

Apple Inc.

Response to DG Enterprise and Industry Consultation on Patents and Standards

14 February 2015

Apple, Inc.

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I. EXECUTIVE SUMMARY OF APPLE’S RESPONSE¹

Apple values invention and respects intellectual property. Innovation is the cornerstone of Apple’s business – and its history – and patents are critical to protecting the innovations embodied in Apple’s differentiated products and services. We recognize that we are not alone in investing in and valuing innovation. To this end, our company has a long history of respecting the intellectual property rights of others and taking voluntary licenses when appropriate, reasonable and fair.

It is fundamental that owners of valid, enforceable and infringed patents should be able to obtain reasonable compensation for others’ use of their patented technology. But the right to reasonable compensation is not unbounded. Compensation must be tied to the actual patented invention. Compensation beyond the value of the patented technology is a form of unjust enrichment to be guarded against. Valuation issues are especially acute in the context of standard essential patents (SEPs) that are subject to commitments to license on fair, reasonable and non-discriminatory (FRAND) terms. Apple has witnessed some SEP owners employ a series of tactics intended to leverage royalties beyond the value of their patented inventions.

Apple believes the following topics raised by the Consultation require the most immediate attention:

- **SEP Declarants Are Not Entitled to Special Legal Privileges.** Ownership of a SEP can confer market power, and the obligation of SEP holders to license on FRAND terms is designed to protect against abuses of such power. Nonetheless, some SEP holders seek to hijack the FRAND promise and flip FRAND’s pro-competitive limitations to create new *privileges* that give them the right to assert infringement and collect royalties in a manner not available to any other patent holders. To obtain compensation for patents that are *not* encumbered by a FRAND declaration, patent owners must prove infringement, withstand challenges such as validity and enforceability, and thereafter prove the value of their patented innovations in a damages analysis – separately, for each and every patent. SEP licensors should not be placed above the law. These traditional legal rules and burdens of proof should apply to them equally. Participation in

¹ Response submitted by Apple Inc. (“Apple”), a corporation with its principal executive offices at 1 Infinite Loop, Cupertino, California 95014, United States. The reference person for this response is BJ Watrous, e-mail: bjwatrous@apple.com. Apple manufactures and sells mobile communication devices, media devices, portable digital music players and personal computers. It also sells a variety of related software, services, peripherals, networking solutions, and third-party digital content and applications. Apple does not qualify as a “small and medium sized enterprise” according to the EU definition. Apple is registered in the EU Transparency Register with ID 588327811384-96. Apple approves of the publication of its response. This response does not include confidential information.

standard-setting and the self-declaration of one's allegedly "essential" patents does not give certain patent owners the right to (i) skip the traditional burdens of proof or (ii) stake a special claim to royalties that exceed the value of the patented technology. Such novel privileges would be incompatible with the FRAND obligation.

- **Mandatory "Blanket" Portfolio Adjudication Is Incompatible with FRAND Licensing.** Some SEP holders believe they have the right to a "blanket" portfolio license – that is, the right to require payment of royalties for *all* of the SEPs they may hold that are allegedly essential to a particular standard (or group of standards), even if the applicability or validity of some of those patents is in dispute. Such patent holders, moreover, are unwilling to license any of the patents in their SEP portfolio, or a particular SEP portfolio, unless the licensee agrees to pay for a license to the entire portfolio or at the very least, all the SEPs relevant to a particular standard or suite of technologies. These "blanket" (all or nothing) portfolio demands are incompatible with the commitment to license on FRAND terms. By focusing on the size of a SEP patent portfolio instead of the individual merits of each patent in the portfolio, blanket portfolio licensing can encourage non-FRAND outcomes. Some argue that blanket portfolio licensing is necessary to promote efficiency and to accelerate their time-to-money and return-on-investment, but velocity should not trump veracity. Blanket portfolio licensing practices promote, rather than mitigate, patent hold-up.
- **National Courts Should Remain the Preferred Path to Dispute Resolution.** Efforts to improve and clarify FRAND obligations can reduce uncertainty, assist in building common understandings across industry, and thus encourage the private resolution of licensing disputes. But disputes will still occur. When they do, the transparent and exacting processes of national courts are the best way to analyze the infringement allegations of a SEP holder, challenge the validity and enforceability of any asserted patent, and properly value the contributions of the patented technology. Alternative dispute resolution also can be a useful business tool for private parties who cannot otherwise agree on a FRAND royalty, but only when voluntary and the result of mutual agreement. Moreover, in order to ensure an outcome that is fair, reasonable and non-discriminatory – not just between the dueling parties, but across the total addressable market of would-be licensors and would-be licensees – such alternative dispute resolution processes should be grounded in the merits of individual patents, remain consistent with contemporary concepts of patent valuation (*i.e.*, smallest salable unit, royalty stacking, patent exhaustion, etc.), respect traditional burdens of proof, and be both public and precedential similar to a court decision.
- **License Level Discrimination Violates the FRAND Promise.** Discrimination among implementers – both among and between different levels in the value chain – is incompatible with the promise to license on FRAND terms. Nonetheless, there are those SEP holders that refuse to license some implementers who are otherwise willing and able to pay FRAND compensation. This *selective refusal* to license can be used as a competitive weapon. Many SEP licensors

prefer to license higher in the value chain in an intentional effort to collect a larger royalty on a more expensive product. Such “level discrimination” violates the plain language of the FRAND promise, is contrary to Commission pronouncements about FRAND policy, ignores historical and current licensing practices, and can function as a tool for anti-competitive abuses.

- **Royalty Calculation Methodologies Must Reflect the FRAND Promise.** FRAND compensation should reflect the value of the patented invention. This value should be based on the patent’s merits – separate and apart from any value associated with its inclusion in a standard or any value derived from inclusion in a multi-function device (like an iPhone), and mindful of the aggregate impact of any individual FRAND royalty on the licensee and other implementers (*i.e.*, royalty stacking).
 - Many courts and regulators have embraced the concept of the “smallest salable patent practicing unit” to focus royalty analyses on the patented invention. Under this valuation methodology, the royalty calculation is based on the value of the particular component, sub-component or portion thereof that practices all or substantially all of the patented invention. In many cases, the smallest salable unit will be further apportioned to arrive at a royalty base that best corresponds to the claimed invention. This approach avoids attributing to the patentee any value associated with a particular patent’s inclusion in a standard. It also helps avoid awarding to the patentee/licensor any extra royalties related to the contributions and innovations of others (*i.e.*, marketing and manufacturing investment, component choices, other patented technologies, brand value, etc.).
 - There are over 100,000 patents and applications self-declared to the various cellular standards, held by dozens of different would-be licensors. Any calculation of a FRAND royalty should consider the impact on implementers of stacking these royalties. Evaluating the implications of any one royalty demand, from any one party, on any one patent is important to ensure that no single patentee/licensor is being either over-compensated or under-compensated. In order to guard against excessive royalty stacking, each patentee/licensor of FRAND-encumbered SEPs should be evaluated in view of that licensor’s *pro rata* ownership of all SEPs for the standard in question.
- **Licensors Should Not Be Permitted to Mandate Cross-Licensing of Non-SEPs.** SEP owners should not be permitted to use the market power of the standard to force implementers to cross license their non-SEPs, or to demand additional compensation for their own non-essential technologies. Demanding licenses to non-SEPs should be recognized as an improper use of SEPs as a means to coerce access to an implementer/licensee’s non-essential, differentiating technologies. Such coerced licenses to non-SEPs can undermine beneficial product differentiation and dis-incentivize investments in differentiating innovations.

- **Each Licensor of FRAND-Encumbered SEPs Should Be a “Willing Licensor”.** If an implementer/licensee has an obligation to be a “willing licensee” for purposes of determining whether or not a SEP holder may properly seek an injunction under the competition laws, then so too should a patentee/licensor be required to be a “willing licensor.” The characteristics of a “willing licensor” should include providing timely and adequate information sufficient to enable the would-be licensee to assess whether an offer is FRAND. In addition, a “willing licensor” should be expected to provide a detailed description of its patents, including relevant claim charts, a clear methodology leading to a specific FRAND rate, and sufficient information to allow the implementer to verify the non-discriminatory nature of the offer. If requested, a “willing licensor” also should be willing to extend a “cash-only” licensing offer. Without a “willing licensor”, it is difficult to imagine an “unwilling licensee.” Courts, agencies and standard setting organization (SSO) patent policies should explicitly recognize such obligations, and a “willing licensor” analysis should be required prior to any court’s issuance of injunctive relief for a FRAND-encumbered SEP.
- **Licensors Should Not Be Entitled to Injunctive Relief, Except in Very Limited Circumstances.** The Commission’s *Motorola* and *Samsung* precedents, as well as the Advocate General’s Opinion in *Huawei v. ZTE*, are part of the growing international consensus that injunctive relief based on FRAND-encumbered SEPs against willing licensees is an actionable abuse of the competition laws. In the absence of injunctive rights, the SEP-holder always retains the option of seeking FRAND-level damages using traditional legal procedures. With respect to concerns over bad faith delays or regarding non-European jurisdictions that do not provide for remedies in the event of bad faith litigation tactics, SSOs should consider policy provisions enabling the award of costs and interest among SSO Members to dis-incentivize bad faith abuses by either party.
- **SEP Transparency Should Be Improved.** The current system of self-declaration in SSOs and limited scrutiny by patent offices has resulted in a large number of patents declared as SEPs that turn out to be invalid and/or not actually essential to the implementation of the standard when tested in litigation. This has produced “high-volume/low-quality” SEP portfolios that allow certain SEP owners to claim a disproportionate share of royalties associated with the standard, while insulating their portfolios from robust review. One way to address such concerns could include development of an industry-led “gatekeeping” function”, *i.e.* have a trusted and independent organization vetting and certifying declared patents as more likely than not to be “essential” to a subject standard.

II. INTRODUCTION: APPLE'S CORE INTERESTS IN PROMOTING INNOVATION AND STANDARDIZATION

A. Apple is an Innovator, an Active SSO Participant, and Both a SEP Licensor and Licensee

Apple is one of the world's leading innovators. We invest nearly six billion Euros annually in R&D.² We own tens of thousands of patents and an international portfolio consistently ranked among the strongest³ and most valuable in the world.⁴ Apple is known for its unique and differentiating technology, but we are also a leader and key technological contributor to many SSOs.⁵ As a result, Apple's portfolio includes a significant number of patents declared essential to various industry interoperability and technical standards.

Apple's products implement many standards, and we rely on the commitment of third parties to license their SEPs on FRAND terms and conditions. Apple has SEP licenses with dozens of SEP holders and has paid *billions of dollars* in royalties to license SEPs, including patents allegedly essential to GSM, GPRS, UMTS, LTE, 802.11, H.264, MPEG-2, MPEG-4 and Audio MPEG.

Apple is both a willing licensee and a willing licensor. Whether we are licensing our own FRAND-encumbered SEPs to others or negotiating an inbound SEP license from a third party, we do so based on the foundation of three core principles:

- An appropriate royalty that reflects each licensor's *pro rata* ownership of all patents essential to a particular standardized technology;
- A common royalty base used equally and consistently by all licensees and licensors in royalty calculations, and one that reflects no more than the value of the component (*i.e.*, smallest salable unit) that practices all or substantially all of the patented, standardized technology sought to be licensed; *and*

² Apple, *Annual Report 2014* (“[t]otal R&D expense was US\$ 6.0 billion, US\$ 4.5 billion and US\$ 3.4 billion in 2014, 2013 and 2012, respectively”), available at <http://files.shareholder.com/downloads/AAPL/3848494678x0x789040/ED3853DA-2E3F-448D-ADB4-34816C375F5D/2014_Form_10_K_As_Filed.PDF> (last visited 13 Feb. 2015).

³ See IEEE Spectrum, *Patent Power Scorecard*, 2013, showing that Apple has the most powerful patent portfolio among “electronics” manufacturers, available at <http://spectrum.ieee.org/static/interactive-patent-power-2013#anchor_elec> (last visited 13 Feb. 2015); see also Ambercite, *Apple vs Microsoft vs Google - who has the strongest patent portfolio?* – available at: <http://www.ambercite.com/index.php/amberblog/entry/apple-vs-microsoft-vs-google-who-has-the-strongest-patent-portfolio#sthash.kchEE6Hf.dpuf>.

⁴ The value of Apple's patent portfolio was estimated at around US\$ 20 billion in 2013. See <<http://tinyurl.com/pj43l2c>> (last visited 13 Feb. 2015).

⁵ For instance, Apple was the promoter of the IEEE P1394 Working Group that developed the data transfer standard implemented in Apple's FireWire and Sony's i.LINK. See <<http://1394ta.org/about/>> (last visited 13 Feb. 2015). Apple likewise contributes to ETSI and 3GPP Standards.

- Injunctions should be rarely available, if ever, to licensors of FRAND-encumbered SEPs, especially when monetary compensation is otherwise available to the licensor for the use of its patents.⁶

B. Hold-up Problems Related to SEPs are Real and Should Be Addressed By the Commission to Promote European Markets

The potential for SEP hold-up⁷ is a significant concern for standardization.⁸ The threat of SEP injunctions is real and creates unfair negotiating leverage for licensors. As one SEP-holder's expert witness famously said, it "takes only one bullet to kill"⁹ (*i.e.* a single successful injunction based on a single SEP can force the implementer to settle on the SEP-holder's non-FRAND terms).

Courts in Europe, and in particular in Germany, have been the preferred venues for SEP-based injunctions.¹⁰ Motorola obtained an injunction against Apple in Germany and would have barred standards-compliant Apple products from the German market if Apple had not agreed to settle on Motorola's (abusive) terms.¹¹ Injunctions have been granted based on SEPs by other German courts, even if these have received less public attention.¹²

⁶ See Apple, *Letter from B. H. Watrous Jr., VP and Chief IP Counsel, Apple Inc. to L. J. Romero Saro, ETSI Director General*, 11 November 2011, available at <<http://www.scribd.com/doc/80899178/11-11-11-apple-letter-to-etsi-on-frand>> (last visited 7 Feb. 2015); see also Apple Remarks for ITU Patent Roundtable (Geneva, Switzerland - Oct. 10, 2012), available at <http://www.itu.int/dms_pub/itu-t/oth/06/5B/T065B0000340015PDFE.pdf> (last visited 7 Feb. 2015).

⁷ Hold-up may involve a "take it or leave it" royalty demand made possible by the mere declaration of a patent as standard-essential, and often accompanied by the threat of an injunction. See *Microsoft Corp. v. Motorola, Inc.*, 696 F.3d 872, 876 (9th Cir. 2012).

⁸ *Apple Inc. v. Motorola, Inc.*, 869 F. Supp. 2d 901, 913 (N.D. Ill. 2012) ("[B]ecause a prospective licensee has no alternative to licensing the patent[,] he is at the patentee's mercy.").

⁹ Testimony by Samsung's expert D. Teece in the Google's Motorola Mobility case against Microsoft related to H.264 patents, cited at <<http://www.fosspatents.com/2012/02/motorola-likens-its-enforcement-of.html>> (last visited 13 Feb. 2015).

¹⁰ This fact is conveniently ignored by studies that focus only on litigation in the United States. See, e.g., Gupta, Snyder, *Smart Phone Litigation and Standard Essential Patents*, Working Paper, May 2014, available at <http://www.law.northwestern.edu/research-faculty/searlecenter/events/entrepreneur/documents/Gupta_smartphone-litigation-working-paper.pdf> (last visited 13 Feb. 2015).

¹¹ Commission Decision of 29 April 2014 in Case AT.39985 - *Motorola - Enforcement of GPRS Standard Essential Patents* (hereinafter, "Case AT.39985 – Motorola"), recital 320.

¹² Apple is aware of several examples in Germany including: File No.4a 0 95/97 (Dusseldorf District Court, 7 October 2008) in relation to the MPEG-2 standard; File No.2 U 124/08 and 132/08 (Dusseldorf Court of Appeal, 14 and 28 January 2010) rejecting the appeal against the decision of the Dusseldorf District Court in relation to File No.4a 0 95/97 of 7 October 2008 concerning the MPEG-2 standard; File No.7 O 100/10 (Mannheim District Court, 18 February 2011) in relation to the UMTS standard; File No.6 U 29/11 (Karlsruhe Court of Appeal, 18 April 2011) rejecting the application for preliminary stay of the decision of the Mannheim District

Given the potential enterprise-threatening impact of market exclusion, standards implementers may be forced to accept abusive settlement terms if they perceive even a modest risk of an injunction issuing. Numerous real-life examples show that patent hold-up is a real concern, as the threat of injunctions invariably leads to excessive royalty demands. In a recent US case involving an IEEE standard¹³ the court awarded damages of US\$ 0.0956 per unit, vis-à-vis the SEP holder's initial demands for thousands of dollars per Wi-Fi access point,¹⁴ and eventual in-court royalty demand of US\$ 16.17 per unit. In another recent case, the FRAND rate per Xbox unit was set at US\$ 0.03471, as compared to Motorola's initial demand of US\$ 6-8 per unit.¹⁵ This reduced the claimed royalty rates from about US \$4 billion per year to a FRAND-compliant rate of less than US \$2 million annually.

These types of abusive demands, and many others like them, are made possible by the misuse of SEPs and coercive licensing practices in violation of the FRAND commitment. In these cases, the defendants were large corporations with significant financial means, and so were able to challenge the patent holder's hold up tactics; other parties with fewer resources to fund challenges may have little choice but to succumb to SEP hold-up.

Apple's own experience is that many of the SEPs asserted against it – whether in litigation or in assertive licensing – are not essential to a standard, are invalid, or, at the very least, do not accord the value sought by the patent holder. Studies show that even among the “strongest” patents selected by SEP-holders for litigation, the overwhelming majority – some 70-90% – have been found to be invalid, not essential to the standard, and/or not infringed.¹⁶ This highlights a central problem of SEP licensing: some patent holders seek to leverage the disproportionate hold-up power flowing from a small number of patents to receive compensation for a broad but unmeritorious (and often unchallenged) patent portfolio.

Court in relation to File No.7 O 100/10 of 18 February 2011; File No.4b O 31/10 (Dusseldorf District Court, 7 June 2011) in relation to the ADSL 2/2+ standard; File No.4b O 47/10, 54/10, 64/10, 89/10 and 101/10 (Dusseldorf District Court, 4 August 2011) in relation to the MPEG-2 standard; File No.7 O 122/11 (Mannheim District Court, 9 December 2011) in relation to the GPRS standard - an application for preliminary stay of enforcement was granted in File No.2 U 136/11 (Karlsruhe Court of Appeal, 2 February 2012); File No.7 O 20/11 (Mannheim District Court, 9 December 2011) in relation to the UMTS standard; File No.4b O 273/10 and 274/10 (Dusseldorf District Court, 24 April 2012) in relation to the UMTS standard; File No.2 O 240/11 (Mannheim District Court, 2 May 2012) in relation to the H.264/AVC standard; File No.7 O 114/12 (Mannheim District Court, 15 March 2013) in relation to the 4G standard.

¹³ *In re Innovatio IP Ventures, LLC Patent Litig.*, Case No. 11 C 9308, 2013 WL 5593609, (N.D. Ill. Oct. 3, 2013).

¹⁴ *See In re Innovatio IP Ventures, LLC, Patent Litigation*, Case No. 11-9308, Plaintiff's Amended Complaint, Docket No. 431, paragraph 47 (Oct. 1, 2012) (plaintiff's demanded “that end users of IEEE 802.11 equipment [...] agree to pay thousands of dollars to use components”).

¹⁵ *Microsoft Corp. v. Motorola, Inc.*, No. C10-1823 JLR, April 25, 2013, WL 2111217, (W.D. Wash. Apr. 25, 2013).

¹⁶ *See* Section XII.A *infra* (citing data and studies that 70-90% of asserted SEPs have proved invalid or not infringed).

Such concerns are particularly significant today, as standardized goods proliferate and as some companies with sizeable declared-SEP portfolios exit the product market and turn to patent assertion as a means to replace former product revenues. In some cases, these same declared-SEP holders have teamed-up with non-practicing entities (NPEs) by transferring patents, retaining a financial interest in any future licensing, and – through intentional disaggregation – seeking to profit disproportionately from their declared-SEP portfolios.

C. With the Proliferation of Standardized Technologies, SEP Hold-up Will Impact A Broad Range of European Businesses and Consumers

SEPs are not simply a communications industry issue. A broad range of European consumers and businesses will be impacted by the Commission’s approaches to SEP issues and policies. As the Commission addresses standards issues and the potential for SEP abuses, it should bear in mind that these issues will reach broadly into European markets and new businesses.

III. SEPS ARE *NOT* A PRIVILEGED CLASS OF PATENTS ENTITLING THEIR OWNERS TO UNIQUE LEGAL PROCEDURES

As the European Commission, courts and regulators around the world have recognized, ownership of a SEP can confer market power on an individual SSO participant. Therefore, allowing competitors jointly to develop standards and thus limit technology competition among them requires safeguards to ensure that such activities are on balance pro-competitive. Only a FRAND promise that places meaningful *limitations* on the rights that a patent holder normally enjoys can effectively serve as a safeguard to ensure that standard-setting is pro-competitive and enhances consumer choice.

Given the market power that SEPs confer, they should be (and generally are) accorded more scrutiny than other patents, not less. Yet many SEP-holders seek to flip FRAND’s pro-competitive limitations into new *privileges and entitlements*, including:

- Demanding mandatory blanket portfolio adjudication – thereby avoiding the obligation to prove infringement (and avoiding withstanding legitimate challenges to validity and enforceability) of all the patents it seeks to license, *and*
- Rejecting commonly accepted patent valuation principles, such as ensuring any FRAND licensing demand is closely correlated to the value of the patented invention.

In short, certain SEP holders effectively seek to hijack the FRAND obligation and transform it from a promise to implementers of market access via reasonable licenses into a means to facilitate excessive and unreasonable profits for their licensing businesses.

Consider the rules applicable to “ordinary” patent holders (*i.e.*, those licensing patents that are neither SEPs nor encumbered by the FRAND licensing obligation). In order to collect a royalty, ordinary patent holders must demonstrate that a targeted particular third party infringes the particular patents it seeks to license. Ordinary patent holders must then respond to challenges from the would-be licensor about the patent’s

validity or enforceability and arguments of non-infringement. Finally, ordinary patent holders must prove-up the particular value of each asserted patent to justify their claim to a particular royalty.¹⁷

Some SEP holders want to skip these traditional procedures and substantive requirements. Such SEP holders claim their mere decision to contribute technology to a standard and self-declare patents as allegedly essential gives them special enforcement rights. This is a basic misunderstanding of the FRAND commitment.

The FRAND-commitment that SSOs demand is a *quid pro quo* for the benefits of having one's technology included in a standard and serves as a safeguard against hold-up. It is designed as a rights-*limiting* mechanism. It must not be flipped into a rights-*expanding* weapon against implementers. The FRAND promise is between the patent holder and the SSO. Implementers are third-party beneficiaries of that promise. The patent owner's promise does not eliminate *implementers'* rights to rely on the procedural and substantive protections of national laws.

One common argument from some SEP holders is that they *deserve* to be compensated for their investment in R&D and related standards activities. However, just as with any non-essential patent, any compensation owed to a SEP holder should be tied to the particular patent or patents it seeks to license, not based on the holder's R&D investment. A patent's value is traditionally measured by the value of the claimed technology, not the amount of effort expended by the patent holder in obtaining the patent, much less "failed investments" that did not result in any valuable patented technology. SEP-holders that claim that they should be entitled to compensation to ensure a "fair return" on their collateral investments in standardization are asking SSOs and regulators to disregard well-established principles of patent law, and to compensate them for value that they did not create.

A 2011 study for DG Enterprise by the Fraunhofer Institute on the Interplay between Patents and Standards found that the vast majority of SSO participants viewed generating licensing revenue as the *least* important aspect of owning SEPs – factors such as securing freedom to operate, signaling technological competencies, and the ability to cross-license were viewed as considerably more important.¹⁸ Indeed, some of the SEP-holders that today are the most vocal about the alleged need to "recoup their investment" in standard-setting emphasized the need for reasonable aggregate royalty burdens and cross-licensing at the time when they actually took the decision to contribute their IP to standards.¹⁹ For those companies, demands for a fair "return on investment" have

¹⁷ *Ericsson, Inc. v. D-Link Systems, Inc.*, 773 F.3d 1201 (Fed. Cir. Dec. 4, 2014) (the royalty award must be based *solely* on the incremental value of the patented invention).

¹⁸ Fraunhofer Focus, *Study on the Interplay between Standards and Intellectual Property Rights (IPRs)*, 2011, at 88, available at <http://ec.europa.eu/enterprise/policies/european-standards/files/standards_policy/ipr-workshop/ipr_study_final_report_en.pdf> (last visited 13 Feb. 2015).

¹⁹ See, e.g., Telefonaktiebolaget LM Ericsson, *Comments to the European Commission's Workshop on Intellectual Property Rights and ICT Standards 9*, November 2008 ("individual patent holders

nothing to do with ensuring continued investment in technological standards benefiting consumers, but simply are shorthand for seeking unjust enrichment.

IV. SEP HOLDERS MUST NOT DEMAND PORTFOLIO LICENSING

SEP holders do not have a *per se* right to a portfolio license. This is true in negotiations as well as in any adjudication process. While SEP holders certainly can propose portfolio arrangements and negotiating parties may often decide to resolve their disputes via portfolio licenses, SEP holders should not be allowed to leverage their market position to demand that would-be licensees take only a portfolio license – whether to the SEP holder’s entire portfolio or to a partial portfolio of SEPs.

Forced portfolio licensing raises the same issues of potential abuse of the standardization process – such as increased hold-up risk, unjust enrichment, reduced incentive to challenge invalid or unenforceable patents, and potential patent tying – that are addressed in the next section of this response, addressing Portfolio Adjudication and Blanket Rate Setting.

V. PORTFOLIO ADJUDICATION MUST REMAIN VOLUNTARY AND NOT INVOLVE “BLANKET RATE-SETTING”

The Consultation Questionnaire’s seventh “key issue” addresses approaches to dispute resolution for SEPs.²⁰ This section will provide comment on several suggestions that – as a condition to avoiding a SEP injunction – a standards implementer should be required to agree in advance to worldwide, portfolio-wide rate setting proceedings. We refer to such approaches as “Blanket Rate Setting” because they purport to establish rates in a blanket fashion, without individual assessments of infringement, validity or other issues necessary to establish a basis for whether a would-be licensee should pay for a FRAND license – let alone how much. As the UK High Court has noted: “Although it is a truism that disputes of this kind often end up with a global licence, one needs to be careful turning that truism into something like a right to compel a defendant to enter into such a licence.”²¹

should not set their royalty claims without taking into account the legitimate expectations of other innovators who contribute to the standards. Thus, each patent owner's individual entitlement to royalties after the standard is adopted should be reasonable in light of the proportional contribution of that patent owner's essential patents compared to the total contribution of all other essential patents reading on the standard.”), and Ericsson, *Response to FTC Request for Comments, FTC Standard Setting Workshop* (available at <http://www.ftc.gov/sites/default/files/documents/public_comments/request-comments-and-announcement-workshop-standard-setting-issues-project-.no.p111204-00049%C2%AO/00049-80189.pdf> (last visited 13 Feb. 2015)), at 6 (“if the royalty levels for a standard are cumulatively too high, they will adversely impact and may negate the economic benefits of standardization. It is, therefore, important when negotiating royalty rates that individual licensors take into account the cumulative royalty levels payable by licensees”).

²⁰ Questionnaire, Item 7 (“[i]n some fields standard essential patents have spurred disputes and litigation. What are the causes and consequences of such disputes? What dispute resolution mechanisms could be used to resolve these patent disputes efficiently?”).

²¹ *Vringo v. ZTE*, UK High Court of Justice, 6 June 2013 (emphasis added).

A. Blanket Rate Setting is Contrary to EC Precedent

The Commission recognized in *Samsung* and *Motorola* that an implementer's acceptance of judicial rate setting is only *one way* of showing the implementer's "willingness", and that a patent holder is not entitled to an injunction for the simple reason that the implementer does not agree to such adjudication.²² Similarly, the Advocate General's Opinion in *Huawei* shows that, while not required where the licensor has failed to provide adequate information or not provided an offer with FRAND terms, an appropriate counter offer from the implementer might also serve as an indication of the latter's "willingness".²³ In its recent submission to the OECD, the Commission states that the EC precedents should not be read as requiring the implementer to agree to rate setting on a portfolio basis (as opposed to a rate for the patent in suit) to benefit from a safe harbor.²⁴

Courts and regulators are right to reject mandatory portfolio adjudication, particularly in the form of Blanket Rate Setting. Such approaches lead to inaccurate determinations of FRAND compensation, and moreover run counter to national legal procedures and national patent laws.

²² In *Case AT.39985 – Motorola*, the Commission states that the analysis of the implementer's willingness to enter into a license agreement occurs in the context of whether a prima facie abuse under Article 102 TFEU is "objectively justified." *Id.*, recital 434. It is incumbent upon the dominant undertaking to provide all the evidence necessary to demonstrate that the conduct concerned is objectively justified. See Judgment of 17 September 2007, *Microsoft Corp. v Commission*, T-201/04, EU:T:2007:289, paragraph 688; see also Judgment of 1 July 2010, *AstraZeneca v Commission*, T-321/05, EU:T:2010:266, paragraph 686; Judgment in *Ministère Public v Tournier*, C-395/87, EU:C:1989:319, paragraph 38; Judgment of 12 December 2000, *Aéroports de Paris v Commission*, T-128/98 EU:T:2000:290, paragraph 202. In particular, "it falls on the dominant undertaking to demonstrate any negative impact which an obligation to supply is likely to have on its own level of innovation. If a dominant undertaking has previously supplied the input in question, this can be relevant for the assessment of any claim that the refusal to supply is justified on efficiency grounds." See Communication from the Commission — Guidance on the Commission's enforcement priorities in applying Article 82 of the EC Treaty to abusive exclusionary conduct by dominant undertakings, OJ 2009 , C 45, p. 2, paragraph 90.

²³ See Opinion of AG Wathelet in *Case C-170/13 Huawei Technologies v. ZTE*, EU:C:2014:2391, ("AG Opinion"), paragraph 93 ("Furthermore, if negotiations are not commenced or are unsuccessful, the conduct of the alleged infringer cannot be regarded as dilatory or as not serious if it asks for those terms to be fixed either by a court or an arbitration tribunal.").

²⁴ See OECD, *Intellectual Property and Standard Setting, Note by the European Union, 2 December 2014*, DAF/COMP/WD(2014)117, at 53 ("Even if the Court were to decide along the lines of the opinion by AG Wathelet, this would not mean, however, that all issues surrounding FRAND and SEPs will be solved – there are still several issues that continue to be hotly debated, such as what FRAND actually means concretely (beyond not to seek injunctions against willing licensees), whether the rules must be applied patent-by-patent or to entire patent portfolios, or whether the activities of patent assertion entities possibly raise competition concerns.").

B. Blanket Rate Setting Is Likely To Be Inaccurate and Promote Abusive Licensing Practices

Blanket Rate Setting has the potential to feed abuse in SEP licensing by, among other things, promoting hold-up of licensees and unjust enrichment to licensors.

Blanket Rate Setting limits the incentives of would-be licensees to challenge the validity and infringement merits of the SEPs sought to be licensed, and thereby undercuts the valuable “public notice” function that occurs when courts, in particular, vet asserted patents. There are strong public and private interests served by the removal of invalid patents from the public domain.²⁵ As the Commission has stated, “[i]t is in the public interest to allow challenges to the validity of patents and to ensure that royalties are not unduly paid.”²⁶ A Blanket Rate Setting process, on the other hand, deters challenges to validity, enforceability and infringement.²⁷ And those challenges that are asserted may never even be heard or determined, in the discretion of the adjudicator based on purported timing constraints. Likewise, limiting incentives to challenge infringement would not serve the public interest. As with invalidity, where declared SEPs are determined non-essential, that decision will inure to the benefit of other potential licensees and the industry as a whole. Similarly, inventors of valid, essential SEPs risk having their royalties diluted based on payments for others’ inapplicable patents.²⁸

Blanket Rate Setting can also raise patent tying concerns. In order to access certain valid and infringed FRAND-encumbered patents, the licensee would be required to pay for a package license to patents that may very well include assets that are invalid and non-infringed. In other words, the FRAND rate for the needed patents would be increased to a supra-FRAND amount based on inclusion of unneeded or unwarranted patents. Such mandatory package licensing is not consistent with the FRAND pledge,

²⁵ Case AT.39985 – *Motorola*, recital 378 (“invalidation of the [alleged SEP] would benefit the entire industry and, ultimately, consumers”); *see also*, Commission’s Guidelines on the Application of Art. 81 of the EC Treaty to Technology Transfer Agreements, OJ 2004 C 101/2 paragraph 112 (“The reason for excluding non-challenge clauses from the scope of the block exemption is the fact that licensees are normally in the best position to determine whether or not an intellectual property right is invalid. In the interest of undistorted competition and in conformity with the principles underlying the protection of intellectual property, invalid intellectual property rights should be eliminated. Invalid intellectual property stifles innovation rather than promoting it.”).

²⁶ Case AT.39985 – *Motorola*, recital 491; *see also* *Lear, Inc. v. Adkins*, 395 U.S. 653, 670 (1969) (“If [invalidity challenges] are muzzled, the public may continually be required to pay tribute to [the patentee] without need or justification.”); *Blonder-Tongue Labs., Inc. v. Univ. of Illinois Found.*, 402 U.S. 313, 349-50 (1971) (“[T]he holder of a patent should not be insulated from the assertion of defenses and thus allowed to exact royalties for the use of an idea that is not in fact patentable or that is beyond the scope of the patent monopoly [...]”).

²⁷ This is true regardless of whether challenges might be available *outside* the rate-setting process. A potential licensee faced with no avenue to resolve viable defenses in the rate-setting procedure may have little incentive to file and pursue external invalidation actions for dozens or hundreds of allegedly applicable patents.

²⁸ For a specific discussion on the concept of reasonable royalty, see Section VIII *infra*, and case law cited therein.

and can constitute “unfair trading terms” within the meaning of Article 102 TFEU, as recognized in the Commission’s *Motorola* decision²⁹ and Advocate General Wathelet’s Opinion in *Huawei v ZTE*.³⁰

Moreover, it is unclear how adjudicators specializing in one (or a few) nation’s laws could effectively or accurately evaluate and set rates for patents subject to other laws and requirements. Patents applicable in different jurisdictions, including counterparts descending from the same patent family, regularly differ from one another in substance, and moreover will be subject to different legal requirements and defenses. As the Commission correctly recognized in *Motorola*, suggestions that a licensee must agree to worldwide rate setting procedures or be deemed “unwilling” are not well taken.³¹

C. Blanket Portfolio Adjudication Can Frustrate Each Nation’s Interests In Applying Its Own Laws

The prospect of foreign judges evaluating and setting rates for European patents – in addition to raising concerns over accuracy – raises issues of foreign encroachment on European laws. Does it serve European interests to establish procedures that can be used to force European companies (at the risk of foreign SEP injunctions and loss of access to foreign markets) to agree to adjudicate FRAND rates for European patents before foreign courts? Should an American, Korean or Chinese court be authorized – without the licensee’s voluntary consent – to set rates for French, Italian and German patents? Such foreign adjudications of European patents must be expected if proposals for Blanket Rate Setting are adopted, as the patent owner would have *carte blanche* to choose the international jurisdiction where it will pursue its worldwide FRAND compensation.

VI. ALTERNATIVE DISPUTE RESOLUTION MECHANISMS MUST REMAIN VOLUNTARY AND RESPECT CERTAIN SAFEGUARDS

The Commission’s seventh consultation “key issue” also seeks views regarding alternative dispute resolution mechanisms such as arbitration.

National court proceedings are (and should remain) the preferred method for dispute resolution of patents, particularly FRAND-encumbered SEPs. The transparency and diligence of individualized patent assessment in such national litigations make it the

²⁹ Case AT.39985 – *Motorola*, recital 386 (“In the *Der Grüne Punkt – Duales System Deutschland GmbH* (“DSD”) case, the Union Courts held that it was abusive for a dominant undertaking to require a royalty payment for the use of a trade mark when the licensee was not actually using the service denoted by the trade mark. In the same vein, in this case, Motorola’s seeking of royalty payments for the use by the iPhone 4S of SEPs that Apple may not be infringing, amounts to Motorola requesting the payment of potentially undue royalties, without Apple being able to challenge such infringement.”).

³⁰ AG Opinion, paragraph 96 (“As regards the use of the teaching of a patent, undertakings which implement a standard clearly do not have to pay for intellectual property which they are not using.”).

³¹ Case AT.39985 – *Motorola*, recitals 437, 490.

appropriate venue to ensure that a would-be licensor is receiving appropriate FRAND compensation for a patent that is truly essential, infringed, valid and enforceable.

Voluntary mediation and arbitration can be useful tools for private parties to resolve a dispute when they are unable to reach a negotiated outcome. But these business tools have always been and should remain voluntary, and should include procedural safeguards that will help ensure the outcome is FRAND – not only to the parties, but in a way that can benefit other would-be licensors and licensees.

One reason mandatory arbitration would be poor SEP policy and inconsistent with the FRAND promise is because arbitration, as a process, often lacks the kind of procedural safeguards to ensure effective and consistent application of the EU competition rules. For instance, Article 15 of Regulation 1/2003 and Article 267 TFEU provide for national courts' ability to seek guidance from the Commission and the Court of Justice.³² Arbitration, on the other hand, is typically confidential, depriving other standards implementers of instructive precedent that could promote consistent treatment of FRAND disputes, and facilitating discriminatory licensing practices. Moreover, mandatory arbitration could invite a wholesale delegation of competition law disputes (which FRAND-disputes regularly are) to private bodies, and reliance on such a "solution" would thus be contrary to the Commission's interests and obligations in enforcing the competition rules.³³

On the other hand, voluntary arbitration has the potential to serve a useful role as an option for disagreeing parties to resolve disputes over the licensing of declared SEPs *if and only if* the process is focused on accuracy, protects the interests of both the patentee/licensor and implementer/licensee, is consistent with FRAND principles, and both parties voluntarily and mutually agree to the process. While the specifics of such voluntary processes are generally up to the parties' mutual agreements, to promote a FRAND result such processes should generally reflect the following principles:

- ***Traditional Burdens of Proof:*** The SEP-holder should bear its traditional burdens of proof and must prove by a preponderance of the evidence both (i) infringement by the particular implementer/licensee, and (ii) the right to a particular FRAND royalty. This may be most efficiently accomplished by bifurcating issues of liability and damages. First the SEP-holder must prove that the potential licensee actually infringes asserted patents that the SEP-holder has declared essential to industry

³² The relevance of such safeguards is underscored by the reference from the Düsseldorf Court in *Huawei Technologies v. ZTE* and the order of the Mannheim Court of 8 November 2013 in *Motorola Mobility v. Apple*, which asks the Commission to opine on key aspects of determining a FRAND rate for patent portfolios. See < <http://www.fosspatents.com/2013/11/german-court-stays-google-apple-frand.html> > (last visited 13 Feb. 2015).

³³ The General Court has made it clear in its 2007 *Microsoft* Judgment that the Commission does not have unlimited freedom to delegate its powers of investigation and enforcement to private enforcement agents – in that respect, an arbitral tribunal is no different to a monitoring trustee: Judgment in *Microsoft Corp. v Commission*, EU:T:2007:289, paragraphs 1251 to 1279. See also Judgment of 27 June 2012, *Microsoft Corp. v Commission*, T-167/08, paragraphs 115 and 116.

standards. It must also meet its burden of proof in responding to challenges to the validity and enforceability of those patents. The question of the value of the SEP-holder's portfolio can only be addressed once the SEP-holder has established that it holds valid, infringed and enforceable SEPs. Only then must the SEP-holder also prove that it is entitled to a particular FRAND royalty for those patents found valid, enforceable and infringed.³⁴

- **Meaningful discovery:** The licensee should be entitled to meaningful discovery into the terms of the patent holder's other licenses, and the patents that it believes are essential to the standard in question. Only with meaningful discovery into the merits of the patent infringement claim and the royalty demand will a would-be licensee be able to analyze the patent holder's claims of patent infringement and essentiality, as well as properly test whether the associated royalty demand is fair, reasonable and non-discriminatory.
- **Transparent, reasoned decision by arbitrators:** The arbitrator's decision should be public (to the greatest extent possible), with robust written reasoning rather than confidential and perfunctory determinations. At a minimum, the arbitrator should outline the methodology used to establish the value of the SEPs. This type of transparency can create a body of decisions that will assist arbitrators in future cases to analyze FRAND demands, and also is likely to help promote resolutions without litigation or arbitration by providing licensors and licensees with clearer expectations.
- **Meaningful appellate review:** Because FRAND rate-setting cases are significant and have the potential to impact royalties paid to and demanded of others, both for the parties and industry participants more generally, substantive appellate review should be available.

The arbitration process also should specify a common set of core valuation principles to promote consistency in the award of a FRAND royalty across all would-be licensors and licensees. This common set of core principles should promote reasonableness, guard against unjust enrichment, and prevent discrimination among licensors and licensees:

- **Royalty Base:** The royalty base should be common in SEP licensing discussions across a common industry. The base should be specifically linked to the alleged standardized and patented functionality. In the context of cellular SEPs, for example,

³⁴ One common demand of SEP licensors seeking to adjudicate a portfolio license is to select and test a small collection of “proud” or proxy patents. For the reasons detailed above, this approach is suspect and unlikely to lead to a FRAND outcome – for the simple reason that “proxy patents” are rarely a true representation of the merits and value of a patentee’s entire portfolio. In circumstances where parties voluntarily and mutually agree to such proxy procedures, special considerations should be employed to help guard against unjust enrichment. One such step would be to have each party – in addition to identifying proxy patents from their own SEP portfolio – also select for evaluation a representative sample of patents from the *other party’s* SEP portfolio. Alternatively, parties might decide that a random sampling of the portfolio could be a more accurate and representative.

the common base should be *no more than* the smallest salable patent practicing unit (*i.e.*, the baseband processor) where all or substantially all of the patented, standardized technology is practiced. And that royalty base should be further apportioned, if necessary, to closely correspond only with the asserted SEPs. As explained in Section VIII, this is a starting point, but an important one to ensure that the SEP licensor does not receive unjust enrichment by taxing a base beyond its patented, inventive contributions.

- **Royalty Rate:** The royalty rate should reflect both the *pro rata* ownership of the would-be licensor (as compared to all other would-be licensors of patents essential to the same standard), and the consequences to the implementer if other SEP licensors adopted similar rates, *i.e.* royalty stacking (see Section VIII).
- **Actual Value of Technology:** The royalty rate must be based on the value of the patented technology, not including any other value associated with its inclusion in the standard or an associated end product.

VII. LICENSE LEVEL DISCRIMINATION VIOLATES THE FRAND PROMISE

A key aspect of the FRAND obligation is that the patent holder cannot selectively refuse to license certain implementers. Yet certain SEP-holders claim to be entitled to do just that, by unilaterally (and often on an *ad hoc* basis³⁵) stipulating that they will license only certain levels of the supply chain (“Level Discrimination”).

At the most extreme end of the scale are patent trolls that seek to hold up small business users or even consumers for royalties for declared SEPs, such as Innovatio, a

³⁵ Companies that have championed the pursuit of Level Discrimination have themselves repeatedly and systematically violated their own purported licensing restrictions, or changed course for no apparent reason. For example, despite its “policy” of only licensing OEMs, one prominent European patent holder has licensed chip companies on multiple occasions, and – after initially refusing licenses to certain SEPs – has now offered licenses to chip companies. *See, e.g.*, Qualcomm, *Ericsson and Qualcomm Reach Global CDMA Resolution*, 25 March 1999, available at <<http://www.qualcomm.com/media/releases/1999/03/25/ericsson-and-qualcomm-reach-global-cdma-resolution>> (last visited 13 Feb. 2015) (license including ITU patents to component manufacturer); and also Ericsson, *Business Review 2002*, available at <http://www.ericsson.com/res/investors/docs/annual-reports-1970-2002/business_review_2002_eng.pdf> (last visited 13 Feb. 2015) (reporting licenses with “six of the top semiconductor producers – Infineon, Intel, National Semiconductor, Philips Semiconductors Samsung and STMicroelectronics”); *Ericsson Inc. v. D-Link Sys., Inc.*, Case No. 6:10-cv-473, Memorandum Opinion and Order, Docket # 615 (E.D. Tex. Aug. 6, 2013) (noting that after prior refusals to license component supplier, the patent holder ultimately offered a license to the asserted patents in March 2013). Likewise, a prominent industry chip company has both obtained licenses from various OEMs, and itself licensed at least one chip company. *See, e.g.*, Qualcomm, *Nokia and Qualcomm Enter Into a New Agreement*, 24 July 2008, available at <<https://www.qualcomm.com/news/releases/2008/07/23/nokia-and-qualcomm-enter-new-agreement>> (last visited 13 Feb. 2015) (noting cross-agreements between OEM and chip company); *Qualcomm and Broadcom Reach Settlement and Patent Agreement*, available at <<http://www.broadcom.com/press/release.php?id=s379764>> (last visited 13 Feb. 2015) (noting license agreement with chip company).

company that recently acquired and asserted patents based on purported essential features allegedly embodied in Wi-Fi chips.³⁶ Rather than offering licenses to chip makers or OEMs (such as Wi-Fi router manufacturers), Innovatio targeted retail establishments and hotels, seeking royalties for use of the Wi-Fi chips calculated based on considerations (such as the square footage of the retail establishment or the number of hotel rooms) that clearly bore no relationship with the value of the patented technology.³⁷ Similarly an entity named “MPHJ Technology Investments” pursued a licensing campaign targeting small businesses for the use of the scanning function in office copiers, demanding US\$ 900 to US\$ 1,200 per employee.³⁸ The rationale for targeting lower levels of the supply chain is obvious: such businesses are highly vulnerable to the threat of having their business shut down by injunctions or saddled with litigation costs, and thus often more willing to give in to the patent holder’s demands.

This problem is not reserved to patent trolls or small companies. A notable SEP licensor recently acknowledged, “[o]ne big advantage with this strategy is also that it is likely that the royalty income will be higher since we calculate the royalty on a more expensive product.”³⁹ In other words, downstream levels of the supply chain may be targeted simply because of their higher revenues and (it is hoped) higher royalty rates. But FRAND rates are FRAND rates. A patent holder should be able to justify its FRAND rate – and willing to accept FRAND compensation in return for a license – regardless of the business model of the particular licensee.

Level Discrimination is clearly contrary to the FRAND promise, undermines the FRAND ecosystem, and threatens business continuity. The purported justifications for Level Discrimination cannot possibly support the associated harms to the standards infrastructure. The U.S. Department of Justice recently reviewed and approved an SSO provision prohibiting level discrimination, and clarified that the provision adds “clarity as to who is entitled to a license under the IEEE RAND Commitment and has the potential

³⁶ See *In re Innovatio IP Ventures LLC Patent Litigation*, 2013 WL 5593609 (N.D. Ill. Oct. 3, 2013).

³⁷ See *In re Innovatio IP Ventures, LLC, Patent Litigation*, Case No. 11-9308, Plaintiff’s Amended Complaint, Docket No. 431 (Oct. 1, 2012). Innovatio’s licensing demands reportedly calculated to *thousands of dollars per Wi-Fi chip*, *Id.* paragraph 47.

³⁸ According to public reports: “MPHJ Technology Investments sent letters to hundreds of small and medium-sized businesses across the country, including two non-profits, telling them that they violated a patent if they used a type of scanner typically found on office copiers. Providing no specific evidence of patent infringement, MPHJ demanded US\$ 900 to US\$ 1,200 per employee for a license to use the patent. For some of the small businesses that were targeted, it made more financial sense to pay the erroneous license fee than to fight the troll in court.” See Bramble, *Patent Trolls Spell Trouble for America’s Economy*, 18 November 2013, available at <<http://blogs.reuters.com/great-debate/2013/11/18/patent-trolls-spell-trouble-for-american-economy>> (last visited 13 Feb. 2015).

³⁹ See Foss Patents, *Ericsson Explained Publicly Why it Collects Patent Royalties from Device (Not Chipset) Makers*, available at <<http://www.fosspatents.com/2014/01/ericsson-explained-publicly-why-its.html>> (last visited 13 Feb. 2015).

to facilitate implementation of IEEE standards, to the benefit of consumers, and is unlikely to cause competitive harm”.⁴⁰

Restricting the licensing obligation to some implementers, and not others, also violates the express requirements of the FRAND obligation. The Commission has previously interpreted the FRAND promise to prohibit Level Discrimination:

In order to ensure effective access to the standard, the IPR policy would need to require participants wishing to have their IPR 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 commitments can prevent IPR holders from making the implementation of a standard difficult by refusing to license ... after the industry has been locked-in to the standard.⁴¹

The United States’ top appellate court for patent matters recently ruled that royalty calculations for essential patents must not include any value based on the patent holder’s typical abilities to restrict or limit its willingness to license.⁴² In other words, “a patent holder who participates in the standard-setting activities and makes a F/RAND licensing commitment is implicitly saying that she will license the patent claims that must be used to implement the standard to *any licensee* that is willing and able to comply with the licensing terms embodied in the commitment.”⁴³

A review of the FRAND licensing policies of some prominent SSOs demonstrates that Level Discrimination is not authorized by the FRAND promise. For example, the ITU’s patent policy requires that FRAND declarants confirm that they are “prepared to grant a license to an *unrestricted number of applicants* on a worldwide, non-discriminatory basis and on reasonable terms and conditions to make, use and sell implementations of the” applicable standard. Claims that a patent holder may unilaterally restrict such “unrestricted” licensing obligations are simply incorrect.⁴⁴ As one United

⁴⁰ U.S. Department of Justice, *Business Review Letter 15-1, Institute of Electrical and Electronics Engineers, Incorporated* (“IEEE”), (2 February 2015) (the “IEEE Business Review Letter”), available at <<http://www.justice.gov/atr/public/busreview/311470.htm>> (last visited 13 Feb. 2015), at 14.

⁴¹ Communication from the Commission – Guidelines on the applicability of Article 101 of the Treaty on the Functioning of the European Union to horizontal co-operation agreements, OJ 2011 C11, p. 1, paragraphs 285-287.

⁴² *Ericsson, Inc. v. D-Link Systems, Inc.*, 773 F.3d 1201 (“[T]he licensor’s established policy and marketing program to maintain his patent monopoly by not licensing others to use the invention [is not relevant for SEPs]. [...] Because of Ericsson’s RAND commitment [...] it cannot have that kind of policy for maintaining a patent monopoly.”) (emphasis added).

⁴³ Renata Hesse, U.S. Department of Justice, *Six ‘Small’ Proposals for SSOs Before Lunch* (October 10, 2012), available at <<http://www.justice.gov/atr/public/speeches/287855.pdf>> (last visited 13 Feb. 2015), (emphasis added).

⁴⁴ Some have asserted that it is permissible to refuse licenses to some applicants so long as “access” is provided to the SEPs via licenses at other levels of the supply chain. This is a red herring. The

States appeals court has held, “[t]his language admits of no limitations as to who or how many applicants could receive a license (‘unrestricted number of applicants’).”⁴⁵ Likewise at ETSI there is no right to discriminate among classes of licensees included in the IPR Policy. Rather, the ETSI undertaking requires the granting of rights to not only sell patented technologies, but requires that the patent holder offer licenses to make standardized products, as well as to sell and use them.⁴⁶ Particularly given that OEMs such as Apple do not “make” all of the standardized components that they incorporate into their devices, the ETSI rules instruct that licenses are and must remain available to manufacturers of standardized components. Moreover, the ETSI IPR Policy Guidelines clarify that all members and all third parties shall have the right “to be granted licenses on fair, reasonable and non-discriminatory terms and conditions in respect of a standard.”⁴⁷

VIII. FRAND ROYALTY CALCULATIONS MUST REFERENCE AND REFLECT THE VALUE OF THE PATENTED INVENTION, *NOT* THE VALUE OF THE STANDARD, UNPATENTED COMBINATIONS OR CONTRIBUTIONS OF OTHERS

The Consultation Questionnaire’s sixth “key issue” addresses the meaning of the FRAND undertaking, and the principles and methods necessary to evaluate whether compensation sought by a patent owner is, or is not, consistent with FRAND.⁴⁸ This section will focus on three core principles that must be considered in evaluating such issues:

- Ensuring that the patent owner is compensated only for technologies that she invented, and *not* compensated based on the public benefit and value of standardization itself. To accomplish this, royalties should be set based on the actual value of the patented technology, considered apart from its inclusion in a standard;
- Ensuring that the patent owner is compensated only for technologies that she invented, and *not* compensated for other technologies or uses that she did not invent and patent. To best align compensation with the patent holder’s actual

ITU’s policy, Guidelines and Licensing Form are clear that a SEP holder must provide access to SEPs specifically by *licensing* them to any applicant willing to pay FRAND compensation.

⁴⁵ *Microsoft Corp. v. Motorola, Inc.*, 696 F.3d 872, 884 (9th Cir. 2012).

⁴⁶ See ETSI, *ETSI Rules of Procedure, 19 November 2014, Annex 6 ETSI Intellectual Property Rights Policy*, (“ETSI Intellectual Property Rights Policy”) section 6.1, available at <<http://www.etsi.org/images/files/IPR/etsi-ipr-policy.pdf>> (last visited 13 Feb. 2015).

⁴⁷ See ETSI, *ETSI Guide on Intellectual Property Rights* (adopted September 19, 2013), available at <<http://www.etsi.org/images/files/IPR/etsi-guide-on-ipr.pdf>> (last visited 13 Feb. 2015). Other SSOs policies similarly require licensing to companies willing to pay a FRAND rate, without permitting discrimination against some classes of companies.

⁴⁸ Questionnaire, Item 6 (“Many standard setting organizations require that patents on technologies included in their standards are licensed on “fair”, “reasonable” and “non-discriminatory” (FRAND) terms, without however defining these concepts in detail. What principles and methods do you find useful in order to apply these terms in practice?”).

inventive contribution, in most cases compensation for infringement should be calculated with reference to the “smallest salable patent practicing unit with a sufficiently close relation to the claimed functionality,” and may require further apportionment to correspond to the relevant technology;⁴⁹

- Ensuring that overall royalty levels remain reasonable while encouraging investment in and promulgation of standards by recognizing all would-be SEP licensors should have the opportunity to share in the FRAND royalties associated with a standard and as such, particular FRAND royalties collected by each licensor on each of its SEPs, but take into account royalty stacking and a licensor’s *pro rata* ownership of all self-declared SEPs relevant to a particular standard.

Negotiating parties and decision-makers can methodologically strive to guard against unjust enrichment by implementing these core FRAND principles in their royalty analysis. Taken together, these three key methodologies help to ensure that FRAND royalties correspond closely to the patent owner’s actual inventive contribution.

A. SEP Owners Must Not Co-Opt The Value of Standardization

Patent holders that contribute technologies to a standard are entitled to reasonable compensation for the value of their patented contributions. But they should not be permitted to co-opt additional value that is beyond their creation, and is instead a product of standardization itself.⁵⁰ The United States Federal Circuit, the country’s top appellate court for patent matters, recently addressed this issue, and explained the need for careful methodologies to prevent unjust enrichment of SEP holders. It explained:

As with all patents, the royalty rate for SEPs must be apportioned to the value of the patented invention. [...] [T]he patentee’s royalty must be premised on the value of the patented feature, not any value added by the standard’s adoption of the patented technology. *These steps are necessary to ensure that the royalty award is based on the incremental value that the patented invention adds to the product, not any value added by the standardization of that technology.* [...] When a technology is incorporated into a standard, it is typically chosen from among different options. Once incorporated and widely adopted, that technology is not always used because it is the best or the only option; it is used because its use is necessary to comply with the standard. In other words widespread adoption of standard essential technology is not entirely indicative of the added usefulness of an innovation over the prior art. This is not meant to imply that SEPs never claim valuable technological

⁴⁹ See, e.g., *VirnetX, Inc. v. Cisco Sys., Inc.*, 767 F.3d 1308, 1329 (Fed. Cir. 2014); *Ericsson, Inc. v. D-Link Systems, Inc.*, 773 F.3d 1201.

⁵⁰ Mere inclusion in a standard can artificially inflate a technology’s value. “Once incorporated and widely adopted, the technology is not always used because it is the best or the only option; it is used because its use is necessary to comply with the standard.” *Ericsson*, 773 F.3d at 1233. Consequently, “widespread adoption” of the standard essential technology is not entirely indicative of the actual usefulness of an innovation over the prior art.” *Id.*

contributions. We merely hold that the royalty for SEPs should reflect the approximate value of that technological contribution, not the value of its widespread adoption due to standardization.⁵¹

By carefully focusing on the technical value of the patent, and not including value attributable to the market power⁵² gained due to a patent's inclusion in a standard, parties and (if necessary) courts can eliminate "hold up value" from the FRAND rate-setting analysis while providing fair compensation to the patent owner calculated based on the value of its contribution. In particular, this requirement "is meant to exclude from the rate the value arising from the cost or inability of implementers to switch from technologies included in a standard".⁵³

B. FRAND Compensation Should Be Based on the Patented Technology, Not On Unpatented Combinations or Uses of the Patented Technology

To restrict unjust enrichment or over-valuation of patented contributions, it is also necessary to focus compensation on the actual, patented inventive contribution of the SEP licensor, and not on value created by unpatented combinations or uses of the patented item. This methodology is sometimes referred to as the "smallest salable unit" approach, and is yet another application of the rule that FRAND methodologies must be tailored to carefully focus compensation for SEPs on the value of the patented technology itself.

1. "Price Discrimination" Based On Unpatented Features Violates FRAND

Royalty demands based on downstream product values can be inherently discriminatory because they can lead to different royalties by different implementers for use of the very same licensed technology on different devices. Prices of downstream products vary widely because of features unrelated to the standardized technology (such as form factor, memory or processor speed, marketing and advertising, additional features and functionalities, brand value, etc.). Therefore, royalties based on downstream product values can co-opt and add-on value that is otherwise attributable to these non-patented features.

FRAND compensation must focus on reasonable rewards to the patent holder for the patent holder's patented invention, not rewards for downstream uses of technology that the patent holder never invented or claimed. If the patent holder did not invent and claim a novel use of the technology in a downstream device, then the patent holder would be seeking compensation for value that it did not invent – which is clearly contrary to EU

⁵¹ *Ericsson, Inc. v. D-Link Systems, Inc.*, 773 F.3d 1201, 1223, emphasis added.

⁵² "When the standard becomes widely used, the holders of SEPs obtain substantial leverage to demand more than the value of their specific patented technology." *Microsoft Corp. v. Motorola, Inc.*, No. C10-1823-JLR, 2013 WL 2111217, at *10 (W.D. Wash. Apr. 25, 2013); *see also Broadcom Corp. v. Qualcomm Inc.*, 501 F.3d 297, 310 (3d Cir. 2007) ("In this unique position of bargaining power, the patent holder may be able to extract supracompetitive royalties from the industry participants.").

⁵³ IEEE Business Review Letter, at 11.

precedent.⁵⁴ In other words, where a SEP is directed to technology implemented at one level of the supply chain, requiring payments based on the unit pricing of downstream products incorporating the lower-level technology can be abusive and dis-incentivize the development of valuable improvements.⁵⁵

In view of such concerns, courts routinely insist that compensation be carefully aligned with patent scope. For example, as one court recently noted in overturning an excessive FRAND damages award relating to alleged Wi-Fi SEPs:

[W]here multi-component products are involved, the governing rule is that the ultimate combination of royalty base and royalty rate must reflect *the value attributable to the infringing features of the product, and no more*. As a substantive matter, it is the “value of what was taken” that measures a “reasonable royalty” under [applicable law]. What is taken from the owner of a utility patent [...] is only the patented technology, and so the value to be measured is only the value of the infringing features of an accused product.⁵⁶

By contrast, including the value of unpatented features in a royalty calculation would award compensation to a patent holder for features that do not infringe, and base rate calculations on aspects of the downstream device that are beyond the scope of the SEP holder’s invention or its contribution to the standard. Suggestions that FRAND compensation should include rates based on price discrimination relating to unpatented features should be rejected.

2. Reference to the Value of the Smallest Salable Unit Can Provide the Necessary Correlation Between SEP Rates and Invention Scope

Courts and regulators have developed and adopted the requirement that damages usually should be calculated with reference to the “smallest salable patent practicing unit” to ensure that compensation to a patent holder will be carefully and narrowly tailored to the patent holder’s actual invention. Moreover, where the smallest salable unit is over-inclusive, further apportionment may be required. As one US court explained, the smallest salable unit approach is “intended to produce a royalty base much more closely

⁵⁴ See Case C-385/07 P, EU:C:2009:456 – *Der Grüne Punkt – Duales System Deutschland v Commission*, paragraphs 141-147 (obligation to pay trademark royalties with respect to the licensor’s services that the licensee does not use constitutes an “unfair trading condition” in violation of Article 102 TFEU), cited AG Opinion, paragraph 96 (“undertakings which implement a standard clearly do not have to pay for intellectual property which they are not using”).

⁵⁵ For example, where a patent holder unfairly extracts royalties based on the value of unpatented improvements, it may reduce the profits and royalties potentially available to inventors and licensors that might otherwise develop, patent and license downstream improvements.

⁵⁶ *Ericsson, Inc. v. D-Link Systems, Inc.*, Case No. 13-1625 at 39-40 (Fed. Cir. Dec. 4, 2014) (available at <http://www.cafc.uscourts.gov/images/stories/opinions-orders/13-1625.Opinion.12-2-2014.1.PDF> (last visited 13 Feb. 2015)) (emphasis added, citations omitted).

tied to the claimed invention than the entire market value of the accused products.”⁵⁷ In that case, the court overturned a damages award against Apple where the patent holder failed to base its demands on the value attributable to the patented features, and instead sought compensation based on the entire value of the downstream product.⁵⁸

In the Commission’s *Rambus* investigation, Rambus’s alleged abuse of its computer memory patents was resolved based on Rambus’s commitment to offer licenses at certain rates. The Commission accepted Rambus’s proposed commitments only after “Rambus clarified that the royalty shall be determined on the basis of the price of an individually sold chip and not of the end-product.”⁵⁹ This requirement applied regardless of whether the memory devices were individually sold or incorporated into downstream products, and was further apportioned (via use of a royalty cap) where the chip itself included multiple functions.⁶⁰ As with the cases referenced above, the Commission’s requirements in the Rambus investigation helped to ensure that royalty calculations remained focused on the patent holder’s actual technical contributions.⁶¹

⁵⁷ *VirnetX, Inc. v. Cisco Systems, Inc.*, 767 F.3d 1308, 1327-28 (Fed. Cir. 2014); *see also LaserDynamics, Inc. v. Quanta Computer, Inc.*, 694 F.3d 51, 67-68 (Fed. Cir. 2012) (“It is not enough to merely show that the disc discrimination method is viewed as valuable, important, or even essential to the use of the laptop computer. Nor is it enough to show that a laptop computer without an ODD practicing the disc discrimination would be commercially unviable...But proof that consumers would want a laptop computer without such features is not tantamount to proof that any one of those features alone drives the market for laptop computers [...]. It is this latter and higher degree of proof that must exist to support an entire market value rule theory.”) *Id.* at 25-26.

⁵⁸ *VirnetX*, 767 F.3d at 1327-28. Of course, depending on the patented technology and the market for the end products, further apportionment beyond the smallest salable unit may be necessary. For example, as the courts have recognized, where the patent addresses technology focused on only a portion of the smallest salable unit, there may need to be additional apportionment to focus the compensation inquiry more precisely on the patented technology. *Id.* Again, the key focus is to ensure that compensation will be aligned with the scope of the patent holder’s actual contribution.

⁵⁹ Commission Decision of 9 December 2012 in Case COMP/38.636 – *Rambus*, recital 66.

⁶⁰ *Id.*

⁶¹ Some courts have adopted a “substantial embodiment” test to determine the focus of the patent holder’s rights and potential damages. That is, a component of a product may in some circumstances qualify as a “patented item” even if it does not practice every element of the claims, so long as it “embodies essential features of [the] patented invention.” *See Quanta Comp., Inc. v. LG Elecs., Inc.*, 553 U.S. 617, 636 (2008). Such a component may be found to substantially embody a patent where “the only step necessary to practice the patent is the application of common processes or the addition of standard parts [such that] [e]verything inventive about each patent is embodied in the [component].” *Id.* at 632. In the FRAND rate-setting context, this suggests that a patent holder should not be permitted to unduly expand its invention by simply grafting on cursory “system level” elements to its patent claims. That is, FRAND compensation should remain directed to and focused on the patent holder’s inventive contribution, and not be unduly enhanced based on creative attorney claims-drafting. Requiring that compensation be set with reference to components that substantially embody the relevant patents may help to limit efforts to over-state FRAND rates based on insubstantial tweaks in the claims-drafting process.

In sum, FRAND rate-setting approaches must include clear methodologies to focus compensation on the patent holder's actual patented invention, and not on any value created by others outside the scope of the relevant SEP.⁶² Focusing the FRAND inquiry on the value of the patent apart from its inclusion in the standard, and on the smallest salable unit, provides important safeguards to prevent unjust enrichment and to guard against unreasonable, supra-FRAND compensation.

C. FRAND Royalty Calculations Must Consider the Impact of Other Patents Applicable to the Standard

When addressing FRAND royalties, it is important to assess the impact of royalty stacking in order to address the legitimate interests of both implementers and patent holders.

On the one hand, according to the *Patents and Standards* report for DG Enterprise, royalty stacking relates to the concern that “a standard that is covered by a (very) large number of essential patents might face a high cumulative licensing fee, even if each individual essential patent is available at a relatively low rate. The cumulative fee might even reach a level that prohibits actual implementation (e.g., where the total of licensing fees exceeds the market value of the product).”⁶³ Considering FRAND licensing rates in view of the other patents and licensing claims that may be applicable to the standard helps to protect implementers from excessive royalty demands that could limit promulgation of the standard.

On the other hand, from the patent owner's perspective, royalty stacking is a key methodology to ensure that initial licensors do not obtain undeserved compensation that limits the available compensation to other, equally deserving SEP owners. That is, following the *Patent and Standards* report's conclusion that there can be a limited amount of licensing fees that the market can bear, royalty stacking considerations help to protect against abusive third party licensing demands that unfairly reduce the available

⁶² As a matter of arithmetic, profits could be apportioned in a number of ways: One of the many patents practiced by the iPhone's camera, for example, might be determined to contribute some small percentage to the entire value of the iPhone, or instead some larger percentage to the value of just the camera. But the former method leaves far more room for error. (How could one ever “reliabl[y]” know whether a patent adds 0.0001% or 0.001% of the entire value of a phone with so many physical and software components?) Such imprecision increases the “risk that the patentee will be improperly compensated for non-infringing components of that product”, *LaserDynamics*, 694 F.3d at 67.

⁶³ ECSIP Consortium, *Patents and Standards – A modern framework for IPR-based standardization*, study prepared for the Directorate General for Enterprise and Industry of the European Commission, (hereafter, “Patents and Standards”), pp. 39, 112 (“if technologies are complements, the adopter of the technology (and ultimately the end-user) is subject to multiple monopolists, each of which is eager to extract rents (royalties). Even if these individual royalties are capped by FRAND conditions, the cumulative payable royalty may still become excessive”); *See also In re Innovatio IP Ventures, LLC Patent Litigation*, No. 11 C 9308, 2013 WL 5593609, at *11 (N.D. Ill. Sept. 27, 2013) (royalty-stacking “concern arises because most standards implicate hundreds, if not thousands of patents, and the cumulative royalty payments to all standard-essential patent holders can quickly become excessive and discourage adoption of the standard”).

“pie” of licensing fees available to other SEP owners. Absent such considerations, the first few licensors could effectively deplete available licensing markets, interfering with the ability of other SEP owners to obtain compensation for their own contributions.

Royalty stacking is not a theoretical concern. Royalty stacking can be illustrated by litigated cases and real-world SEP-holder demands. In *Ericsson/D-Link*, the District Court awarded Ericsson a prima facie modest royalty rate of 15 cents per unit for the infringement of three patents that Ericsson had declared essential to the 802.11 (Wi-Fi) standard.⁶⁴ However, given that an estimated 3,000 or more US patents alone have been declared essential to the 802.11 standard, the implied cumulative royalty burden could be as high as US\$ 150 per unit – simply for a device utilizing Wi-Fi functionality.⁶⁵ A recent paper published by *Armstrong, Mueller and Syrett* finds that cumulative announced royalty demands for LTE cellular functionality already amount to US\$ 54 for a US\$ 400 smartphone.⁶⁶ Significantly, that amount reflects only the demands of companies accounting for about half of all patents declared essential to the LTE standard, and excludes demands by other companies that claim to hold large SEP-portfolios and are aggressively asserting their declared SEPs. These amounts are staggering given that the average cost of the baseband processor that implements cellular functionality is as little as US\$ 10 to US\$ 13.⁶⁷

Another recent study found that the average laptop computer implements more than 200 standards.⁶⁸ Many of these standards are based on patented technology and their use thus subject to SEP royalty demands. Likewise, modern smartphones implement not only cellular standards such as LTE, but also additional royalty-bearing standards such as the above-mentioned 802.11 (Wi-Fi), as well as AAC, MP3, and H.264. Based only on publically available information on royalty demands and court awards, *Armstrong, Mueller and Syrett* calculate a cumulative royalty burden for smartphones at approximately US\$ 120 for a US\$ 400 device, which is almost equal to the cost of the device’s hardware components.⁶⁹

The fragmentation of SEP portfolios is aggravating the issue. Particularly troublesome is the trend by SEP-holders to engage in “privateering” – spinning off parts

⁶⁴ *Ericsson, Inc. v. D-Link Systems, Inc.*, Case No. 2013-1625 at 39-40 (*Fed. Cir. Dec. 4, 2014*), at 5.

⁶⁵ Br. of Amici Curiae Broadcom Corp., et al., In re *Ericsson, Inc. v. D-Link Systems, Inc.* Court of Appeals for the Federal Circuit, Case No. 13-1625, at 2.

⁶⁶ Armstrong, Mueller, Syrett, *The Smartphone Royalty Stack: Surveying Royalty Demands for the Components Within Modern Smartphones*, working paper, February 12, 2014 (available at <http://www.wilmerhale.com/uploadedFiles/Shared_Content/Editorial/Publications/Documents/The-Smartphone-Royalty-Stack-Armstrong-Mueller-Syrett.pdf> (last visited 13 Feb. 2015), pp. 13-14.

⁶⁷ *Id.*

⁶⁸ Biddle, White, Woods, *How Many Standards in a Laptop? (And Other Empirical Questions)*, 10 September 2010, available at <http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1619440> (last visited 13 Feb. 2015).

⁶⁹ *Armstrong, Mueller, Syrett*, cit., p. 2.

of their portfolios to “non-practicing entities” (NPEs) that can assert those patents without having to fear counterclaims. The original patent holder often retains a financial interest in the patents being asserted or otherwise licensed by the privateering partner. Consideration of royalty stacking as part of the FRAND analysis helps to protect against abusive disaggregation tactics and strategies.

IX. SEPS MUST NOT BE USED TO FORCE CROSS-LICENSING OF NON-ESSENTIAL, DIFFERENTIATING PATENTS

As the Commission has recognized, using the market power conferred by a SEP to obtain access to implementer’s differentiating technology can be abusive.⁷⁰ While voluntary cross-licensing of non-SEPs is certainly permissible, leveraging the hold-up value of a SEP to force such licenses is a form of abuse. Conversely, SEP-holders may abuse their position by making a license on FRAND-terms conditional upon the implementer also taking a license to their non-SEPs.

Coerced licenses to non-SEPs can undermine product differentiation and disincentivize investments in differentiating innovations. Unlike SEPs where the patent owner has made a voluntarily commitment to license on FRAND terms, there is no legal obligation to provide licenses for differentiating inventions. A patent owner, if it so chooses, may retain its non-essential technologies for its own use and exploitation in competitive markets.

Apple has invested in and developed a large number of differentiating technologies, and owns patents addressing various non-essential features. These innovative features separate Apple’s products from Apple’s competitors. Likewise, Apple’s competitors may own, implement and patent differentiating features of their own. This competition to invent and sell unique and desirable features promotes consumer choice and encourages companies like Apple to continue to invest in development of unique technologies and consumer experiences. Unlike FRAND-encumbered standards essential patents, which are necessary for compatibility, competitors have no obligation or need to share their non-essential technologies. The U.S. Department of Justice recently clarified that SSOs may legitimately prohibit SEP holders from demanding compulsory cross-licenses, and recognized that “*a compulsory cross-license can, in some cases, decrease incentives to innovate*”.⁷¹

The leverage of a SEP – whether through assertive licensing or litigation – should not alter this traditional right to retain differentiating patents for one’s own exclusive use, and likewise should not be used to force a licensee to pay for non-essential technologies

⁷⁰ Commission Decision of 13 February 2012 in Case COMP/M.6381 – *Google/ Motorola Mobility*, (“Google/Motorola Mobility”) recital 116 and Commission Decision of 29 April 2014 in Case AT.39939 – *Samsung - Enforcement Of UMTS Standard Essential Patents* (“Case AT.39939 – *Samsung*”), recitals 89 and 102. In both cases the Commission identified the risk that the implementer be forced into cross-licensing valuable differentiating IP as one of the principal competitive harms that can result from injunctions for FRAND-encumbered SEPs.

⁷¹ IEEE Business Review Letter, at 15.

that it does not want or need. Efforts by SEP holders to use SEPs as a tool to force access to competitors' differentiating technologies – to, in effect, obtain the benefit of competitors' private innovations – would discourage development of such innovations.

X. SEP LICENSORS HAVE AN OBLIGATION TO DEMONSTRATE THAT THEY ARE WILLING LICENSORS

The Consultation Questionnaire's eighth "key issue" addresses the circumstances under which a standards implementer might be considered an "unwilling licensee." Yet one cannot assess the "willingness" of the licensee unless one first focuses on the willingness of the licensor.

It takes two to negotiate a license. If a would-be licensor is not a "willing licensor", it is difficult to imagine how any implementer can be legitimately labeled an "unwilling licensee." In order for an implementer to make an informed assessment as to whether the terms of an offer are FRAND, and/or to make a reasonable (counter)offer for a FRAND license, implementers need to be provided with certain information. Some characteristics of a "willing licensor" might be:

Clear description of the SEPs that the SEP-holder proposes to license. A SEP-holder demanding a given royalty rate must at a minimum provide a detailed description of its portfolio, including a clear explanation as to why any patents sought to be licensed are in fact standards-essential, supported by claim charts.⁷² A standards implementer can be faced with a substantial number of declared SEPs in a fast-evolving technical and competitive environment and cannot be expected to verify essentiality and validity of each patented technology without some assistance and information as to how the patent holder contends they apply to the standard.⁷³

Reasoned offer on FRAND terms. The SEP-holder must make the implementer a written offer for a license on FRAND terms. As Advocate General Wathelet points out, such a requirement is not disproportionate, as the SEP-holder voluntarily declares the patent to be essential and freely enters into a FRAND commitment with respect to that patent. Such an offer must contain all the terms normally included in a license in the sector in question, including "*the precise amount of the royalty and the way in which that amount is calculated*".⁷⁴ The explanation of the method of calculation should address the

⁷² Case AT.39939 – *Samsung*, recitals 87 and 100 (commitments amended to clarify that Samsung should produce a "proud list" of mobile patents, including claim charts).

⁷³ AG Opinion, paragraphs 81, 82 and 84, and footnote 53 ("Standard implementers in the telecommunications industry cannot be expected (nor is it customary in that sector) to assess every patent that has been declared essential, enter into negotiations to obtain a licence to use that patent and issue a legally binding declaration in respect of each essential patent to every owner of such a patent before starting to use the standard in question. The administrative and financial burden involved would be so onerous and the investment in time so considerable as to make it impossible in practice to use the standard").

⁷⁴ AG Opinion, paragraph 85. The European Commission has also recognized the public interest in transparency of the method used to calculate FRAND rates by requiring in *Samsung* that the

royalty base used, and the rate applied, taking into account the principles set out below in Section VIII. The license offered should also be of reasonable duration.⁷⁵

Demonstrably non-discriminatory nature of offer. Advocate General Wathelet also emphasizes the requirement that the SEP-holder’s proffered terms shall be non-discriminatory: “The SEP-holder alone has the information necessary for purposes of complying with that obligation.”⁷⁶ The SEP-holder’s existing licenses represent one benchmark in negotiations, with the obvious caveat that any unfair and unreasonable terms contained in such licenses (reflecting the SEP-holder’s hold-up power) cannot justify a perpetuation of such terms (“no equality in illegality”). Some SEP-holders claim that they are offering the same terms to everyone, and in fact justify their demands by claiming that other licensees have willingly agreed to those same terms. At the same time, however, these SEP-holders do not provide any particulars about their existing licenses and refuse to allow the implementer to verify their claims in any way, citing non-disclosure agreements (NDAs) with their existing licensees (which in many cases the patent holder drafted and required of the prior licensee). A truly “willing licensor” is ready to offer non-discriminatory terms to all comers and does not need to engage in such tactics.⁷⁷

Cash-only option. A “willing licensor” should offer a license on a cash-only basis. A cash-only option allows comparison of terms extended to different licensees, and can help the implementer assess whether the SEP-holder’s terms are in fact FRAND. Such approaches have been endorsed by the US Department of Justice⁷⁸ as well as the *Patent and Standards* study prepared for DG Enterprise.⁷⁹

No Mandatory Bundling. A “willing licensor” should be willing to license patents that the implementer agrees to be valid and essential, even if the parties cannot resolve disputes as to other asserted SEPs owned by the licensor. A SEP-holder’s refusal to do so may amount to tying in violation of Article 102 TFEU and similar prohibitions of abusive conduct in jurisdictions around the world: the SEP-holder would be leveraging

method not be redacted in the publication of any determination by an arbitration tribunal. See Case AT.39939 – *Samsung*, recital 103.

⁷⁵ Case AT.39939 – *Samsung*, recital 100 (five years or more).

⁷⁶ AG Opinion, paragraph 86.

⁷⁷ To be sure, there may be legitimate reasons to protect the confidentiality of certain terms contained in SEP-licenses. However, that does not justify a blanket refusal by the licensor to disclose the remaining terms of its existing licenses to the implementer in the course of the negotiations. Such disclosure could be subject to an NDA with the implementer (preventing the implementer from using such information outside of its licensing negotiations with the SEP-holder), or in particularly sensitive circumstances might be made to an independent auditor who could verify that the terms offered by the licensor are in fact non-discriminatory.

⁷⁸ See U.S. Department of Justice (DOJ), *Antitrust Policy in the Information Age: Protecting Innovation and Competition*, Talk delivered by J. F. Wayland, Acting Assistant Attorney General Antitrust Division, at the Fordham Competition Law Institute, September 21, 2012; Renata Hesse, U.S. Department of Justice, *Six “Small” Proposals for SSOs Before Lunch*, Remarks as Prepared for the ITU-T Patent Roundtable on October 10, 2012 Geneva, 2012.

⁷⁹ *Patents and Standards*, pp. 137-138.

the dominant position it holds with respect to a few valid and essential SEPs in order to force the implementer to take a license to other SEPs associated with the same standard that it does neither want nor believe it needs because the assets are unenforceable, invalid, not essential, or not infringed by the implementer (for example, because the implementer benefits from pass-through rights by a component supplier).⁸⁰ This view is also implicit in the Advocate General's Opinion in *Huawei v. ZTE*, which consistently addresses licensing of particular SEPs, and does not support or require mandatory bundling.⁸¹ To be sure, many implementers may prefer to take a license to an entire SEP-portfolio (if the terms offered are FRAND) because of the legal certainty that such a license provides. However, this should remain the parties' option. If the implementer is prepared to run the risk of the SEP-holder asserting some of the unlicensed patents, it should have the right to do so. An "all or nothing" demand for a portfolio license by the SEP-holder is not one that characterizes a "willing licensor". The U.S. Department of Justice also acknowledged that SSOs may legitimately prohibit such forms of patent tying.⁸²

No Mandatory Cross-Licensing of Non-SEPs. Last, as discussed above, a "willing licensor" should be willing to grant licenses without requiring a cross license to non-essential, differentiating technology held by the implementer.

These characteristics of "willing licensors," although not exhaustive, have the potential to help mitigate potential SEP abuses, and assist voluntary licensing negotiations.

XI. INJUNCTIONS FOR FRAND-ENCUMBERED SEPS ARE NOT APPROPRIATE EXCEPT IN VERY LIMITED CIRCUMSTANCES

A general consensus has developed, both in the courts and the competition authorities, that seeking injunctions on FRAND-encumbered SEPs constitutes at least *prima facie* abusive conduct absent an objective justification. As the U.S. Department of Justice recently stated, "[t]he threat of exclusion from a market is a powerful weapon that can enable a patent owner to hold up implementers of a standard. Limiting this threat reduces the possibility that a patent holder will take advantage of the inclusion of its patent in a standard to engage in patent hold up, and provides comfort to implementers in

⁸⁰ Case AT.39985 – *Motorola*, recital 386 ("In the *Der Grüne Punkt – Duales System Deutschland GmbH* ("DSD") case, the Union Courts held that it was abusive for a dominant undertaking to require a royalty payment for the use of a trade mark when the licensee was not actually using the service denoted by the trade mark. In the same vein, in this case, Motorola's seeking of royalty payments for the use by the iPhone 4S of SEPs that Apple may not be infringing, amounts to Motorola requesting the payment of potentially undue royalties, without Apple being able to challenge such infringement").

⁸¹ AG Opinion, paragraphs 81 ("the teaching of a patent"), 82 ("agreement to license an SEP on FRAND terms", "use of the teaching protected by that patent"), 84 ("the SEP concerned"), 86 ("immediately upon obtaining 1st patent").

⁸² IEEE Business Review Letter, at 16.

developing their products.”⁸³ Indeed, as confirmed by the recent decisions of the European Commission in the *Motorola*⁸⁴ and *Samsung*⁸⁵ cases, and by the Opinion of Advocate General Wathelet in *Huawei Technologies*,⁸⁶ seeking injunctions based on FRAND-encumbered SEPs is an abuse of a dominant position under Article 102 TFEU, unless the SEP-holder can demonstrate that the implementer is an “unwilling” licensee.

Injunctions are fundamentally incompatible with the FRAND-promise, barring exceptional circumstances in which a damages award is not a sufficient remedy even where the patent merits are proven. This might include instances in which the implementer is suffering from severe financial distress or residing outside of a jurisdiction in which a damages award can be enforced.⁸⁷ There is no need, and no legal basis, for an objective justification of prima facie abusive conduct based on a notion as fluid as the subjective “willingness” of the implementer to pay a FRAND rate. The definition of “unwilling licensee” cannot include parties that have simply challenged a SEP holder’s contentions on the merits, a dispute that can be resolved in a court (or a mutually agreed arbitral tribunal).

Issue 8 of the Commission’s Questionnaire nevertheless raises the question of whether injunctions are needed for “holders of standard essential patents [to] effectively protect themselves against implementers who refuse to pay royalties or unreasonably delay such payment”, and sub-question 8.1 asks: “[w]hat needs to be done to ensure that holders of standard essential patents have effective means of obtaining appropriate remuneration for their patents and to defend themselves against implementers who are unwilling to pay royalties or who delay payment of such royalties?”

Effective means already exist: the SEP-holder can bring a legal action for compensation against the implementer, or in rare circumstances where compensation is not obtainable via such processes (*e.g.*, if the licensee is bankrupt or has insufficient assets in the relevant jurisdiction), injunctions may be permissible. As the US Department of Justice recently noted, a restriction on the use of injunctions “does not affect the rights of patent holders [...] to seek patent damages, in the form of RAND compensation, for infringement of their patents when the parties cannot agree to a negotiated license.” In addition “where potential licensees appear recalcitrant about

⁸³ IEEE Business Review Letter, at 9. In particular, the Department of Justice addressed a change in the IEEE’s policy according to which the holder of a FRAND encumbered SEP “shall neither seek nor seek to enforce a Prohibitive Order [...] unless the implementer fails to participate in, or to comply with the outcome of, an adjudication, including an affirming first-level appellate review [...] by one or more courts that have the authority to determine Reasonable Rates and other reasonable terms and conditions; adjudicate patent validity, enforceability, essentiality, and infringement; award monetary damages; and resolve any defenses and counterclaims”.

⁸⁴ Case AT.39985 – *Motorola*, recitals 280-281 and 306-307. At recital 432, the Decision also records that in the administrative procedure, Motorola itself accepted that SEP-based injunctions against willing licensees are incompatible with Article 102 TFEU.

⁸⁵ Case AT.39939 – *Samsung*.

⁸⁶ AG Opinion, paragraphs 83-96.

⁸⁷ Case AT.39985 – *Motorola*, recital 427.

taking a license, courts and other third-party decision makers may seek to ensure payment by requiring alleged infringers to post a bond or make escrow payments.”⁸⁸

In particular, the EU Enforcement Directive requires Member States to provide for effective mechanisms to obtain compensation for patent infringements.⁸⁹ Articles 13 and 14 of the Enforcement Directive require Member States to ensure that the competent judicial authorities order an infringer to pay the rights holder damages “appropriate to the actual prejudice” suffered by the right holder, including appropriate interest. Art. 14 of the Enforcement Directive also provides for the “losing party pays principle” to ensure that the right-holder does not have to bear the legal costs of seeking redress before Member State courts.⁹⁰ Indeed, in *Motorola*, the Commission rejected Motorola’s arguments that actions for compensation before national courts are too “slow and expensive” to fairly protect a patent holder’s commercial interests.⁹¹

Focusing on the availability of compensation, rather than injunctions, supports a fair and predictable FRAND process when parties disagree on the compensation due. When there is a dispute, it is important to obtain the *correct* result, not just some quick result, and the concerns raised to purportedly justify a deviation from established adjudicatory approaches do not withstand scrutiny.

As Judge Posner pointed out in *Apple v. Motorola*,⁹² the absence of injunctions does not mean that the standards implementer would have no incentive to settle. Potential licensees have incentives to resolve disputes regarding FRAND licenses out of court even if they face “only” damage actions and not injunctions. For instance, the licensee might end up paying more if a court sets the FRAND rate than if it negotiates a rate with the SEP owner, particularly if the licensee will also be responsible for costs, fees and interest incurred by the SEP owner as a result of any delay.

XII. SEP SELF-DECLARATION, OVER-DECLARATION AND THE PROBLEM OF ACCURATELY IDENTIFYING SEPS

The Commission’s consultation Questionnaire’s third “key issue” addresses patent transparency – *i.e.*, how can we better identify and provide information regarding essential patents.⁹³ The problem of identifying truly essential, valid, enforceable and

⁸⁸ *Id.*, at 10-11.

⁸⁹ Directive 2004/48/EC of the European Parliament and of the Council of 29 April 2004 on the enforcement of intellectual property rights, OJ 2004, L 157, p. 16, Article 3.

⁹⁰ While “losing-party-pays” is not the rule in the US and some other jurisdictions, courts typically do have discretion to impose sanctions in the case of bad faith litigation. In the United States, the Supreme Court recently increased the use of such awards to deter bad faith patent litigation. *See Octane Fitness, LLC v. ICON Health & Fitness, Inc.*, 134 S. Ct. 1749, 1756 (2014).

⁹¹ Case AT.39985 – *Motorola*, recital 519.

⁹² *Apple Inc. v. Motorola, Inc.*, 869 F. Supp. 2d 901, 913 (N.D. Ill. 2012) (Posner, J.), at 20-21.

⁹³ Questionnaire, Item 3 (“Patent transparency seems particularly important to prevent achieve efficient licensing and to prevent abusive behaviour. How can patent transparency in standardization be maintained/increased? What specific changes to the patent declaration systems

infringed SEPs has likely been one of the key contributors to SEP disputes and related litigation. Steps to improve transparency – at least as to patents more likely than not to actually be essential – have the potential to bring more consistency and efficiency to FRAND licensing efforts and the standardization ecosystem.

The current SEP licensing regime suffers from problems associated with declaration. On the one hand, there is *under*-declaration, where a standards participant fails to timely disclose a patent that it knows is, or is likely to be, essential, and then later asserts that patent in licensing efforts or litigation. This creates the potential for a set-up and raises issues of reliance and estoppel based on the failure to disclose. Unfortunately, *self*-declaration commonly breeds *over*-declaration. Recent studies suggest that as many as 90% of declared-essential patents are not actually SEPs.

A. The Unilateral Declaration Process Overstates The Volume of SEPs

The patent declaration process for SSOs is generally *unilateral*. That is, the patent owner self-declares that it believes a patent or patent application that it owns is essential to a standard.. Indeed, “[m]any SSOs explicitly disclaim any effort to interpret the patent or to determine whether or not a patent reads on a proposed standard.”⁹⁴ That is because “SSOs themselves are generally not comprised of patent lawyers and rendering opinions would increase the SSO’s potential liability exposure should the SSO get it wrong.”⁹⁵ The self-declaration process has led to an enormous proliferation of declared-essential patents (“Declared Patents”).⁹⁶

Strong empirical evidence indicates that most Declared Patents are not actual SEPs; that is, upon deeper examination, a majority of Declared Patents are found to be either not essential, invalid or otherwise unenforceable. According to one recent study of 380 Declared Patents that were challenged in court since 2005, only 16% were ultimately found valid and infringed.⁹⁷ Other studies have generated similar results, each concluding that between about 70-90% of the Declared Patents studied are not actual SEPs.⁹⁸

of standard setting organizations would improve transparency regarding standard essential patents at a reasonable cost?”).

⁹⁴ Teece, Sherry, “Standards Setting and Antitrust”, 87 *Minn. L. Rev.* 1913, 1949 (2003).

⁹⁵ *Id.*

⁹⁶ See, e.g., IPlytics GmbH, Standard Essential Patent Database 1 (2014), available at <<http://tinyurl.com/IPlyticsDatabase>> (last visited 13 Feb. 2015) (containing over 300,000 claimed SEPs).

⁹⁷ RPX Corporation, *Standard Essential Patents: How Do They Fare?* at 9, available at <<http://www.rpxcorp.com/wp-content/uploads/2014/01/Standard-Essential-Patents-How-Do-They-Fare.pdf>> (last visited 13 Feb. 2015).

⁹⁸ Goodman, Myers, “3G Cellular Standards and Patents”, *Fairfield Resources Int’l* (2003), available at <<http://tinyurl.com/3GCellStandards>> (last visited 13 Feb. 2015), p. 5 (finding that about 80% of Declared Essential patent families for 3G standards are not SEPs); Jurata, Smith, “Turning the Page: The Next Chapter of Disputes Involving Standard-Essential Patents”, *CPI Antitrust*

A recent study by *Kang* and *Bekkers* of the W-CDMA and LTE standardization process shows that SSO participants filed a disproportionate number of patent applications immediately before or during meetings of technical committees, and that such “just-in-time inventions” translate into poor patent quality.⁹⁹

Over-declaration can create a false perception of the patent landscape for a given standard, and may result in certain patent owners appearing to have more SEPs than they actually own. Such patent owners, in turn, may demand a disproportionate share of royalties associated with the standard, all the while insulating their Declared Patents from robust review.¹⁰⁰

B. Establishing A “Gate-Keeper” Function May Help Address Some of the Problems Related to SEP Over-Declaration

One step worthy of consideration by the European Commission would be the development of a “gatekeeper” function, whereby a trusted, impartial and independent third party who is an expert in the relevant standard and associated technology could be tasked with vetting the alleged essentiality of any patent that a patentee may wish to license as a SEP.

The vetting process would need to be transparent, open to third-party comment and contribution, but must *not* result in any burden shifting or presumptive implications in the event that the parties later resort to litigation or other dispute resolution mechanism. The process must be structured so that the independent third party remains impartial, *e.g.*, there must not be any incentives for the independent third party to determine that a declared SEP is essential.

Patent pools offer a comparable example. Some patent pools have independent evaluators who are responsible for examining candidate patents for potential inclusion in the pool. These gatekeepers do not attempt to opine on the merits of validity or whether particular products are infringing. Rather, they focus their assessment on whether a particular candidate patent is likely to be essential to the subject standard.

Chronicle, Oct. 2013, p. 5 (“only 1 of every 8 SEPs tested in court has, in fact, been valid and technically essential to practice the standard.”).

⁹⁹ *Kang, Bekkers*, “Just-in-Time Inventions and the Development of Standards”, *Eindhoven Ctr. for Innovation Studies, Working Paper No. 13.01*, 2013), p. 6, available at <<http://tinyurl.com/KangBekkers>> (last visited 13 Feb. 2015).

¹⁰⁰ For example, a patent holder may assert a small handful of “strong” patents in licensing negotiations or litigation, but endeavor to base its licensing rate on the alleged large quantity of SEPs in its portfolio. Such approaches can be highly misleading, as portfolio quality can vary significantly among patent holders, and a patent holder should not be entitled to higher RAND compensation simply because it owns a large number of “junk” patents that would never survive in-depth review. *See, e.g.* Parchomovsky, Wagner, “Patent Portfolios”, 154 *U. Pa. L. Rev.* 1, 69-70 (2005) (discussing “high-volume, low-quality” patent portfolio strategy).

XIII. PATENT POOLS CAN BE AN EFFECTIVE MEANS OF FRAND LICENSING, PROVIDED VARIOUS SAFEGUARDS ARE RETAINED

The Consultation Questionnaire's fifth "key issue" addresses various items relating to patent pools.¹⁰¹ Apple has significant experience with patent pools, and has been an active participant in patent pools, both as a licensor and as a licensee. For example we have contributed and licensed our patents via MPEGLA pools, including AVC, HEVC and IEEE 1394. Patent pools with transparent valuation models have the potential to promote efficient FRAND licensing in many circumstances.

A. Patent Pools Can Promote Effective FRAND Licensing

Patent pooling arrangements involve multiple patent owners joining together to license their essential patents. A patent pool "may provide competitive benefits by integrating complementary technologies, reducing transaction costs, clearing blocking positions, and avoiding costly infringement litigation."¹⁰² Such pooling can be particularly effective where the pool attracts broad participation by the relevant SEP holders. Conversely, arrangements that involve only a small number of companies or a small percentage of the relevant SEPs may sometimes behave and function in ways that are similar to abusive patent assertion entities.

Patent pools can serve as a "one stop shop" where licensees can obtain a FRAND license to the patents needed to implement the relevant standard. Although no patent pool has achieved the participation of *all* relevant SEP owners, some pools are capable of attracting a critical mass of SEP holders, such that they can offer licenses to a meaningful number of applicable SEPs. Patent pools generally must be non-discriminatory, offering common rates to all potential licensees and including appropriate governing documents and structures in conformance with competition law requirements.¹⁰³

B. Considerations In Evaluating Pooling Arrangements And Potential Abuses

Patent pools can promote FRAND licensing provided they clearly and carefully incorporate FRAND compliance into their licensing efforts. First, to ensure FRAND-compliance, and as discussed above in Section VIII, patent pools should carefully and expressly calculate their rates based on the value of the technology contributed by the subject patents, and not include any "lock in" amounts or other value attributable to standardization itself. Second, as discussed in Section VIII, a patent pool's methodology must also take into account the aggregate royalties that would apply if other SEP holders made the same royalty demands of the implementer of the standard. Where a patent pool

¹⁰¹ Questionnaire, Item 5 ("Where and how can patent pools play a positive role in ensuring transparency and an efficient licensing of patents on technologies comprised in standards? What can public authorities and standard setting organizations do to facilitate this role?"). Patent pools are defined by the Questionnaire as "an agreement by which two or more holders of patents agree to licence these patents under a joint licence to each other and/or third parties."

¹⁰² U.S. Department of Justice-Federal Trade Commission, *Antitrust Guidelines for the Licensing of Intellectual Property* ("IP Guidelines"), paragraph 5.5.

¹⁰³ *Id.*

does not represent the full set of applicable SEPs, but nonetheless sets rates without regard to the hundreds or thousands of essential patents that are not included in the pool, FRAND licensing is undermined. And third, as discussed above in Section VIII, to avoid unjust enrichment it is crucial that the patent pool's rates focus on the actual functionality that the pool's patents purport to have invented, and not on uses or combinations that the pool's patents do not cover.

Patent pools also should undertake periodic reviews of their rates to ensure on-going FRAND-compliance. For example, a formerly robust patent pool may find that over time it eventually represents a smaller percentage of the overall SEPs applicable to the standard.¹⁰⁴ This can occur as other patent owners enter the market and start to actively license their portfolios, as technology and implementations evolve, and as patents expire. Instead of simply requiring the same historical rate for a license renewal (or higher rates), pool managers should consciously and transparently examine whether the existing rate is still FRAND and offer a new rate if necessary, in light of market conditions at time of renewal.

In sum, while patent pooling can sometimes offer benefits and efficiencies, great care must be taken to ensure that SEP pooling includes safeguards against abusive licensing incompatible with the FRAND commitment.

XIV. CONCLUSION

Rational SEP policies can fairly balance a patent owner's ability to obtain reasonable compensation for its valid, enforceable and infringed SEPs, while protecting against abusive licensing or litigation assertions that seek compensation beyond the value of the patented technology. Apple supports the Commission's efforts to study this important issue, and appreciates this opportunity to offer its views on how to best achieve this balance.

¹⁰⁴ One example of a pool that has encountered these issues is the MPEG-2 Video Codec pool (administered by MPEG LA). The pool was originally offering a rate that was not accepted by a certain segment of the relevant market. After some litigation, the pool reduced its rate and offered the same rate to existing and future licensees. Years later, almost all the pool patents have expired, but inexplicably the pool rate, and the licensees' obligation to pay, remain unchanged.