

Initially, there was relatively little patent litigation in the mobile telephony markets; most of the core players, for example, Samsung, Nokia, Ericsson, Motorola, Alcatel-Lucent and Qualcomm, were both SEP-holders and implementers in the market and cross-licensed each other licences to a portfolio of their patents.

The position changed, however, following: (1) the entry into the market of implementers, for example, Apple (with iPhone), Google (with its open source Android operating system³⁵) and Microsoft (with Windows Mobile) which did not have the networks of patents essential to ETSI standards³⁶ as their competitors (although Apple and Microsoft, for example, hold a significant portfolio of design and software patents which are not standard-essential (non-SEPs)); and (2) when some of the original players' either sold off their patent portfolios to patent assertion entities (PAEs)³⁷ and/or their position in the final product market changed or began to decline. These developments, and the change in incentives and the shift in bargaining position between SEP-holders and implementers they created, have led to an explosion of disputes and litigation worldwide raising a plethora of contract, patent and antitrust issues both in relation to the infringement of non-SEPs and SEPs, which have included the question of whether a SEP-holder should be able to enforce its exclusive rights through the bringing of an injunction claim in court.

2. NATIONAL SUITS

A number of EU national courts, in line with the approach taken by some US courts,³⁸ have declined to grant injunctions automatically to FRAND-encumbered SEP-holders.

³⁵ The Android operating system (developed by Android Inc which was subsequently purchased by Google) is designed primarily for touchscreen mobile devices and forms part of a broader project devoted to advance open standards for mobile devices.

³⁶ Although Google has subsequently acquired Motorola and its patent portfolio and Apple, Microsoft, RIM and Oracle acquired, through their Rockstar consortium, Nortel, see *supra* n 28.

³⁷ Firms whose business is primarily to purchase and assert patents, typically against operating companies with products on the market. Given the high prices that many PAEs have paid for portfolios of patents, they are likely to expect to extract high licensing fees.

³⁸ See *eBay v MercExchange* 547 US 388 (2006) (injunctions for patent infringements are not automatic but based on specified criteria) and *Apple v Motorola* (ND of Illinois, 22 June 2012) (Judge Posner) (“by committing to license its patents on FRAND terms, Motorola committed to license the ‘898 to anyone willing to pay a FRAND royalty and thus implicitly acknowledged that a royalty is adequate compensation for a license to use that patent. How could it be permitted to enjoin Apple from using an invention that it contends Apple *must* use if it wants to make a cell phone with UMTS telecommunications capability—without which it would not be a cell *phone*... A FRAND royalty would provide all the relief to which Motorola would be entitled if it proved

Rather they have been cautious about granting permanent injunctions in circumstances where the implementer against whom the injunction is sought has not refused to pay a royalty that meets the FRAND requirement. In the Netherlands, for example, the District Court of the Hague rejected an application by Samsung for an injunction to prevent Apple's sales of iPhones and iPads in the Netherlands and damages.³⁹ Although Samsung alleged that Apple was infringing a number of its (FRAND encumbered) patents,⁴⁰ relating to technology essential to the 3G standard developed in Europe by ETSI, the court denied the claim on the basis that (i) Samsung had only made one offer – a royalty of 2.4 per cent on the entire price of the final Apple products – and had not responded to Apple's counter-offers or otherwise declared FRAND terms for its portfolio of UMTS SEPs; and (ii) Apple had not acted as an unwilling licensee. The court did accept that a patentee that had agreed to grant FRAND licences might be able to enforce its patent rights in certain circumstances, but held that it would not be permitted to do so in so far as seeking the injunction would breach the FRAND obligation (for example, during negotiations on a FRAND licence) and so constitute an abuse of power or breach of pre-contractual good faith. Rather, the court took the view that the threat of an injunction in this situation would put Apple under improper pressure to agree, during licence negotiations, to non-FRAND conditions.

An Italian and a French court⁴¹ have similarly rejected injunction applications by Samsung, and in *IPCom v Nokia*⁴² Roth J, in the High Court of England & Wales, declined to grant an injunction sought by IPCom (a PAE or non-trading entity) against Nokia in relation to a patent essential to the 3G standard and which would exclude Nokia from selling its products in the UK. Given that Nokia had declared itself willing to take, and to be entitled to, a licence in relation to valid patents on FRAND terms and IPCom acknowledged that it had made a FRAND declaration, the judge failed to see why an injunction should be granted.

A particular problem that is arising, however, is that a significant amount of the EU litigation is now occurring in Germany. Not only is Germany the biggest market in the EU for mobile telephony products, but the patent litigation environment there has made it an especially attractive forum for patent holders in general, and SEP-holders in particular. Indeed, the procedure in Germany enables patent infringement cases to be resolved quickly, cheaply and in a relatively patent-holder friendly way.

infringement of the '898 patent, and thus it is not entitled to an injunction"18-19). This judgment is on appeal. See also Judge Robart's ruling in *Motorola v Microsoft*, *supra* n 19, and *infra* n 134.

³⁹ DC Hague, Mar 14 2012. See also the approach of the US courts, *supra* n 38 and *infra* n 43.

⁴⁰ Apple also challenged the validity of a number of the patents asserted by Samsung.

⁴¹ See <http://www.fosspatents.com/2012/01/italian-court-denies-samsung-motion-for.html>, and <http://www.fosspatents.com/2011/12/french-court-denies-samsung-request-for.html>, accessed 1 November 2013 and eg BB Greenfield, H Scheider and JJ Mueller, "Beyond the Water's Edge: A Survey of Recent Non-U.S. Decisions" (2013) 27(3) *Antitrust* 50, 52

⁴² *Supra* n 34 (under English law the grant of an injunction is a discretionary remedy. Although an injunction will generally be granted where the invasion of a property right is demonstrated, damages may be given in substitution in certain circumstances, see *Shelfer v City of London Electric Lighting Co* [1895] 1 Ch 287).

For example, the bifurcated court process that operates in Germany means that patent infringement cases are heard by specialist patent chambers of the Higher District Courts separately from, and regularly in advance of, issues relating to the validity of the patent (heard by the Federal Patent Court). Further, there is a strong legal tradition of providing security to IPR holders. Consequently, the former courts take the view that German law, rather than permitting discretion to be exercised, *requires* the grant of an injunction to a patent holder whose patent is found to have been infringed⁴³ unless:

(a) an extremely high degree of likelihood of invalidity before the Federal Patent Court can be established. This fact arguably encourages filing of marginal patents and the over-declaration of SEPs whilst at the same time encouraging the settlement of patent disputes relating to them, even in cases of weak patents which might, if litigated, end up being revoked by the German Federal Patent Court;⁴⁴ or

(b) a defendant can establish that by refusing to conclude a licence the claimant has abused its dominant position (since conduct prohibited by antitrust law must not be ordered by state courts). In the *Orange-Book-Standard*⁴⁵ case the German Supreme Court (Bundesgerichtshof) accepted that such an abuse would occur only in very limited circumstances, where the party seeking a licence makes, and remains bound by, an unconditional offer to conclude a licence contract with the patent-holder on terms which, if rejected by the patent-holder, would amount to a violation of antitrust law (the implementer has to be willing to pay (into court deposit) as if it were a licensee and to render accounts). The background to this case was that the validity of the patent (which was not a FRAND-encumbered SEP⁴⁶) had already been established, infringement was not contested and many licences had been granted at a published FRAND rate. This judgment has, however, subsequently been used as precedent by lower courts hearing disputes involving FRAND encumbered SEPs in circumstances where the validity of the patent(s) in dispute has not been fully reviewed and where there is a wide divergence of views on what the FRAND rate should be. Further, the *Orange-Book-Standard* has been interpreted inconsistently by

⁴³ See PatG, s 139(1) (German Patent Law) and T Körber, *Standard Essential Patents, FRAND Commitments and Competition Law* (Baden-Baden, Nomos, 2013), 186. This is in stark contrast to the position eg, in the US (see *eBay Inc v MercExchange, LLC* 547 US 388 (2006)) and in some other Member States where the courts exercise more nuanced approaches and are more cautious about granting final injunctions, see further especially *supra* n 38 and text.

⁴⁴ According to statistics published by the German Patent Court in its annual reports (2006-2011), more than 75% of patents considered by the German Federal Patent Court are found to be wholly or partially invalid.

⁴⁵ BGH, 6 May 2009, KZR 39/06, GRUR 2009 694. See J Straus, "Patent Application: Obstacle for Innovation and Abuse of Dominant Position under Article 102 TFEU?" (2010) 1(3) *Journal of European Competition Law & Practice* 189.

⁴⁶ See view of German Supreme Court Judge, Prof Dr Bornkamm (that *Orange-Book* did not have to be the final word on the case and that a readjustment might be required) reported in Mlex, "EU court review of tech-patent injunctions shouldn't delay antitrust cases, top German judge says", 13 May 2013. See also Commission Memo 13/403 ("The Supreme Court's [*OrangeBook*] ruling did not specifically relate to SEPs. The Commission's preliminary view is that an interpretation of that ruling whereby a willing licensee is essentially not entitled to challenge the validity and essentiality of the SEPs in question is potentially anti-competitive.")

those courts, but generally in a way which makes it exceedingly difficult to raise a FRAND defence to a patent infringement suit. To avoid an injunction, an implementer will ordinarily have to: renounce any defences in respect of the patents, for example, in relation to the validity of the SEP⁴⁷ and agree to a termination clause in the case of a validity challenge; unconditionally offer terms to the SEP-holder, the refusal or which would constitute a clear violation of Article 102 (ie which is a clearly excessive royalty rate);⁴⁸ render “super-FRAND” payments in respect of his past use of the patent⁴⁹ (the amount of which is to be determined by the SEP-holder at his fair discretion); and pay a sufficient deposit for damages “in escrow”. In contrast, there is no duty on the SEP-holder to engage with offers made by the party seeking a licence or to make counter-offers or to disclose terms of licences with others.⁵⁰

The net result is that, in practice, lower German courts have rarely been willing to deny injunctions sought by SEP-holders against implementers, even where the latter have made offers to make FRAND payments and declared themselves willing to accept a licence on independently arbitrated FRAND terms. In *Motorola v Microsoft*,⁵¹ for example, the District Court of Mannheim (Landgericht Mannheim) granted Motorola an injunction against Microsoft based on an SEP and in *Motorola Mobility v Apple*,⁵² it also ordered Apple to cease and desist offering and/or delivering mobile devices using the General Packet Radio Service (GPRS) standard, which incorporated the claimant’s SEPs, even though Apple had made numerous licence offers to the claimant to pay a royalty on FRAND terms. The cases do not ordinarily get appealed to higher courts, as in the end implementers agree licences in order to avoid the potentially devastating impact of the injunction on their business.

These decisions of the lower German courts are, to a considerable extent, emasculating the more nuanced approach of the EU national courts outside of Germany. First, SEP-holders have sometimes sought to trump the application of legal principles in other national courts by relying on the outcome of German litigation to argue that defendants are estopped from raising defences to patent enforcement proceedings in that jurisdiction.⁵³ Secondly, the willingness demonstrated by the

⁴⁷ *Motorola Mobility Inc v Apple Sales International* Regional Court of Mannheim, 7th Civil Division, 9 December 2011, file no 7 O 122/11 and Karlsruhe Court of Appeal, 30 January 2013, file no 6 U 136/11. In contrast, the Commission takes the view that the fact that a potential licensee challenges validity, essentiality or infringement of the SEP does not make it an unwilling licensee if it otherwise agrees to be bound by FRAND licence terms (determined by a third party), MEMO/13/403, see further *infra* Section C.

⁴⁸ *General Instrument Corp v Microsoft Deutschland GmbH*, *supra* n 27.

⁴⁹ *Motorola v Apple*, *supra* n 47.

⁵⁰ See eg, “Mannheim court continues to weaken the FRAND defense -- bad news for Apple, Nokia, HTC, others”, <http://www.fosspatents.com/2012/02/mannheim-court-continues-to-weaken.html> accessed on 24 December 2013.

⁵¹ *General Instrument Corp v Microsoft*, *supra* n 48. A US District Court, however, barred Motorola from enforcing this injunction pending its determination of an appropriate royalty rate, see *Microsoft Corp v Motorola, Inc* (2012), *aff’d* 696 F.3d 872 (9th Cir 2012), see also *infra* n 145.

⁵² *Motorola v Apple*, *supra* n 47.

⁵³ National judges may give some deference to orders made in other jurisdictions. The question of whether principles of *res judicata* should be applied in relation to German judgments was raised in

German courts to grant injunctions to SEP-holders, combined with the fact that Germany is a major commercial market, has conferred significant leverage on SEP-holders which some have been successfully utilising to secure EU-wide licences to their SEP-portfolios on advantageous terms. Faced with the prospect of having products unavoidably and permanently barred from a major market such as Germany, many smartphone manufactures have agreed to pay significant royalties demanded by SEP-holders on a broader territorial basis. For example, Motorola has been able to demand a 2.25 per cent royalty, and Samsung a 2.4 per cent royalty, of final products implementing the standard, despite the fact that there are vast numbers of other patents which read on 3G/UMTS and related standards.⁵⁴

German patent courts are, consequently, coming to be seen the venue of choice for resolving global patent disputes, (see in particular discussion of *Huawei Technologies*⁵⁵ below, involving a patent dispute arising between two Chinese electronics companies).

3. THE EUROPEAN COMMISSION'S INVESTIGATIONS IN SAMSUNG AND MOTOROLA

The Commission is currently in the process of investigating Samsung and Motorola Mobility for possibly breaching Article 102 - in particular through their use of the court processes in Germany.⁵⁶ These investigations indicate that the Commission is concerned to ensure that SEP-holders honour their FRAND obligations and that it believes that Samsung's:

“seeking and enforcing of an injunction against Apple in Germany on the basis of its mobile phone standard-essential patents (‘SEPs’) amounts to an abuse of a dominant position prohibited by EU antitrust rules. While recourse to injunctions is a possible remedy for patent infringements, such conduct may be abusive where SEPs are concerned and the potential licensee is willing to enter into a licence on Fair, Reasonable and Non-Discriminatory (so-called ‘FRAND’) terms. In such a situation, the Commission considers at this stage that dominant SEP-holders should not have recourse to injunctions, which generally involve a prohibition to sell the product infringing the patent,

IPCom v Nokia, see *supra* n 34. The US District Court, in *Microsoft Corp v Motorola, Inc* (2012), *aff'd* 696 F 3d 872 (9th Cir 2012) barred Motorola from enforcing the German court's injunction (*supra* n 47), pending its determination of an appropriate royalty rate.

⁵⁴ Kattan and Wood, *supra* n 19 (“In Motorola's litigation against Microsoft, the court found that the reasonable royalty for the company's Wi-Fi SEPs was \$0.03471 per unit and \$0.0555 per unit for its H.264 SEPs,33 a tiny fraction of the \$6 to \$8 per unit that a 2.25% royalty would have produced”, see *infra* section E).

⁵⁵ C-170/13 (judgment pending).

⁵⁶ Article 102 prohibits any abuse by one of more dominant undertakings of a dominant position held in the EU, or a substantial part of it which affects trade between Member States. See Case COMP/39939 *Samsung – Enforcement of UMTS standards essential patents* (IP/12/89) and Case COMP/ 39985 *Motorola* (IP/12/345). A Statement of Objections was sent to Motorola on 6 May 2013, IP/13/406. See also eg, speech of J Almunia, “Abuse of dominance – a view from the EU”, SPEECH/13/758, Fordham's Competition Law Institute Annual Conference, New York, 27 September 2013.

in order to distort licensing negotiations and impose unjustified licensing terms on patent licensees. Such misuse of SEPs could ultimately harm consumers. ...The preliminary view ... does not question the availability of injunctive relief for SEP-holders outside the specific circumstances present in this case, for example in the case of unwilling licensees.”⁵⁷

In *Motorola*, the Commission also set out its preliminary view that an interpretation of the Orange-Book-Standard “whereby a willing licensee is essentially not entitled to challenge the validity and essentiality of the SEPs in question is potentially anti-competitive.”⁵⁸ Although the Commission is yet either to clarify its thinking as to the “nature” of the abuse or to adopt a final decision in either of these cases – indeed, it is in the process of market testing commitments in *Samsung*⁵⁹ - the preliminary views set out seem to reflect an emerging “consensus among competition authorities that injunctive relief in connection with a [F]RAND-encumbered SEP should be a remedy of last resort”.⁶⁰

4. HUAWEI TECHNOLOGIES⁶¹

The approach adopted by the lower German courts now seems to be sufficiently out of kilter with that adopted by courts in other EU jurisdictions and the views currently being expressed by the Commission,⁶² that concern is growing that German law may be making injunctions available in circumstances in which the seeking, and subsequent enforcing, of the injunction violates Article 102. If this is correct, then

⁵⁷ IP/13/406 and see eg, speech of J Almunia, “Competition Policy in times of restructuring”, SPEECH/12/487, Chatham House Conference - Competition policy in global markets: Efficiencies and remedies in lean times, London, 22 June 2012 (“use of injunctions against willing licensees to extract better terms in the case of standard-related IPRs is potentially abusive and can cause disproportionate damage”).

⁵⁸ Commission sends Statement of Objections to Motorola Mobility on potential misuse of mobile phone standard-essential patents - Questions and Answers 6 May 2013 and see *supra* n 46.

⁵⁹ Although there is now considerable concern that the Commission is too frequently using the commitments procedure to close novel antitrust cases, meaning it does not have to develop legal analysis in a way which will prove its case or help to clarify the law (see eg, P Marsden, “The Emperor’s Clothes Laid Bare: Commitments Creating the Appearance of Law, While Denying Access to Law” *CPI Antitrust Chronicle* October 2013 (1)), the reference to the ECJ in *Huawei* should mean that legal principle is developed in these circumstances. Further, an oral hearing has been held in relation to the Motorola proceedings, see reports on MLex, “Motorola, Apple spar over ‘willingness’ in patent negotiations at EU hearing”, available at <http://www.mlex.com/EU/Content.aspx?ID=2158673>.

⁶⁰ “Patent Challenges for Standard-Setting in the Global Economy”, *supra* n 2, 96, see J Kanter, “What Difference a Year Makes: An Emerging Consensus on the Treatment of Standard-Essential Patents” (2013)(1) *CPI Antitrust Chronicle* 1, 3, see also eg, commitments agreed with FTC in Decision and Order *Motorola Mobility & Google Inc* (3 July 2013), Decision and Order, *Robert Bosch GmbH* (26 November 2012 24 April 2013) and R Knox, “Hesse Suggests Antitrust Could be Useful in Addressing Patent Abuses”, (2013) *Global Competition Rev.*, available at <http://globalcompetitionreview.com/news/article/34237/hesse-suggests-antitrust-useful-addressing-patent-abuses/> accessed on 24 December 2013.

⁶¹ C-170/13 (judgment pending).

⁶² And the views of the US courts and antitrust agencies, see *supra* nn 38 and 60.

German courts may be in breach of their duty of sincere cooperation to the EU;⁶³ they have a duty to guarantee real and effective judicial protection for EU rights⁶⁴ and an obligation *not* to apply provisions of national law which contravene EU law.⁶⁵

This type of uncertainty has led the Landgericht Düsseldorf to stay patent litigation between Huawei and ZTE⁶⁶ and to refer a number of questions to the ECJ relating to the application of Article 102 to the conduct of SEP-holders. Essentially, the questions referred ask whether:

- a SEP-holder who has made a FRAND commitment to an SSO commits an abuse of a dominant position if it brings an injunction claim in court: (a) where the proceedings are against patent infringer which has declared a willingness to negotiate such a licence (and if so how can a willingness to negotiate be established and must particular qualitative or time requirements be established)?; or (b) only where the proceedings are against an implementer who has presented an acceptable, unconditional offer to the SEP-holder to enter into a licensing agreement which the patentee cannot refuse without unfairly impeding the patent infringer or discriminating against it, and the patent infringer takes steps to act in accordance with such an offer with respect to past infringements in anticipation of any licence to be granted prior to use?;
- if the fulfilment of the infringer's obligations arising from the prospective licence that is to be granted is a prerequisite for the abuse of a dominant position, do particular acts have to be fulfilled, for example, do past infringements have to be disclosed and account made for past acts of use?

In short, therefore, the ECJ is being asked whether the *Orange-Book-Standard* "framework" (as it has later been interpreted by the lower courts in Germany) is sufficient to prevent abusive conduct by SEP-holders or whether Article 102 applies more stringently to constrain the ordinary rights of IPR owners, where the IP at issue is a FRAND encumbered SEP. Because of the size and importance of the German economy, the way in which this question is answered is critical.

⁶³ See Treaty of European Union, Art 4(3) which provides that the Union and Member States are to assist each other in carrying out tasks flowing from the Treaties and that Member States "shall take any appropriate measure . . . to ensure fulfilment of the obligations . . ." and "shall facilitate the achievement of the Union's tasks and refrain from any measure which could jeopardise the attainment of the Union's objectives".

⁶⁴ See eg, Case 14/83 *Von Colson and Kamann v Land Nordrhein-Westfalen* [1984] ECR 1891, especially para. 23 and Case 33/76 *Rewe-Zentralfinanz eG and Rewe-Zentral AG v Landwirtschaftskammer für das Saarland* [1976] ECR 1989, ¶5

⁶⁵ See also Case C-453/99 *Courage Ltd v Crehan* [2001] ECR I-6297 and Case C-198/01 *Consortio Industrie Fiammiferi (CIF) v Autorità Garante della Concorrenza e del Mercato* [2003] ECR I-8055 (the ECJ stressed that the primacy of EU law required any provision of national law which contravenes an EU rule to be disapplied and that the duty applied to all organs of the State, including administrative authorities).

⁶⁶ Düsseldorf Higher Regional Court, Order of 21 March 2013, file no 4b O 104/12, GRUR Int. 2013, 547. (Founded on an allegation of infringement by ZTE of SEPs declared to ETSI (and subject to a FRAND obligation) for 4G/LTE cellular telecoms standard).

D. RESOLVING THE QUESTIONS RAISED BEFORE THE ECJ IN HUAWEI TECHNOLOGIES: FRAND, INJUNCTIONS AND ARTICLE 102

1. DOMINANCE

This paper concentrates on the question of abuse – the focus of the *Huawei* reference – but notes that Article 102 applies, of course, only if it is established that the undertaking alleged to have engaged in abusive conduct holds a dominant position. There seems little doubt, however, that standard setting process *can* confer market power and a dominant position on SEP-holders and, indeed, a large group of them. It has already been seen that numerous patented technologies may be “essential” to a standard. Owners of such patents are likely to acquire market power after the standard is adopted if it subsequently becomes impossible for implementers to invent or design around the patent (the standard constitutes a barrier to entry to the market as it is commercially indispensable to comply with it). In the mobile telephony sector, manufacturers of 3G or 4G mobile devices are generally locked-in and unable to design around standards as they must be able to certify that their product is standard compliant in order to operate on UMTS and LTE networks. In these markets therefore SEP-holders may frequently be found to be dominant.⁶⁷

2. CAN SEEKING AND/OR ENFORCING AN INJUNCTION CONSTITUTE AN ABUSE?

(a) Exploitative and/or exclusionary conduct?

The right to exclude and to seek and obtain an injunction against an infringer are generally integral aspects of IP and essential rights of an IPR-holder designed to protect its incentive to innovate and to deter infringements of its exclusive rights. The antitrust concern in the *Huawei* context is, however, that if, post-standardisation, a SEP-holder is allowed to rely on its IPR to seek and obtain an injunction, it may be permitted to use its market power, acquired from, or enhanced by, the standardisation process, to hold-up locked-in implementers by refusing a licence or licensing only on unfair or discriminatory terms, the exact mischief the FRAND commitment was designed to prevent. There is no previous jurisprudence of the EU courts which specifically considers whether such conduct may constitute an abuse of a dominant position. Nonetheless, the issues raised by this case do have similarities to those raised in a number of established categories of abuse. Indeed, the ECJ has previously had to consider other circumstances in which the exercise of essential rights by IPR-owners might infringe Article 102 and the Commission, in its statements in relation to *Samsung* and *Motorola*, has drawn attention both to the exploitative and exclusionary nature of such conduct.

⁶⁷ See eg. Chappatte, *supra* n 8, 333, *supra* nn 8-18 and accompanying text and *Google/Motorola*, *supra* n 28, ¶ 54. Indeed, it is because of the recognition that market power may be obtained by participations to the creation of a standard that the Horizontal Cooperation Guidelines, *supra* n 3, provide that for standard setting agreement to fall outside Article 101(1), the SSOs IPR policy should ensure SEP holders make FRAND commitments (see especially ¶¶ 269 and 285 and *supra* n 22). It is also important to consider whether the exercise of market power is constrained by buyer power, for example where the implementer owns blocking patents, see R O'Donoghue and J Padilla, *The Law and Economics of Article 102 TFEU* (Hart Publishing, 2nd edn, 2013), 703.

Although it is true that: (i) an important concern is that the SEP-holder might seek an injunction as a mechanism for holding-up implementers through extracting “unfair”, and/or “discriminatory”, licensing terms which the implementer would not accept in ordinary circumstances;⁶⁸ and (ii) that Article 102 itself specifically prohibits a dominant firm from engaging in exploitative conduct, in particular through “imposing unfair purchase or selling prices or other unfair trading conditions” (Article 102(a)) or engaging in discriminatory behaviour (“applying dissimilar conditions to equivalent transactions with other trading parties, thereby placing them at a competitive disadvantage” (Article 102(c)); the Commission, like many other competition agencies, rarely intervenes in cases which purely involve unfair pricing⁶⁹ or secondary-line price discrimination.⁷⁰ Apart from the regulatory nature of any such intervention and, for example, broader concerns as to when intervention of this type is desirable,⁷¹ the difficulties involved in determining whether selling prices imposed are unfair (or excessive) are acute (see further section E below). Rather, the Commission has generally preferred to focus its resources on exclusionary conduct – that is

⁶⁸ “[T]he threat of an injunction can enable a patent holder to negotiate royalties far in excess of the patent holder’s true economic contribution. Such royalty over-charges act as a tax on the products incorporating the patent technology thereby impeding rather than promoting innovation.” Lemley and Shapiro, *supra* n 12, 1993. See also MA Lemley and C Shapiro, “A Simple Approach to Setting Reasonably Royalties for Standard-Essential Patents” (March 2013) *Stanford Public Law Working Paper No 2243026*, FTC Commissioner Ramirez’s prepared statement of the FTC to the Committee on the Judiciary, United States Senate, concerning, “Oversight of the Impact on Competition of Exclusion Orders to Enforce Standard-Essential Patents” 11 July 2012, (“A royalty negotiation that occurs under the threat of an injunction ... may be weighted heavily in favor of the patent-holder in a way that is in tension with the RAND commitment”), Kattan and Wood, *supra* n 19 and the discussion, *infra* section E, of the US cases, *Microsoft v Motorola* and *Innovatio*, *supra* n 19, where the courts awarded dramatically lower royalty levels than those demanded by the SEP-holders.

⁶⁹ For the view that the seeking of an injunction should be analysed as an exploitative abuse, see U Petrovčič, “Patent hold-up and the limits of competition law: A Trans-Atlantic perspective”, (2013) 5 *CMLR* 1363. In Cases C-403 and 429/08 *Premier League Ltd v. QC Leisure and Murphy v. Media Protection Services Ltd* 4 October 2011, ¶¶ 108-109, the ECJ made clear that the ownership of an IPR does not necessarily guarantee the right for the owner to demand the highest possible remuneration - only appropriate remuneration which must be reasonable in relation to the economic value of the service provided. Further, in *Rambus* the Commission objected to excessive royalties levied by Rambus subsequent to a patent ambush. The case was settled, however, after Rambus committed to reduce its royalties, see *supra* n 9, see also Case 238/87 *AB Volvo v Erik Veng* [1988] ECR 6211 and *infra* n 77.

⁷⁰ Indeed, in this context the Commission’s view is that the national courts or arbitrators are better equipped to deal with the question of what constitutes a reasonable royalty and it has focussed its attention on the question of whether the seeking of an injunction constitutes an abuse. But see the preliminary order of the Competition Commission of India, which is investigating whether Ericsson’s royalty rates are excessive, discriminatory and in breach of FRAND terms, *infra* section E, especially n 144 and text. See also the judgment of the English Court of Appeal in *Attheraces Ltd v British Horseracing Board* [2007] EWCA Civ 38.

⁷¹ For example, three main conceptual challenges suggesting a cautionary approach to excessive pricing cases arguably are that the markets are self-correcting, the prohibition is tantamount to prohibiting the dominant position and that exploitative practices serve an important dynamic role, thereby increasing welfare, see M Gal, “Abuse of Dominance-exploitative abuses” in I Lioanos and D Geradin (eds) *Handbook on European Competition Law: Substantive Aspects* (Edward Elgar, 2013).

“practices that cause consumers harm through their impact on competition”.⁷² Indeed, arguably the concern about the conduct at issue in *Huawei* is not only that hold-up may allow SEP holders to secure rewards for innovation beyond their true value to consumers, but also that if the SEP holder is able to hold-up implementers post-standardisation, confidence in, and the working of, the standard-setting will be undermined, open and effective access to the standard will be precluded and competition may be distorted through the exclusion, elimination or hampering of competition, new entry and innovation downstream. This will create upward pricing pressure and prevent the development of the secondary market to the detriment of consumers.⁷³ As in the case of a refusal to deal or margin squeeze, therefore, a core antitrust concern is that the seeking of an injunction may distort competition in downstream markets.

(b) *Identifying unlawful exclusionary conduct?*

i. *Distinguishing competition on the basis of performance from unlawful exclusionary conduct*

A majority of EU jurisprudence focuses on exclusionary conduct which “through recourse to methods different from that 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”.⁷⁴ The case-law thus draws a vital distinction between competition on the basis of performance, or competition on the merits, and abusive exclusionary conduct. As the line between such conduct is notoriously difficult to draw, especially as it frequently looks alike, the challenge for any competition law system is to construct legal rules or standards to identify exclusionary abusive behaviour and to distinguish it from competition in a way which provides sufficient (i) clarity and (ii) accuracy – so avoiding both Type 1 (condemning legitimate aggressive competition and so potentially chilling pro-competitive conduct) and/or Type 2 errors (allowing anti-competitive practices to escape antitrust prohibitions). The tendency in the EU has been for the distinction to be drawn through the use of conduct-specific tests. Nonetheless, principles are emerging from the cases which are helpful to understand the concept of an abuse, how it might apply in cases where novel allegations of abuse are raised, and in seeking to

⁷² Case C-209/10 *Post Danmark A/S v Konkurrencerådet* 27 March 2012, ¶ 20.

⁷³ See *supra* nn 22-23 and text. The purpose of the FRAND obligation was also to preclude the SEP-holder from engaging in exclusionary behaviour at the standard-setting stage, by taking away incentives to exclude competing technology from the standard. In the absence of the FRAND obligation, a competing technology may have been chosen. If it can be demonstrated that the practice has an exclusionary effect, it is not necessary to demonstrate that the licensing demand would constitute “excessive” pricing for the purposes of Article 102(a). In margin squeeze cases for example, it is not necessary to establish that the price upstream constitutes excessive, exploitative conduct: the question is whether the pricing as a whole will result in anti-competitive effects downstream, see eg, Körber, *supra* n 43, 229-230. See also Case T-201/04 *Microsoft*, *supra* n 78, ¶¶643-653.

⁷⁴ Case 85/76 *Hoffmann-La Roche & Co AG v Commission* [1979] ECR 461, ¶ 91.

ensure that Article 102 is not applied formalistically, but in a coherent and consistent manner which treats economically-equivalent actions in an identical manner.

In the context of pricing abuses, for example, the concept of the “equally efficient competitor”⁷⁵ is developing as an important mechanism for distinguishing unlawful pricing practices from hard-nosed price competition. Pricing practices which have an exclusionary effect on equally efficient competitors of a dominant firm will generally be condemned as abusive where anti-competitive effects,⁷⁶ actual, potential or likely, can be demonstrated.

Further, and of particular relevance to the questions raised in *Huawei*, are the principles established in cases which have considered whether, and if so when, Article 102 may operate to constrain the exercise of an IPR-holders exclusive rights. These cases establish that, although Article 102 generally does not preclude an IPR holder from relying on the substance of its right, so that reliance on such rights cannot *in itself* constitute an abuse of a dominant position,⁷⁷ it may do so *in exceptional circumstances*.⁷⁸ For example, it is established that a refusal to license (and a “constructive” refusal to license (“the imposition of unreasonable conditions in return for the supply”⁷⁹)) may constitute an abuse of a dominant position where: separate upstream and downstream markets are identified; the IPR involved is “indispensable” for the rival to compete downstream (there are no actual or potential substitutes for it); the refusal is likely to eliminate all effective competition on the secondary market (even if not imminent); the party seeking the licence wishes to offer a new product, not duplicating that offered by the dominant firm, for which there is a consumer demand or that the refusal to license will prevent the development of the secondary market to the detriment of consumers, through damaging innovation or the improvement or variety of products downstream; and there is no objective justification for the refusal.⁸⁰ Where such exceptional circumstances exist it becomes

⁷⁵ See, eg, Case C-62/86 *AKZO v Commission* [1991] ECR I-03359 and Case C-280/08P *Deutsche Telekom v Commission* [2010] ECR I-9555.

⁷⁶ See especially, Case C-209/10 *Post Danmark*, *supra* n 72, Case C-52/09 *Konkurrensverket v TeliaSonera Sverige AB* [2011] ECR-I 527 and *infra* nn 110-115 and accompany text.

⁷⁷ Cases C-241–242/91 P *RTE & ITP v Commission* [1995] ECR I-743, ¶ 49. See also Case 53/87 *CICCRA v Renault* [1988] ECR 6039 (The ECJ stressed that a refusal by a car manufacturer to license did not necessarily constitute an abuse (rather the right of the IPR holder to make exclusive use of the right is the substance of the exclusive right), but would do so if it gave rise to “certain abusive conduct . . . such as the arbitrary refusal to deliver spare parts to independent repairers”, ¶ 16 and Case 238/87 *Volvo v Veng*, *supra* n 69.

⁷⁸ See especially Cases C-241-242/91P *RTE & ITP* *ibid*, Case 7/97 *Oscar Bronner v Mediaprint Zeitungs- und Zeitschriftenverlag GmbH & Co. KG* [1998] ECR I-7791, Case T-201/04 *Microsoft v Commission* [2007] ECR II-3601.

⁷⁹ Guidance on the Commission’s Enforcement Priorities in Applying Article 82 of the EC Treaty [now Article 102 TFEU] to Abusive Exclusionary Conduct by Dominant Undertakings (Guidance Paper) [2009] OJ C45/2, ¶ 79, see also eg, Case 34174 *Sealink/B&I – Holyhead (Interim Measures)* 11 June 1992. The Commission also treats margin squeeze analogously with refusal to deal in its Guidance Paper.

⁸⁰ The EU courts have been willing to assume that such conduct will harm the competitive structure and, possibly, consumers through the elimination or rivals on the downstream market.

permissible “in the public interest in maintaining effective competition on the market, to encroach upon the exclusive right of the holder of the intellectual property right by requiring him to grant licences to third parties seeking to enter or remain on the market.”⁸¹

One possibility⁸² is either to treat the seeking of an injunction as a form of refusal to license⁸³ in circumstances where, if the injunction were granted, the subsequent refusal, or constructive refusal, to licence would constitute an abuse⁸⁴ or to analyse the legal treatment of the conduct as a type of pricing abuse (because it impacts on the level or royalties that are ultimately paid).⁸⁵ Alternatively, as the seeking of an injunction does not seem to fall squarely within either of these categories of abuse, it might be preferable to rely on these lines of cases more generally as indicating that when identifying an abuse the EU courts look for evidence: (i) of whether the conduct at issue falls within the scope of competition on the merits; and, where it does not; (ii) of whether anticompetitive effects, actual or potential, can be demonstrated. Indeed, this approach was adopted in *AstraZeneca (AZ)*⁸⁶ when it had to be determined whether specific conduct relating to misuse of the patent system, not previously considered in EU jurisprudence, violated Article 102. In this case the ECJ stressed that Article 102 prohibits dominant firms from eliminating competition by “utilising methods other than those which come within the scope of competition on the merits.”⁸⁷ It then went on to find that having recourse to highly misleading

⁸¹ *Microsoft*, *supra* n 78, ¶ 691.

⁸² For an analysis of some possible tests that can be used to identify an abuse under Article 102, see Petit, *supra* n 33.

⁸³ For the view that the analysis required by treating the seeking of an injunction as a refusal to license is similar to the analysis conducted by the US courts when determining whether or not it should exercise its discretion to grant an injunction to a SEP-holder, see Körber, *supra* n 43, 225

⁸⁴ In the standard-setting context, a FRAND-encumbered SEP will frequently be an essential input for implementers who need to comply with the standard to compete on the downstream market so that a refusal to licence will eliminate and prevent the development of the secondary market to the detriment of consumers. Further, an obligation to licence will not adversely impact on innovation and incentives to invest by the patent holder or implementer, as otherwise the FRAND commitment would not have been required and/or agreed to in the first place, see further *infra* n 107 and text). An important issue however is whether the seeking of an injunction can be characterised as a refusal, or a “constructive”, refusal to license. In FRAND cases there is not ordinarily an “unconditional” refusal to license designed to reserve the downstream product market to the dominant IPR-holder upstream – on the contrary, the SEP holder has committed to grant the licence and the injunction action is launched in the context of the negotiations and bargaining process between it and the infringing entity/ potential licensee as to the determination of FRAND term. If, however, the SEP-holder launches the proceedings against a willing licensee (see further *infra* n 97 and text) arguably that could be treated as tantamount to a refusal to deal.

⁸⁵ Unlike in margin squeeze cases, it is hard to demonstrate that the unreasonable royalty demand by a single SEP-holder will exclude an equally efficient competitor downstream: the harm downstream is liable to result from the cumulative effect of unreasonable demands by all SEP-holders and not from the pricing conduct of the dominant firm alone, see *supra* B.1. See also discussion of Case T-111/96, *ITT Promedia NV v Commission* [1998] ECR II-2937, *infra* section D.2.e.

⁸⁶ Case C-457/10 P *AstraZeneca v. Commission* 6 December 2012.

⁸⁷ *Ibid*, ¶ 75.

representations with the aim of leading public authorities into error (for the purposes of improperly obtaining exclusive rights) was “manifestly not consistent with competition on the merits and the specific responsibility on such an undertaking not to prejudice, by its conduct, effective and undistorted competition”.⁸⁸ Nonetheless, the ECJ accepted that this was not sufficient to constitute an abuse in itself. Rather, an anti-competitive effect on the market was required; although “such an effect does not necessarily have to be concrete, and it is sufficient to demonstrate that there is a potential anti-competitive effect (see to that effect, *TeliaSonera Sverige*, paragraph 64).”⁸⁹ The ECJ also confirmed that AZ’s act of deregistering market authorisation for Losec capsules was not, even if AZ was entitled to request its withdrawal, based on the legitimate protection of an investment which comes within the scope of competition on the merits;⁹⁰ “an undertaking which holds a dominant position has a special responsibility ... it cannot therefore use regulatory procedures in such a way as to prevent or make more difficult the entry of competitors on the market, in the absence of grounds relating to the defence of the legitimate interests of an undertaking engaged in competition on the merits or in the absence of objective justification.”⁹¹ The ECJ thus stressed that the illegality of the conduct is unrelated to its compliance or non-compliance with legal rules and that a dominant undertaking may commit an abuse even when it is exercising legal rights.

ii. *Relying on a FRAND-encumbered SEP to obtain an injunction: competition on the merits or unlawful exclusionary conduct?*

Competition on the Merits?

The question to be decided in SEP cases is whether “exceptional circumstances”, within the meaning of the case law, exist which mean that it is legitimate for competition law to encroach on the exclusive rights of the SEP-holder; or whether the seeking of an injunction against an implementer infringing the SEP (the normal prerogative of the IP owner) is based on the legitimate protection of an investment which comes within the scope of competition on the merits.

The distinctive features of these types of case are that: (i) the SEP-holder is not an ordinary patent holder but has voluntarily committed to forgo some of its patent rights – in particular, the right to decide whether or not to licence its SEPs and the unfettered right to decide on the terms of the licence – in return for having its technology incorporated in the standard;⁹² and (ii) this commitment was required to ensure that the standard setting process was compatible with the competition law rules, in particular by preventing the risk of harm to competition from hold-up. Where, therefore, an assessment is made which suggests that the SEP-holder is seeking an injunction not to protect its investment but in circumstances which are liable to result

⁸⁸ Ibid, ¶ 98

⁸⁹ Ibid, ¶ 112. See also *infra* n 110.

⁹⁰ Ibid, para 31.

⁹¹ Ibid, para 134.

⁹² See *supra* Section A.2.

in hold-up, contrary to the objective of the FRAND commitment it has voluntarily given, it would appear that “exceptional circumstances” do exist; the conduct is not consistent with competition on the merits and the specific responsibility of the dominant firm (in these circumstances pledged) not to prejudice effective and undistorted competition. The crucial question which then follows is whether the simple seeking of an injunction by a FRAND-encumbered SEP-holder can be said to create a risk of hold-up or whether something further is required.

One answer might be that nothing more is ordinarily required; it is not, save in special circumstances, legitimate for FRAND-encumbered SEP-holders to bring actions for injunctions as their general availability will tip the balance of power in negotiations towards excessive royalties and hold-up. Implementers locked-in to the standard, and facing the prospect of severe loss as a result of being excluded from the downstream market following the grant of an injunction, will be forced to agree to non-FRAND terms.⁹³ Indeed, as Motorola’s expert witness itself admitted in the course of Motorola’s litigation against Microsoft before the Mannheim court, a single patent essential to an industry standard is as valuable as a large number of patents on the same standard because, “it only takes one bullet to kill”.⁹⁴ The SEP-holder should, therefore, be treated as having irrevocably waived its general right to refuse a license to an implementer and, consequently, be barred from seeking a cease and desist order against an entity who infringes its SEP. Both the seeking and the award and enforcement of an injunction is unjustified as the non-infringement counterfactual is not (as with ordinary patents) the right to refuse a licence, but only a FRAND licence. Consequently, the SEP-holder should be treated as having committed itself to relying solely on a remedy of seeking a reasonable royalty against any infringer;⁹⁵ the FRAND commitment “implicitly acknowledges that a [FRAND] royalty is adequate compensation for a license to use that patent”.⁹⁶ Special circumstances in which an injunction might be justifiable, however, could be where an infringing implementer:

- (i) is not a “willing licensee”: an unwillingness to pay FRAND terms on the part of the implementer cannot, however, be assumed simply from the fact of

⁹³ See especially *supra* nn 68 and 69 and Kattan and Wood, *supra* n 19 (“An increasing number of reported cases indicate that these threats are real and provide empirical evidence refuting claims that hold-up is inconsequential or theoretical”).

⁹⁴ This admission expressly acknowledges that the value of the FRAND-pledged patent results from its ability to “kill” others with it – “the very opposite of what FRAND-pledged standards-essential patents should be used for”, see “Motorola likens its enforcement of FRAND patents to bank robbery: ‘it only takes one bullet to kill’” <http://www.fosspatents.com/2012/02/motorola-likens-its-enforcement-of.html> accessed on 24 December 2013.

⁹⁵ See eg, Farrell et al, *supra* n 20; M Lemley, “Intellectual Property Rights and Standard-Setting Organisations” (2002) 90 *California Law Review* 1889; J Miller, “Standard-Setting, Patents and Access Lock-in: RAND Licensing and the Theory of the Firm” (2007) 40 *Indiana Law Review* 351; Hesse, *supra* n 22; Kanter, *supra* n 60. For the view that injunctions generally undermine the FRAND regime and so should not be available save in the most exceptional circumstances, see eg the views of D Carlton and C Shapiro in “Economists’ Roundtable on Hot Patent-Related Antitrust Issues” (2013) 27(3) *Antitrust* 10, 12 and Carlton & Shampine, *supra* n 14.

⁹⁶ Judge Posner, *Apple Inc v Motorola Inc*. 869 F Supp 2d 901, 914 (N.D. Ill 2012).

- infringement in standards cases.⁹⁷ Rather, both parties should be required to negotiate in good faith and implementer should be considered to be willing unless it has refused to accept a licence on agreed, or independently determined FRAND terms (by a court or arbitral tribunal); or
- (ii) is insolvent and unable to pay the royalty.

Another answer, however, could be that such an inflexible rule is unwarranted and that something further than simply seeking an injunction is required, especially as there is little evidence that hold-up occurs or is preventing investment in, and the success of standards. Those supporting such a view might argue that even SEP-holders must be able to exercise their essential right to protect the exclusive nature of their patent through an injunction against an infringer of that right – and that this is the reason why SSO rules do not explicitly prohibit the seeking of an injunction. Otherwise SEP-holders will not be able to counteract the conduct of an implementer who operates on the market without a licence, so infringing the patent, and who holds-out by refusing to bargain in good-faith (identified by some commentators as the “reverse hold-up” problem). It has thus been argued that “[d]enying access to injunctions for SEP-holders in (effectively) all circumstances would give prospective licensees enhanced ability and incentives to free ride on SEPs”⁹⁸ and would force the patentees to enter costly litigation dealing with validity, essentiality and infringement in order to compel the implementer to take a licence to what might be a multitude of valid SEPs.⁹⁹ Seeking an injunction should thus be seen as “an option in the context of procedures that balances the incentives of both SEP-holder and prospective licensee” and an integral part of a multi-dynamic game played to achieve the balance between the negotiating parties - balancing the potential for hold-up by the SEP-holder with potentially opportunist behaviour by the prospective licensee.¹⁰⁰ This balancing can be conducted by courts on a case-by-case basis as they normally do when determining whether an injunction should be granted. A FRAND pledge should *not* therefore be taken to imply a “waiver of seeking injunctive relief”¹⁰¹ nor should a decision “to seek

⁹⁷ The reality is that FRAND licences are not generally negotiated in advance (even if they should be) and there are a number of practical reasons for this, see eg, JL Contreras, “Fixing FRAND: A Pseudo-Pool Approach to Standards-Based Patent Licensing” (2013) 79(1) *Antitrust Law Journal* 47, 59-62.

⁹⁸ Camesasca et al, *supra* n 100, 289.

⁹⁹ JD Harkrider, “Seeing the Forest Through the SEPs” (2013) 27(3) *Antitrust* 22, 26 (“If firms are free to refuse to pay for their use of SEPS without any risk of injunctions or damages that might lead to underinvestment in standards development and related innovation”). For a discussion of the marginal costs and benefits of applying US antitrust law to the “so-called patent holdup problem” see eg BH Kobayashi and JD Wright, “Federalism, Substantive Preemption, and Limits on Antitrust: An Application to Patent Holdup” (2009) 5 *Journal of Competition Law & Economics* 469, GS Cary, MW Nelson, SJ Kaiser and AR Sistla, “The Case for Antitrust Law to Policy the Patent Holdup Problem in Standard Setting” (2011) 77 *Antitrust LJ* 913 and H Kobayashi and JD Wright, “The Limits of Antitrust and Patent Holdup: A Reply to Cary et al” (2013) 78 *Antitrust LJ* 505.

¹⁰⁰ P Camesasca, G Langus, D Neven and P Treacy, “Injunctions for Standard-Essential Patents: Justice is not Blind” (2013) 9 *Journal of Competition Law & Economics* 285, 287 (hold-out (or reverse hold-up) is as valid a concern as hold-up when considering the impact of the conduct on innovation and downstream competition).

¹⁰¹ Ratliff and Rubinfeld, *supra* n 23, 9.

an injunction ... be seen mechanically as a refusal to license". Rather, it might be an "efficient and necessary tool" to compel recalcitrant implementers to engage in good-faith licensing negotiations and to ensure that innovators continue to participate in standard setting processes.¹⁰²

For the purposes of EU competition law, it is proposed that an approach closer to the first is preferable; the seeking an injunction in cases involving FRAND-encumbered patents should not be considered to constitute competition on the merits unless the patentee can demonstrate that it was acting in defence of its legitimate interests, to protect its investment, and so has a justification for the conduct, for example, that the implementer is not a "willing licensee" (as defined above)¹⁰³ or is unable to pay. Such a rule would preclude anticompetitive reliance on patent rights and avoid the risk of Type 2 errors without creating an excessive risk of Type 1 errors.

First, if SEP-holders have an unchecked right to seek (and subsequently enforce) an injunction the risk of hold-up and Type 2 errors appears severe. It has been seen in section C that the reality is that implementers faced with injunction actions in Germany have had the choice of either suffering significant harm as a result of being excluded from a major fast-moving market or paying the rate demanded by the patentee for past infringements and future licence payments (however unreasonable that may appear) and waiving all validity and essentiality claims (and even though a large number of patents turn out to be invalid when actually tested).¹⁰⁴ The judgments of the lower courts in Germany make it very difficult for potential licensees to resist an injunction in practice, even if they are willing to engage in good-faith licence negotiations. It is over-optimistic therefore to assume that national injunction procedures permit implementers to raise FRAND and other technical defences so that there is no need for an antitrust limitation on seeking injunctions.¹⁰⁵ Further, it is not correct that recognizing an injunction as an option will not "necessarily subject implementers to hold-up, since they would always retain the right to seek a FRAND licen[c]e and to seek judicial relief if they believe the licensor is breaching its

¹⁰² *Ibid*, 24.

¹⁰³ The purpose of the FRAND promise is to encourage use of the standard: the SEP-holder has promised to license to implementers who may not be able to negotiate licences in advance of implementing the standard. Implementers should therefore be a willing licensee so long as they have declared a willingness to adhere to FRAND licensing terms and to pay court or tribunal adjudicated rates if agreement cannot be reached, see *supra* n 97 and text.

¹⁰⁴ *Google/Motorola*, *supra* n 28, ¶107 ("it may be that the threat of injunction, the seeking of an injunction or indeed the actual enforcement of an injunction granted against a good faith potential licensee, may significantly impede effective competition by, for example, forcing the potential licensee into agreeing to potentially onerous licensing terms which it would otherwise not have agreed to. These onerous terms may include, for example, a higher royalty than would otherwise have been agreed. To the extent that injunctions are actually enforced, this furthermore may have a direct negative effect on consumers if products are excluded from the market. Even if exclusion of competing products from the market through injunctions were to be temporary (i.e. there would be a delay only in access to the relevant products until the counter-party of the SEP-holder agreed to the commercial terms demanded), in a fast-moving market such as the smart mobile device market, serious harm could potentially be caused by it").

¹⁰⁵ Camesasca et al, *supra* n 100, 306.

commitment”¹⁰⁶ On the contrary, EU experience is that even implementers willing to license on court-certified FRAND terms have been unable to avoid injunctions in Germany.

Secondly, it can be assumed that a denial of the right to seek an injunction against willing licensees (and an obligation to licence) will not adversely impact on freedom to contract or innovation and incentives to invest by either the patent holder or implementer (where it is locked-in to, and unable to design around, the standard); the existence of the FRAND commitment makes it clear that the SEP-holder will not be irreparably harmed since it “planned to monetize its IP through broad licensing on reasonable terms rather than through exclusive use”¹⁰⁷.

Thirdly, the removal of an unfettered right to seek an injunction does not automatically create a risk of Type 1 errors and mean that implementers are free to infringe SEPs with impunity and hold-out against patentees. If the parties cannot agree on FRAND terms, having reached an “impasse”, the patentee may request a court (or arbiter) to order the infringer to pay damages in respect of past infringement and/or to pay an ongoing royalty for future licensed use.¹⁰⁸ In section E it is recognised that much more needs to be done to ensure that disputes in relation to FRAND terms are settled more efficiently to the mutual benefit and satisfaction of both parties to the dispute. If the implementer has been behaving unreasonably by refusing to negotiate in good faith or in a timely way, the patentee will be able to recover its costs.¹⁰⁹ If a potential licensee continues to behave unreasonably and refuses to pay FRAND terms as independently determined by a tribunal or court, this could be raised by the SEP-holder as a basis for arguing that seeking an injunction against such a licensee is justifiable on the facts (see also the discussion of objective justification below).

Anti-competitive effects

It also appears arguable that where an injunction is sought in circumstances which would allow hold-up, anticompetitive effects “which may potentially exclude

¹⁰⁶ Harkrider, *supra* n 99, 24.

¹⁰⁷ FTC, opinion towards the Independent Trade Commission (2012), 6.6 and *supra* n 96. In addition, in standards cases the dominance of the patent is not necessarily achieved because of the superiority of the technology but may result from the incorporation of the technology within the standard.

¹⁰⁸ *Microsoft v Motorola* (WD Wash, 29 November 2012), footnote 9 (“The court is unconvinced by Motorola’s argument that it has or will suffer irreparable harm to its goodwill and reputation because a compulsory license agreement would encourage others to infringe Motorola’s standard essential patents. This is not the case, The court’s prior rulings have made clear that Microsoft, as an implementer [...] must accept a RAND license [...] As the court has explained in the situation where a standard essential patent holder and an implementer reach an impasse during negotiations for a RAND license, the courthouse may be the only forum to adjudicate the rights of the patentee and the third-party beneficiary of the RAND commitments. Certainly, easily measurable litigation costs to enforce one’s rights cannot constitute irreparable harm”).

¹⁰⁹ See Directive 2004/48/EC, *supra* n 30, especially Arts 9, 13 and 14 (the latter provides that the reasonable and proportionate legal costs and expenses of the successful party should generally be borne by the unsuccessful party).

competitors”¹¹⁰ and eliminate effective competition may be demonstrable;¹¹¹ if an injunction is granted open access to, and the success of, the standard will not be achieved as, if compliance with the standard is mandatory, implementers will be excluded from the downstream market. Further, even if the enforcement of the injunction is avoided through the negotiation of terms which the implementer would not otherwise have accepted,¹¹² hold-up occurs and there is a risk that confidence in the standard setting process will be undermined and the ability of the implementer to compete in the downstream market will be impeded or, in some circumstances, even eliminated.

Both the ECJ and the Commission have recognised the importance of acting rapidly under Article 102 in growing markets, before the anticompetitive effects of the strategy can be realised.¹¹³ As even temporary exclusion from fast moving technology markets can cause serious harm,¹¹⁴ the ECJ has held that Article 102 does not apply “only from the time when there is no more, or practically no more, competition on the market. If the Commission were required to wait until competitors were eliminated from the market, or until their elimination was sufficiently imminent, before being able to take action under [Article 102] that would clearly run counter to the objective of the provision, which is to maintain undistorted competition in the common market and, in particular, to safeguard the competition that still exists on the relevant market.”¹¹⁵

¹¹⁰ Case C-52/09 *TeliaSonera*, *supra* n 76, ¶ 64. EU law therefore does not require proof of actual anticompetitive effects or a high probability that such effects will arise. Rather, to ensure that the evidentiary burden on claimants is not placed too high, the test appears to require it to be demonstrated that “in a manner tailored to the specificities and facts of each case, that a particular practice ‘tends’ to restrict competition in the sense that it has the potential to hinder competition. It must thus be demonstrated that it is plausible that the practice harms or will harm competition. Abstract, purely hypothetical or remote assertions or theories of harm, which are not linked to the specificities of the case at hand, will thus not suffice,” *AstraZeneca*, *supra* n 86, Opinion of Mazák AG, paras 62-63.

¹¹¹ Cases of exclusionary abuse ordinarily involve a scenario in which a dominant firm engages in conduct designed to foreclose competition from the dominated or a neighbouring or downstream market; indeed the Commission has stated that it focuses its enforcement efforts under Article 102 on abusive conduct which is likely to lead to “anti-competitive foreclosure” of competitors to the detriment of consumers, Guidance Paper, *supra* n 79, ¶¶ 19-20. In many of the injunction cases that have arisen in the EU, the SEP-holder has operated in the downstream market as an implementer in competition with other smartphone manufacturers. This factor may facilitate a finding of anticompetitive effects as, arguably, a vertically integrated entity has an incentive to engage in conduct which creates barriers to competition in the downstream market. Where however the SEP is owned by a PAE, or another undertaking which does not operate in the downstream market, such an incentive does not exist; in these cases therefore it may be more of a challenge to demonstrate anticompetitive effects. Nonetheless, even if the SEP-holder is not vertically integrated, the ability to exploit market power post-standardisation and hold-up implementers seems also to give rise to a possibility of potential anti-competitive effects through a distortion of competition downstream.

¹¹² See *supra* n 68 and accompanying text

¹¹³ Case C-52/09 *TeliaSonera*, *supra* n 76, ¶ 108.

¹¹⁴ *Google/Motorola*, *supra* n 28, ¶107.

¹¹⁵ Case T-201/04 *Microsoft*, *supra* n 78, ¶ 561.

(c) *Objective Justification*

Although not set out in the wording of Article 102, the EU Courts have consistently held that a dominant undertaking may provide objective justification for behaviour that is otherwise liable to be caught by the prohibition under Article 102. Broadly, dominant firms may do this either by showing that their conduct is objectively necessary or that the abusive conduct is counterbalanced by objective economic justifications - advantages in terms of efficiency that also benefit consumers.¹¹⁶ A SEP-holder could therefore seek to justify the seeking of an injunction either (i) on technical or commercial grounds,¹¹⁷ for example, where the implementer has refused to comply with an independently adjudicated FRAND determination (it is not a “willing licensee”¹¹⁸) or is unable to pay, or (ii) on the basis of efficiencies, although it would not seem to be open to a SEP-holder to argue that the injunction is required to safeguard innovation and incentives to invest¹¹⁹ or to encourage implementers to accept its licensing terms.

(d) *Conduct authorised at the national level*

It would be no defence to a finding of an abuse of dominance that the conduct was permitted or authorised under national law (for example, because the national rules permitted the seeking and the award of an injunction). Article 102 applies to conduct attributable to an undertaking on its own initiative – such as the voluntary seeking of an injunction - and will only *not* apply if the anticompetitive conduct is required of the undertaking by national legislation or if national legislation creates a legal framework which eliminates any possibility of competitive activity.¹²⁰ Where national legislation leaves open the possibility for competition, a dominant firm has a special responsibility not to obstruct it and to allow its conduct to impair genuine undistorted competition.

¹¹⁶ Case C-209/10 *Post Danmark*, *supra* n 76, ¶ 41 and Case C-95/04 P *British Airways v Commission* [2007] ECR I-2331, ¶ 86.

¹¹⁷ Case 311/84 *Centre belge d'études de marché - Télémarketing v Compagnie luxembourgeoise de télédiffusion* [1985] ECR 3261, ¶¶ 26-7.

¹¹⁸ See *supra* n 97.

¹¹⁹ See *supra* n 107 and text.

¹²⁰ Case C-280/08P *Deutsche Telekom*, *supra* n 75, ¶¶ 80-85 (the fact that the national regulatory authority might have infringed EU law did not affect Deutsche Telekom's liability, ¶ 91 see also *supra* nn 64-65 and text). If national law merely encourages or makes it easier for undertakings to engage in autonomous anti-competitive conduct, those undertakings remain subject to Articles 101–02, see, eg Case C-198/01 *CIF*, *supra* n 65, ¶ 56. See also Case C-52/09, *TeliaSonera*, *supra* n 76, ¶ 52 ('where an undertaking has complete autonomy in its choice of conduct on the market, Article 102 TFEU is applicable to it') and Case C-681/11 *Bundeswettbewerbsbehörde and Bundeskartellanwalt v Schenker & Co AG* 18 June 2013. Where the restriction of competition originates solely in the national law, the restriction of competition is not attributable to the autonomous conduct of the firms, see Cases T-191, 212–214/98 *Atlantic Container Line v Commission* [2003] ECR II-3275, ¶ 1130. See also Cases C-94 and 202/04 *Cipolla v Fazari* [2006] ECR I-11421.

(e) Access to court?

In *ITT Promedia NV v Commission*¹²¹ the General Court stressed the importance of the principle of access to Court both as a fundamental right and a general principle ensuring the rule of law. Consequently, it endorsed the Commission's view that Article 102 could only deny the right to bring legal proceedings exceptionally where (i) the legal action cannot reasonably be considered as an attempt to establish the rights of the undertaking concerned and can therefore only serve to harass the opposite party; and (ii) the action is conceived in the framework of a plan whose goal is to eliminate competition.

An important difference to ordinary cases of patent litigation, however, is, as has already been stressed, the fact that the SEP holder has given a FRAND commitment – implying that it will grant licences and will not seek injunctions against licensees who have accepted to agree FRAND licensing terms. In this context, an acceptance that the seeking of an injunction by a patent-holder may, in the exceptional circumstances of the case, constitute an abuse of a dominant position, does not seem to deny the patent-holder access to court or the right to bring legal proceedings. On the contrary, it simply demands (i) that the SEP-holder seek other remedies to safeguard its patent rights in the legal proceedings (such as damages for past infringement and the determination of future FRAND licensing terms) where the infringer is a “willing licensee”; and, if the SEP-holder does seek an injunction, that (ii) the national court consider whether the seeking of any injunction, and its enforcement, would constitute an abuse and, where it does, set aside any national rules which would permit the award of the injunction. National courts have an obligation to set-aside national rules which authorise conduct prohibited by EU law and must not apply national rules which make it virtually impossible or excessively difficult to exercise EU rights - the principle of effectiveness.¹²²

Indeed, the case of *ITT-Promedia* has not operated to preclude previous findings that, in exceptional circumstances, an IPR-holder's refusal to license constitutes an abuse of a dominant position, even though such a holding inherently precludes the IPR holder from exercising its exclusive right over the IPR and protecting it through the seeking of an injunction.¹²³ Similarly, it should not preclude a finding that in exceptional circumstances the seeking of an injunction does not constitute a legitimate exercise of IPR but constitutes unlawful abusive conduct.

Further, it is arguable that, conversely, recognising that a SEP-holder has a right to seek an injunction might have the effect of denying the *implementer* access to the court if, as in Germany it is obliged, in order to avoid the injunction, to give up its

¹²¹ Case T-111/96 *ITT Promedia NV v Commission* [1998] ECR II-2937. For the view that this line of cases (abusive or vexatious litigation) sets out the applicable test for identifying an abuse in cases involving the seeking of an injunctions in relation to a FRAND-encumbered SEP, see Petit, *supra* n 33.

¹²² See *supra* nn 63-65 and text.

¹²³ See *supra* nn 77-78 and text. See also the discussion of *AstraZeneca* *supra* n 91 and text.

right to make bona-fide challenges to the validity and/or infringement of the patent and/or the licensing terms.

E. CONCLUSIONS AND DETERMINING ARTICLE 102 AND FRAND-COMPATIBLE LICENSING TERMS

FRAND commitments are required to ensure that the public benefit of standard setting is not undermined by private profit-maximising of individual SEP-holders. There now seems to be a fairly broad-consensus in both the US and EU amongst antitrust enforcement authorities and courts that “SEP-holders should abide by their F/RAND commitments and refrain from obtaining injunctive relief against willing licensees.”¹²⁴ The ECJ has the opportunity in *Huawei* to clarify whether EU competition law supports this consensus and, if so, precisely when the seeking of an injunction violates Article 102.

The discussion in section D indicates that as the seeking of an injunction may enable SEP-holders in the EU to hold-up implementers willing to pay FRAND royalties and to extract unreasonable royalty terms from them in a manner which threatens competition, such conduct may be abusive where the threat of hold-up is real. Not only might the seeking of an injunction permit the extraction of “unfair” or “discriminatory” licensing terms, but it may compromise the success of the standard setting process and result in anticompetitive effects in the downstream market and, consequently, harm to consumers. Where anticompetitive effects are demonstrable, this paper proposes that the seeking of an injunction by a FRAND-encumbered SEP-holder should be found to be abusive unless the patentee can demonstrate that the injunction application is justified, for example, because the implementer has refused to accept a licence on agreed, or independently determined FRAND terms (by a court or arbitral tribunal) or is unable to pay. Such a conclusion will achieve harmonisation of approach across the EU and will not adversely impact on innovation in technology upstream as long as mechanisms are in place to ensure that SEP-holders can receive royalty rates in respect of past-infringements (together with interest) and in the future which are compatible with Article 102 and the FRAND commitment.

Pressing questions, consequently, are how can “fair”, “reasonable”¹²⁵ and “non-discriminatory” terms be assessed and, in particular, how do these concepts correlate to the principles established in Article 102 cases dealing with the question of whether a dominant firm has imposed unfair selling prices or engaged in prohibited price discrimination? If greater clarity is provided on this matter, the number of disputes will be likely to fall. If clarity is not enhanced, there is risk both that the costs from hold-up and royalty stacking will continue and increase, especially “if more patent owners choose to monetize their patent rights”¹²⁶ and that innovation and contribution to standards will be deterred if patentees are not able to ensure that those utilising them are held to account.

¹²⁴ Kanter, *supra* n 60, 2.

¹²⁵ See *supra* n 20.

¹²⁶ “Patent Challenges for Standard-Setting in the Global Economy”, n 2, 57-8.

Although there is currently no specific EU judicial precedent dealing with the question of precisely what FRAND means and how FRAND licensing royalties can be calculated, a case is being heard in the Mannheim District Court in Germany in which the court is expected to set a rate for a Motorola SEP portfolio relating to wireless telecommunications technology.¹²⁷ These proceedings have, however, been stayed as the court has sought guidance from the Commission on the correct approach to assessing the value of a SEP portfolio and setting a FRAND rate.¹²⁸ Crucial issues to be determined are likely to include:

- (i) how the value of the technology is to be assessed and, in particular, whether it should be based on the value of the IPR before or after the standardisation took place;
- (ii) what the appropriate base for setting the royalty is; for example, whether it should be based on the price of the individual component incorporating the standard or the price of the end product into which the technology is incorporated;
- (iii) how to address the royalty stacking problem and concern that cumulative royalties for the standard may exceed the value of the end product or otherwise risk making downstream businesses unviable for manufacturers.

Competition agencies have to date generally, and understandably, been unwilling to get drawn into answering these questions.¹²⁹ Rather, there is a view¹³⁰ that SSOs should be doing more to tighten contractual provisions and processes, in particular through clarifying the meaning of FRAND commitments,¹³¹ who they bind, and by including a process which the parties must follow to ensure that disputes relating to patent licensing are resolved – using negotiation and, if necessary, courts or arbitration procedures - *prior* to an injunction being sought. SSOs might also consider whether greater use of patent pooling¹³² or joint ex ante negotiations of licensing

¹²⁷ *Motorola Mobility LLC v Apple Inc* Mannheim Higher Regional court, order of 8 November 2013, file no 7 O 241/12. The High Court of England and Wales has also indicated that it would be prepared to do adjudicate on FRAND rates, although no such judgment has yet been forthcoming see *IPCom v Nokia* and *Vringo v ZTE*, *supra* n 34.

¹²⁸ See question 4. The majority of questions raised by the Mannheim District Court remain confidential, however, as they relate to a contractual relationship between the parties (see Foss Patents, “German court stays Google-Apple FRAND rate-setting case, invites EU Commission to participate”, 7 November 2013, <http://www.fosspatents.com/2013/11/german-court-stays-google-apple-frand.html>, accessed on 24 December 2013).

¹²⁹ See Commission sends Statement of Objections to Motorola Mobility - Questions and Answers *supra* n 58 and *supra* D.2.a.

¹³⁰ See DOJ’s six specific suggestions for enhancements to SSO policies; Hesse, *supra* n 22 and MA Lindsay and RA Skitol, “New Dimensions to the Patent Holdup Saga” (2013) 27(2) *Antitrust* 34, referring to a US Supreme Court Opinion, *American Society of Mechanical Engineers v Hydrolevel Corp* 56 US 556 (1982) that exposes SSOs to antitrust liability for anticompetitive harm that occurs as a result of its failure to implement procedures adequate to prevent certain abuses of its processes, and Economists’ Roundtable, *supra* n 95.

¹³¹ See eg, “Patent Challenges for Standard-Setting in the Global Economy”, *supra* n 2, Recommendation 3:1

¹³² For the view that a “pseudo-pool” approach, combining ex-ante disclosure of licensing terms with certain beneficial attributes of patent pools (and involving establishment of aggregate royalty rates for each standard) be utilised to improve the efficiency and usefulness of FRAND commitments

terms¹³³ might present a solution in some situations. As SSOs are likely to find it hard to meet these demands, it seems inevitable that both competition agencies and courts will have to provide answers to the issues raised and the question of when the rates will be compatible with competition law. Indeed, some themes and possible answers to the questions posed above are beginning to emerge, both from some recent high profile cases in the US¹³⁴ and from previous EU jurisprudence and guidance.¹³⁵ These developments indicate that the Commission might, when answering the questions posed by the Mannheim District Court, take the view that the value of the technology should be assessed on the value of the technology prior to standardisation, that the appropriate royalty base for a FRAND royalty should bear the closest possible relationship to the standardized functionality rather than the end product price and that there should be a maximum cumulative royalty established in order to address “royalty stacking” concerns.

First, the Commission’s horizontal co-operation guidelines suggest that a FRAND royalty should relate to the requirement in Article 102 that a dominant firm should not charge a price which is excessive; that is, one which has no reasonable relation to the economic value¹³⁶ of the IPRs.

“The questions ... to be determined are whether the difference between the costs actually incurred and the price actually charged is excessive, and, if the

and to deal with the royalty stacking problem, see Contreras, *supra* n 97. See Shapiro in “Economists’ Roundtable”, *supra* n 95 (“SSOs don’t want to get into other lines of business ... But the notion of having more pools to handle royalty stacking related to standards does seem appealing ...”).

¹³³ US DOJ and FTC, “Antitrust Enforcement and Intellectual Property Rights: Promoting Innovation and Competition” (2007), Chap. 2, 50-57.

¹³⁴ See, *Microsoft v Motorola*, *supra* n 19, and *Innovatio*, *supra* n 19. In each case the judge, being cognisant of the risk both of hold-up and royalty stacking, proceeded on the basis of a hypothetical negotiation between the parties to achieve a reasonable royalty taking account of a range of fact specific factors including, in particular: (1) the importance of the patent portfolio to the standard (the proportion of all patents essential to the standard that are in the portfolio and their technical contribution); (2) the importance of the patent portfolio as a whole to the alleged infringer’s products; and (3) RAND rates determined under other licences for comparable patents.

¹³⁵ There is also a voluminous, and burgeoning, literature on what FRAND means and how FRAND licensing royalties can be calculated, see eg, O’Donoghue and Padilla, *supra* n 67, 689-695 (but cautioning that the “bulk” of the literature has arisen in the context of contentious litigation or administrative agency proceedings and so advocates a particular position), DG Swanson & WJ Baumol, “Reasonable and Nondiscriminatory (RAND) Royalties, Standards Selection, and Control of Market Power” (2005) 73 *Antitrust Law Journal* 1, Chappatte, *supra* n 8, D Geradin and M Rato, “FRAND Commitments and EC Competition Law: A Reply to Philippe Chappatte” (2010) *European Competition Journal* 129, G Sidak, “The Meaning of FRAND, Part I: Royalties”, <http://idei.fr/doc/conf/sic/seppapers2013/sidakwebb.pdf> accessed 24 December 2013, Lemley and Shapiro *supra* n 68, (proposing best practices for SSOs in implementing the FRAND commitment, “[s]ubstantively, our proposal is designed to steer bilateral, *ex post*, negotiations toward royalty rates that reflect the outcome of *ex ante* technology competition ... The key to our approach is to bind patentees to engage in arbitration over the reasonable royalty with any willing licensee, rather than litigating the patents in court”), Mariniello, *supra* n 14 and Carlton & Shampine, *supra* n 14.

¹³⁶ See Case 27/76 *United Brands Co v Commission* [1978] ECR 207, ¶¶ 250-252.

answer to this question is in the affirmative, whether a price has been imposed which is either unfair in itself or when compared to competing products”.¹³⁷

The problems involved in determining costs and establishing a suitable comparison are well-known. In the SEP context, the Commission takes that view that cost-base methods are not appropriate because of the difficulty of assessing the costs attributable to the development of a particular patent or group of patents. It thus proposes a non-exhaustive list of methods that may in certain circumstances be feasible to make the required assessment. For example that: a comparison be made between the licensing fees charged by the SEP-holder in question in a competitive environment before the industry was locked in to the standard and those charged after the industry has been locked in;¹³⁸ an independent expert assessment is obtained of the objective centrality and essentiality to the standard of the relevant IPR portfolio; reference is made to ex ante disclosure of licensing terms in the context of a specific standard-setting process; or royalty rates are compared with those charged for the same IPR in other comparable standards.¹³⁹ This approach seems to accord with a fairly wide acceptance that the requirement that royalties be fair and reasonable requires them to be based on that which the patent holder could have obtained in open, up-front competition with other technologies - linking reasonable return to the ex ante value of the patented technology and with the objective of enhancing the value, and facilitating the use of, the standard.¹⁴⁰ Although there is some support for the opposite view, that the patent holder should be able to extract royalties based on the ex-post-value reflecting the increase in market power following standardisation, after participants are effectively locked in to use technology covered by the patent, it is unclear how such an approach is consistent with the objective of the FRAND commitment and Article 102 TFEU; that SEP holders should not be able to exploit and abuse the market power that arises from inclusion in a standard.

Secondly, in relation to the appropriate royalty base, it has not been clarified whether the non-discrimination requirement of FRAND demands literally no discrimination on royalty rates or licensing terms between similarly situated licensees.¹⁴¹ The royalties agreed by Rambus in the commitments decision, however, were based on the price of an individually sold chip rather than the price of any end product into which the chip was incorporated.¹⁴² In the US, Judge Holderman in assessing the FRAND base in *Innovatio* also concluded that the appropriate royalty base was the WiFi chip and *not* the end product since *Innovatio* failed to “credibly apportion the value of the end

¹³⁷ *ibid.*

¹³⁸ See European Commission, Guidelines on the applicability of Article 101 of the Treaty on the Functioning of the European Union to horizontal co-operation agreements, [2011] C 11/1, ¶¶ 289 - 290.

¹³⁹ *ibid.*

¹⁴⁰ See view of Judge Holderman in *Innovatio*, *supra* n 19 (“patent hold-up is a substantial problem that RAND is designed to prevent” and the RAND rate must “reflect only the value of the underlying technology and not the hold-up value of standardization”).

¹⁴¹ Carlton & Shampine, *supra* n 14.

¹⁴² See *Rambus*, *supra* n 9, ¶¶ 64-66.

products down to the patented features”.¹⁴³ The Competition Commission of India, which is currently in the process of investigating Ericsson’s conduct, has also set out its preliminary view that Ericsson’s practice of charging a royalty based on the value of the end product produced by the implementer is excessive, discriminatory and contrary to FRAND terms.¹⁴⁴

Thirdly, in the US judges have been mindful of the need to ensure that there is a maximum cumulative royalty for the standard as a whole to avoid the risk that downstream innovators are priced out of the market by unreasonable cumulative royalty demands. In the *Microsoft v Motorola* case in the US, for example, the court expressed concern that Motorola’s request was inconsistent with FRAND given that, if its demands were acceded to, “the aggregate royalty to implement the 802.11 Standard, which is only one feature of the Xbox product, would exceed the total product price”. The court thus concluded that a royalty rate that gives rise to such concerns cannot be consistent with (F)RAND and “does not stand up to the central principle of the RAND commitment – widespread adoption of the standard.”¹⁴⁵ Similarly, in *Innovatio*, the court held that the determination of the royalty must address the risk of royalty stacking; there should be a maximum cumulative royalty for the standard as a whole. Accordingly, the court held that “the existing profit margin on chips is the likely ceiling on Innovatio’s RAND royalty, and is therefore an appropriate starting point from which to calculate that royalty”.¹⁴⁶

The German proceedings in both *Huawei* and *Motorola* have afforded the ECJ and Commission respectively with the much needed opportunity to provide clarification on a number of important issues relating to the application of Article 102 to the conduct of dominant SEP-holders and the effect of FRAND licensing commitments. If such guidance is forthcoming then, combined with the US precedents, invaluable assistance is likely to be provided to tribunals and national courts of the EU Member States embroiled in these matters as SEP-holders and implementers submit their FRAND disputes to them for adjudication.¹⁴⁷

¹⁴³ See *Innovatio*, *supra* n 19, 26 and 34.

¹⁴⁴ See <http://www.cci.gov.in/May2011/OrderOfCommission/261/502013.pdf>, accessed on 24 December 2013. The Chinese competition authority is also investigating a suspected abuse of market power by Qualcomm in its licensing negotiations with Chinese implementers, see <http://www.qualcomm.com/media/releases/2013/11/25/chinas-national-development-and-reform-commission-notifies-qualcomm>, accessed on 24 December 2013.

¹⁴⁵ See *Microsoft v Motorola*, *supra* n 19, ¶ 456.

¹⁴⁶ See *Innovatio*, *supra* n 19, 17-19 and 73 -76. See also Contreras *supra* n 97.

¹⁴⁷ *Samsung*, *supra* n 56 ¶ 5. See also commitments negotiated by the FTC in *Google/Motorola* (January 2013).