

Shri Arvind Kumar
Broadband & Policy Analysis
Telecom Regulatory Authority of India
New Delhi-110002

**IP Europe Comments on Consultation Paper
on
Promoting Local Telecom Equipment Manufacturing**

Submitted by Email to: arvind@traai.gov.in; bharatgupta.traai@gmail.com

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Dear Madam, Dear Sir,

IP Europe appreciates the opportunity to comment on the Telecom Regulatory Authority of India's (TRAI) Consultation Paper on Promoting Local Telecom Equipment Manufacturing ("Consultation Paper")¹. IP Europe represents the interests of R&D intensive European companies and research organizations. Our membership includes global enterprises, SMEs, and nonprofit organizations that share the common goals of maintaining strong patent protection for innovators and protecting fair compensation for patent owners who contribute technology to standards. Our members both contribute technology to standards and use standardized technology to create new products and services.²

IP Europe is a voice for its diverse members on public policy matters that involve intellectual property rights. We regularly study and comment on global policies that impact standard development activities and the licensing of standard-essential patents particularly in the telecommunications sectors where consensus standards are the engine of huge investment, innovation and growth. Our comments here respond primarily to those aspects of the Consultation Paper that consider the relationship between intellectual property rights—including policies related to fair, reasonable and nondiscriminatory (FRAND) licensing for standard essential patents—and local telecommunications equipment manufacturing.

Strong Intellectual Property Rights Will Encourage Local Manufacturing

In the Consultation Paper, TRAI raises a number of concerns regarding IPRs and FRAND licensing that are based on flawed assumptions about how FRAND licensing operates today and the likely impact of such licensing on domestic manufacturing. With regard to domestic innovation, TRAI indicates that a low level of innovation and patenting by domestic manufacturers

¹ Available at <http://www.traai.gov.in/notifications/press-release/traai-releases-consultation-paper-promoting-local-telecom-equipment>. We are also grateful for the extension of the comment period to 13 November 2017, see <http://www.traai.gov.in/notifications/press-release/extension-date-receive-comments-trais-consultation-paper-consultation>

² See more on the IP Europe web site at <https://www.iptalks.eu/about-us>.

puts domestic firms at a cost disadvantage due to relatively higher royalty costs.³ This concern is misplaced. Strong foreign innovation and licensing are a benefit to the domestic market. Foreign innovators have made massive investments to develop and acquire technology used by Indian firms, either through research and development programs, or through the expensive acquisition of IPRs from other companies. Indian manufacturers receive the benefits of these investments without incurring the same substantial fixed costs. Successful infrastructure and device manufacturers such as Huawei and Samsung have succeeded in the global market through implementation of existing standards to which they did not initially contribute. That same path is available to India's domestic manufacturers. Moreover, as recognized by Indian courts, Indian telecom manufacturers, including handset manufacturers that are primarily assemblers are engaged in prolonged infringement and delaying tactics that create ripples in global licensing programs and chill the innovation cycle. In order to encourage Indian equipment manufacturers to move up in the value chain, it is important that incentive models are built to reward those that invest in R&D and lawfully take licenses to technology in line with India's WTO obligations. This will enable them to develop a strong patent footprint which they can use for cross-licensing. While FRAND licenses are made available, many domestic manufacturers prefer free-riding on the investments of their foreign competitors, paying little if any royalties for the technology they profitably use in their products. We encourage TRAI to recognize that a local innovation deficit is not the source of any domestic manufacturing disadvantage and that the path to more domestic innovation is a stronger, not weaker, system for the protection for IPRs.⁴

TRAI Should Support A Flexible Consensus-Based Approach to FRAND Licensing

TRAI also makes a number of faulty observations and conclusions regarding standard essential patents and FRAND licensing that if left uncorrected may result in counterproductive policies. In describing Standard Essential patents, TRAI notes that standard essential patent owners are bound to license on FRAND terms.⁵ This statement shows a critical misunderstanding of the voluntary nature of a FRAND licensing assurance. FRAND is a *voluntary* contractual commitment that patent owners may *elect* to make if they conclude that it is in their interest to agree to restrict some of aspect of their normal patent rights in exchange for having their technology included in the standard. The FRAND obligation does not attach automatically. For example, under the European Telecommunications Standards Institute ("ETSI") IPR policy, firms are required to make reasonable efforts, during the development of a standard or technical specification, to inform ETSI of essential IPRs "in a timely fashion."⁶ When ETSI is informed of essential IPR relating to a particular standard or technical specification, the Director-General is required to request that the

³ Consultation Paper at 10-11.

⁴ Competition authorities across the globe recognize that protection for IPRs foster innovation, see, e.g., Acting FTC Maureen Ohlhausen, STRONG PATENT RIGHTS, STRONG ECONOMY (October 13, 2017) available at https://www.ftc.gov/system/files/documents/public_statements/1264483/ohlhausen_-_hillsdale_speech_10-13-17.pdf; Assistant Attorney General for Antitrust Makan Delrahim, Remarks at New York University School of Law (October 27, 2017) ("We need to be sure that antitrust enforcement does not impede the incentives for innovation that intellectual property laws provide" available at <https://www.justice.gov/opa/speech/assistant-attorney-general-makan-delrahim-delivers-remarks-new-york-university-school-law>.

⁵ "Therefore, once a patent holder acquires the status of SEP holder, it is bound by the obligation to grant the license on Fair, Reasonable and Non-Discriminatory... terms." Consultation Paper at 12.

⁶ Annex 6: Intellectual Property Rights Policy, Version 37 (April 2017) at 41, § 4.1, <http://www.etsi.org/images/files/IPR/etsi-ipr-policy.pdf>.

owner provide, within three months, a written assurance that it is prepared to grant a license on FRAND terms for the manufacture and sale of equipment, where equipment is defined as a system or device “fully conforming to a standard.”⁷ The ETSI declaration forms permit the IPR holder to agree to license essential IPRs for all standards or technical specifications, to only specific standards, or, importantly, not at all.⁸

The voluntary nature of the FRAND commitment is consistent with the larger consensus-based standard development system that has supported the success of 2G, 3G and 4G wireless telecommunications standards, and has provided the incentives to bring 5G to market even faster than expected. The system balances a complex set of incentives that allow standard development organizations to create state-of-the-art standards by encouraging innovators to contribute valuable technology while providing access and reasonable predictability to firms investing to create products that implement the standard. The system ensures that the implementation of the standard cannot be blocked while affording those who contribute technology with a return on investment sufficient to incentivize continued investment in next-generation specifications.

The importance of a good faith process and fair balance to FRAND licensing negotiations has been recognized by the Court of Justice of the European Union (CJEU) in its landmark Huawei/ZTE ruling.⁹ In its ruling, the CJEU clarified that a FRAND commitment is a two-way street that requires both the licensor and the technology user to act in good faith to conclude a license agreement. The Court provided clear guidelines to determine, on a case-by-case basis, whether the alleged infringer has shown it is willing to agree to a FRAND license (and thus avoid an injunction) and the circumstances in which a patent holder may seek an injunction against an unwilling licensee.

There is no evidence to suggest that the current system is broken or that, as TRAI suggests, there is “a need to devise a formula/mechanism to determine the basis on which standard essential patents can be licensed.”¹⁰ TRAI suggests, in particular, the need to evaluate whether a FRAND royalty should be based on the value of “the smallest saleable patent practicing component (SSPPC) or the net price of the downstream product, or some other criterion.”

We urge TRAI to recognize that there is no one size fits all criteria for selecting the appropriate licensing level.¹¹ Consistent with the voluntary consensus-based nature of FRAND licensing, the choice of the appropriate licensing level should be left to commercial negotiations and must be consistent with the FRAND assurance the patent owner willingly provided. For ETSI and other telecom standards, a FRAND assurance applies to the level at which the standard is fully

⁷ A FRAND license must extend to: “MANUFACTURE, including the right to make or have made customized components and sub-systems to the licensee’s own design for use in MANUFACTURE; Sell, lease of otherwise dispose of EQUIPMENT so MANUFACTURED; repair, use of operate EQUIPMENT; and use METHODS *Id.* at 40, Sect. 6.1 . EQUIPMENT is defined as “any system, or device fully conforming to a STANDARD” and MANUFACTURE is defined as the production of EQUIPMENT. *Id.* at 40-41, Sects. 15(4), 15(8).

⁸ *Id.* at 42-43, IPR Licensing Declaration forms, IPR Information Statement and Licensing Declaration.

⁹ Case C-170/13 Huawei Technologies Co. LTD v. ZTE Deutschland GmbH.

¹⁰ Consultation Paper at 13.

¹¹ See also Deborah Platt Majoras, former Chairman, Fed. Trade Comm’n, THE FEDERAL TRADE COMMISSION IN THE ONLINE WORLD, Address at the Progress and Freedom Foundation Aspen Summit 16-17 (Aug. 21, 2006) (“Broad regulatory mandates that employ a ‘one size fits all’ philosophy, without regard to specific facts, always have unintended consequences, some of which may be harmful and some of which may not be known until far in the future. * * * [M]arkets - particularly dynamic markets - are usually self-correcting.”), available at <http://www.ftc.gov/speeches/majoras/060821pffaspenfinal.pdf>.

implemented. Contrary to some assumptions, all the functionality in wireless telecom standards is not incorporated in the baseband chip. Many other components, including antennae, filters, power management chips and filters are all needed to full implement the standard. Requiring licensing at the component level would lead to fragmented licensing and greatly increase the cost and complexity of licensing for the sector. The standard is only fully implemented in the end-user device. Component level licensing would introduce additional complications such as preventing effective reciprocity, an important protection for licensors that depends critically on the licensing level.

Despite the complaints of a few powerful and vocal critics who may press initiatives to devalue standard essential patents, the experience of IP Europe members is that the vast majority of licensing negotiations conclude amicably and there is no evidence to suggest such drastic changes are warranted. The exponential sector growth that TRAI itself recognizes is the best evidence that the system is working well.¹²

Moreover, there are serious risks to standards development and innovation from changing the established system in ways that disadvantage firms that have invested to develop the technology for next-generation standards. Developments at the Institute of Electrical and Electronics Engineers (“IEEE”) provide an instructive case study. In 2015, IEEE, which is responsible for the development of the Wi-Fi standard, changed its patent policy in ways that disfavor technology contributors. The policy was developed in closed door sessions and adopted through a disputed process over the objections of technology contributors. Among other changes, the new policy makes it practically impossible for standard essential patents owners to seek an injunction against a putative licensee who unduly delays negotiations or otherwise acts in bad faith.¹³ It also limits the ability of a patent owner who provides a licensing assurance to select the level in the value chain at which to negotiate a license.¹⁴

The impact on IEEE standards is significant. Patent owners are far less likely to submit a positive letter of assurance (LOA) agreeing to provide access to their technology on reasonable and nondiscriminatory terms. From January 2016 through June 2017, 73% of LOAs submitted for the IEEE flagship 802.11 WiFi standard were negative, indicating that the patent owner would not commit to license essential IP on (F)RAND terms (see Annex A); forty-two percent of companies identified as technology leaders for IEEE standards were unwilling to provide a licensing assurance under the new policy.¹⁵ Since the new patent policy adoption in March 2015, the average net submission rate of licensing assurances declined by 90%, counting known negative and missing LOAs as negative numbers.¹⁶ That understandable unwillingness of patent owners to provide a licensing assurance under terms they never agreed to accept is delaying the approval of standards.¹⁷ Rather than generating a more certain licensing environment, the policy has led to

¹² Consultation Paper at 4-5.

¹³ IEEE-SA Standards Board Bylaws, December 2016, § 6, (available at https://standards.ieee.org/develop/policies/bylaws/sb_bylaws.pdf).

¹⁴ *Id.* at § 6.

¹⁵ Keith Mallinson, *Development of Innovative New Standards Jeopardised by IEEE Patent Policy*, September 2017 at 1, available at http://www.4ipcouncil.com/application/files/6015/0479/2147/Mallinson_IEEE_LOA_report.pdf.

¹⁶ Ron Katznelson, THE IEEE CONTROVERSIAL POLICY ON STANDARD ESSENTIAL PATENTS – THE EMPIRICAL RECORD SINCE ADOPTION (29 October 2016, updated September 2017) available at <http://bit.ly/IEEE-LOAs>.

¹⁷ Mallinson, *supra* note 15.

growing uncertainty as to whether access to future evolutions of IEEE Wi-Fi standards will be available on (F)RAND terms. In the longer run, we are likely to see fragmentation in standards as innovators seek alternative avenues for licensing their valuable technology. We urge TRAI to learn the lessons of IEEE. Similar policies imposed by governmental entities on the voluntary standard-setting process are likely to lead to similar outcomes.

TRAI also overstates concerns related to the availability of information on the patents and licenses required to manufacture a standards compliant product.¹⁸ Most major telecom standard-setting organizations provide information on declared essential patents. ETSI maintains a database which allows public access to information on IPRs that have been notified as essential or potentially essential to an ETSI standard.¹⁹ Similarly, IEEE provides online information regarding patents that have been declared as essential or potentially essential to its standards.²⁰ TRAI could facilitate transparency by educating domestic industry regarding the availability of these resources.

However, while IP Europe supports transparency regarding declared essential patents to clear the way for FRAND licensing negotiations, transparency must be balanced against the need for industry to protect sensitive commercial information. Nondisclosure agreements are a necessary tool in licensing negotiations as they are in other commercial transactions, and have been recognized as such by the Delhi High Court²¹. Excessive restrictions on the ability to conduct negotiations privately would introduce complications that would inevitably distort and likely stall the execution of FRAND licensing agreements.

In response to TRAI's question regarding an appropriate dispute resolution mechanism for the determination of the terms of a FRAND license, IP Europe supports alternative dispute resolution procedures as an option for parties acting in good faith and interested in an efficient mechanism to resolve a dispute. Both mediation and arbitration can be useful tools for resolving disputes if used by both parties in good faith and neutral experts familiar with the standardization ecosystem can be available to moderate. Alternative dispute resolution must not be used for purposes of delay.

¹⁸ Consultation Paper at 13.

¹⁹ <http://www.etsi.org/about/how-we-work/intellectual-property-rights-iprs>.

²⁰ <https://standards.ieee.org/about/sasb/patcom/patents.html>. The American National Standards Institute (ANSI) also provides an online database with access to information on declared essential patents for ANSI accredited standards. https://www.ansi.org/news_publications/news_story?menuid=7&articleid=9609e4c2-d6be-406c-b41a-fb29dc30e189.

²¹ See I.A. No. 6735/2014 in CS(OS) No. 1045/2014 Telefonaktiebolaget Ericsson LME v. Intex Technologies §138 (March 13, 2015) (executing a Non-Disclosure Agreement is a legitimate "sine qua non in every licensing deal, particularly in patent licensing negotiations").

CONCLUSION

IP Europe is grateful for the opportunity to submit these comments and hopes they explain why the proposed regulatory interventions referenced therein will, despite best intentions, likely undermine India's local telecom equipment manufacturing. We would welcome the opportunity to answer any questions or engage in further discussion through the contact information below.

Sincerely,



Francisco Mingorance
Executive Secretary & Counselor

IP Europe

32 Rue Ernest Solvay
B-1050 Brussels // Belgium
Cell: +32 476 977 153
Tel: +32 (0)2 513 55 09
E: fm@europa-insights.com
W: <http://www.iptalks.eu/about-us>
EU Transparency Register: 562316318576-78

THE PROVEN SUCCESS OF ‘ACCESS FOR ALL’

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EXECUTIVE SUMMARY

Effective ‘access for all’ is a pillar of the European Commission’s policy relating to standard essential patents (‘SEPs’)¹. It has proven to be the successful licensing paradigm that has brought us 2G, 3G and 4G and which is bringing 5G on an accelerating timeline. A single licence provides access for the standardized technology to all users of a device and to all component suppliers for the device. The fact that there is only a single licence provides obvious benefits in terms of simplicity and efficiency.

A proposed ‘license to all’² obligation for SEPs in the wireless telecoms sector has gained traction in some quarters. In assessing this proposal, the central question is whether a SEP holder has the discretion to decide at which level in the value chain to license its SEPs, or conversely whether the SEP holder must grant a licence to any party that requests one, regardless of where that party operates in the value chain. As demonstrated in this paper, a ‘license to all’ obligation is contrary to the Digital Single Market ambition as a whole.

¹ See [http://europa.eu/rapid/press-release MEMO-16-1963_en.htm](http://europa.eu/rapid/press-release_MEMO-16-1963_en.htm), where the Commission states that it ‘seeks to incentivise R&D investments by ensuring that patent holders are able to obtain a fair return on their investment, while promoting effective access to technologies and interoperable solutions at the same time’.

² Various terms are used to describe the concept (e.g. ‘license to all’, ‘refusal to license’, ‘licensing level discrimination’, ‘compulsory licensing’) but what it exactly means is unclear.

Instead of changing the proven ‘access for all’ regime, the Commission should reaffirm ‘access for all’ as the only sound basis for licensing SEPs. In addition, the following principles may help in providing additional clarity regarding the appropriate level in the value chain for SEP licensing in the IoT space:

- Licences should be granted at a level at which the standard is fully implemented – licences at upstream levels could result in licences to components which end up in non-standardised products or in products built to competing standards³.
- Licences should be granted at a level that is consistent with the FRAND commitment undertaken by the SEP holder.
- Licences should be granted at a level which provides simplicity and efficiency for licensing – simple and efficient licensing reduces costs for licensors, licensees and consumers.
- Licences should be structured in a way which allows quantifiable accounting for the use of SEPs, and therefore calculation of royalties for both licensor and licensee.
- Licences should be granted at a level which supports FRAND royalties – many levels of a value chain price their components based upon manufacturing costs and a slim margin. Such business models may not support FRAND royalties.
- Licences should be granted at a level which provides effective reciprocity for the licensor and the licensee – reciprocity is an important protection for FRAND licensors and the licensing level affects the effectiveness of reciprocity.

1. Introduction

At their core, the concepts of ‘license to all’, ‘access for all’ and ‘licensing level’ all relate to the issue of who is entitled to a SEP licence.

‘Licensing level’ is really just an aspect of ‘access for all’. It concerns the appropriate level in the value chain to provide a licence. That has been at the end device level, i.e. the mobile phone level, in the mobile phone industry. ‘Licensing level’ has recently become a contentious issue.

Decrypting ‘license to all’

‘License to all’ is an unclear concept, and one that has never been tried. To the extent that the concept is understood, it seems to involve an obligation to grant licences to all members of a value chain or to all members of a value chain who request a licence. This paper aims to explain some of the legal and practical problems associated with a supposed ‘license to all’ requirement.

Firstly, ‘license to all’ seems to wilfully ignore that it is not legally possible to provide the same licence, for the same technology, to multiple levels of the value chain. The rules of patent rights exhaustion preclude this, even if it is requested by the putative licensees. Therefore, a ‘license to all’ obligation is from a legal point of view not possible to implement.

³ According to Art. 6 read in conjunction with Art. 15.8, 15.4 and 15.5 (definitions) of Annex 6 to the ETSI Intellectual Property Rights Policy, with the ETSI undertaking, the IPR owner commits to licensing on fair, reasonable and non-discriminatory (“FRAND”) terms to those who produce any system, or device fully conforming to a standard; those who sell, lease, or otherwise dispose of any system, or device fully conforming to a standard; or repair, use or operate any system, or device fully conforming to a standard; and use any method or operation fully conforming to a standard.

Secondly, if ‘license to all’ is interpreted as an obligation to grant different licences throughout the value chain and would be further defined to include an obligation to grant a licence to the most upstream members of a value chain who demand a licence, it will introduce substantial costs and disruptive complexities into licensing. The knock-on effects of this disruption would be to devalue SEPs and thereby reduce investment in the standardization of 5G and IoT technologies. Given this potential disruption to standardisation, and its harmful impact on the EU’s objective of a Digital Single Market, any consideration of a ‘license to all’ requirement should require a clear definition and a detailed impact analysis.

Given that a ‘license to all’ regime has never been implemented before, it begs the question why this is being pushed when the potential negative consequences are so severe. There are no aspects of IoT or 5G that would require such a regime. While some aspects of the transparency agenda being advanced by the Commission could be beneficial to new entrants of 5G/IoT (e.g. providing user-friendly information regarding licensing of standardised wireless technology), no such arguments have been advanced for ‘license to all’.

Some have suggested that the ‘ND’ aspect of FRAND or the Horizontal Guidelines support a ‘license to all’ requirement. Neither argument is sustainable, as detailed herein.

2. The current licensing framework

A. Cellular Standardisation

The dissemination of technology within the wireless telecoms sector, and in many other sectors, is ensured via enforceable commitments given by SEP holders to offer access to their SEPs on Fair, Reasonable and Non-Discriminatory (“FRAND”) terms. Open wireless communication standards are created via the contribution and selection of new technology solutions whereby the different technologies compete with one another and are selected on merit by consensus. In combination, the selected technologies form a complete system specification or standard. Many of the technologies adopted are protected by patents (which are therefore essential to implement the standard, hence the designation “standard essential patents” or SEPs). The FRAND commitment ensures that the technology adopted in the standard is *accessible*⁴ for every party that wants to manufacture products or components for end products compliant with the standard.

B. Patent Rights Exhaustion, Licences and Access

Fundamental principles of patent law underpin the existing framework of effective ‘access for all’. The principle of patent rights exhaustion provides that a licence exhausts patent rights. That is, once a licensor licenses patent rights to a device or any particular component or combination of components, those patent rights are exhausted. In practice, this means that in a specific value chain, a licence may

⁴ See paragraph 287 Guidelines to Article 101 TFEU: ‘FRAND commitments are designed to ensure that essential IPR protected technology incorporated in a standard is accessible to the users of that standard on fair, reasonable and non-discriminatory terms and conditions’, and also paragraphs 294, 301 and 302, at <http://eur-lex.europa.eu/legal-content/EN/ALL/?uri=CELEX%3A52011XC0114%2804%29>.

only be granted once.⁵ This is patent right exhaustion – once a patent has been licensed, it cannot be licensed again for the exact same device.

A natural consequence of patent rights exhaustion, is that a licensor cannot offer the same licence to everyone in a value chain. A licensor cannot license patents to a chip maker for use of the patented technology in a chip and then also license the same patents to the phone maker that uses the chip in its phones, for the same purpose. A licensor cannot license the same component twice under the same patents. If patent licences are differentiated so that different licences are available to different levels of the value chain, there is no guarantee that it is possible to offer licences at every level. Moreover, to the extent that a ‘license to all’ regime could be implemented, it would have disastrous consequences for those who depend on licensing to support investment in standardisation. This is discussed in detail in Section 4 of this paper.

As a result of patent rights exhaustion, licensing practices are such that a licence at one level of a value chain can provide access to the other levels of a value chain. The established practice in the wireless telecoms industry is to license the mobile phone maker. Consumers and mobile operators have no need for licences because the mobile phone is already licensed. Component suppliers for mobile phones have no need for a licence because they receive ‘have made’ rights from the licence to the mobile phone maker.⁶ Thus a licence at a single level of the value chain provides ‘access for all’ in the value chain.

It is well-established that licensing occurs at a ‘collection point’. This collection point benefits the licensor because there is assurance that there is payment of, and collection of, royalties from the supply chain with sufficient certainty and in accordance with the identifiable purpose of the licence. The collection point also benefits the licensee, providing certainty of costs and that there will be no overpayment for the incorporation of SEPs in its products. Ultimately, this also benefits the consumer.⁷

C. Current Access for All Regime: ETSI IPR Policy and the Horizontal Guidelines

The ‘access for all’ model is reflected in both the Horizontal Guidelines and the European Telecommunication Standards Institute (ETSI) IPR Policy⁸, with ETSI being the principal SDOs for 5G and IoT.

The ETSI contract on FRAND: ‘Access for All’ works and works well

The majority of telecoms standards have been developed through SDOs reliant on substantial technology contributions made by European companies. ETSI is behind the development of 2G GSM, 3G

⁵ The law governing the exhaustion (i.e. loss of enforceability) of patent rights following the sale of a product incorporating a patented invention differs between jurisdictions and is often undeveloped or unclear. As such and due to the global nature of licences, the effect is that there is no lawful way in which licensing at multiple levels in a value chain can be realistically done effectively and efficiently.

⁶ Even if there were no ‘have made’ rights, a licensor would be hard pressed to seek licences upstream of a licensed phone. Competition law in many relevant jurisdictions would prevent a licensor from seeking upstream licences from component suppliers of a licensed mobile phone. In the U.S. this would be regarded as patent misuse or ‘double dipping’.

⁷ See Goldstein, L. and Kearsley, B, *Technology Patent Licensing: An International Reference on 21st Century patent Licensing, Patent Pools and Patent Platforms* (Aspatore, Inc, 2004), at Chapters 4 and 6.

⁸ The ‘access for all’ framework is consistent with the overall regulatory framework for the FRAND licensing of SEPs (refer to Attachment 1), and has proven to work well throughout the implementation of 2G, 3G, and 4G waves of technology. The ETSI IPR Policy is an excellent illustration of good practice pursuant to Paragraph 284 of the Horizontal Guidelines, which states that ‘In the case of a standard involving IPR, a clear and balanced IPR policy, adapted to the particular industry and the needs of the standard-setting organisation in question, increases the likelihood that the implementers of the standard will be granted effective access to the standards elaborated by that standard-setting organisation’

UMTS and 4G LTE and is currently heavily engaged in further evolutions of 4G and the development of next generation 5G standards, relying on the support of numerous R&D intensive European companies.

The ETSI IPR Policy provides as follows⁹:

“When an ESSENTIAL IPR relating to a particular STANDARD or TECHNICAL SPECIFICATION is brought to the attention of ETSI, the Director-General of ETSI shall immediately request the owner to give within three months an irrevocable undertaking in writing that it is prepared to grant irrevocable licences on fair, reasonable and non-discriminatory ("FRAND") terms and conditions under such IPR to at least the following extent:

MANUFACTURE, including the right to make or have made customized components and sub-systems to the licensee's own design for use in MANUFACTURE;

- *sell, lease, or otherwise dispose of EQUIPMENT so MANUFACTURED;*
- *repair, use, or operate EQUIPMENT; and*
- *use METHODS."*

The term “Equipment” is defined as any system or device that fully conforms to a standard.

A smartphone qualifies as “EQUIPMENT”; it can practise the specified (standardised) requirements for interoperability with a network. Individual components or sub-assembled parts - on their own - cannot. Chips, software, antennae, filters, amplifiers and the many other components and modules or sub-assembled parts of a smartphone do not themselves qualify as “Equipment” under the ETSI definition. It follows, sensibly, therefore that the policy does not require SEP holders to license the manufacturers of such components, modules or sub-assemblies. Further, the definition of "Manufacture" envisages manufacture of the end device, in this case a smartphone¹⁰.

The ETSI IPR Policy reflects the important, albeit delicate, balance of ensuring ‘access for all’ while respecting the basic right of a SEP holder to license at the appropriate (i.e. most effective and efficient) level in the value chain. For over two decades, equipment manufacturers at the handset and infrastructure level have been licensed, and a system designed to ensure the availability of standardised technology has been phenomenally successful and dynamic. To illustrate this, many of today’s top global handset manufacturers are new entrants, from outside Europe, who were not active in the mobile phone market 10 years ago, including Apple, OPPO, LG, Xiaomi, TCL, VIVO, Lenovo, etc.

Mandating a ‘license to all’ requirement would fundamentally change existing licensing practices. This would be to the significant detriment of companies that have invested and participated in standardisation at ETSI to date, who have participated in open standardization rather than seeking to develop their own proprietary, closed technologies. More fundamentally, as the facts related below will show, ‘license to all’ is designed to undermine the value and licensing of SEPs - and will undo and undermine the European Commission’s aspiration to create a ‘balanced, fast, predictable, efficient and enforceable licensing approach’.

⁹ Annex 6: ETSI Intellectual Property Rights Policy, Version 37 (April 2017) § 6.1, available at: <http://www.etsi.org/images/files/IPR/etsi-ipr-policy.pdf>.

¹⁰ Annex 6: ETSI Intellectual Property Rights Policy, version 37 (April 2017), § 15.8 defines MANUFACTURE as production of EQUIPMENT

The Horizontal Guidelines

The Commission's Horizontal Cooperation Guidelines¹¹ (paragraphs 280 to 287) contain the rationale that is reflected in the ETSI IPR Policy. The first set of paragraphs in the Horizontal Cooperation Guidelines set out the main goal of standardisation agreements, namely to provide access to standardised technology (cf. paragraphs 280, 283 and 284). In paragraph 285, a first reference is made to a commitment to license, indicating that such commitment is made "in order to ensure effective access to the standard". Finally, paragraph 287 addresses 'refusal to license' indicating that this could be problematic if it would make the implementation of the standard impossible or difficult.

In short, the overarching objective identified in the Guidelines is to ensure access to the technology. The means to achieve this goal is efficient and effective (FRAND) licensing. The Guidelines further state that what is appropriate is to be determined on a case-by-case basis – there is no set rule, but there are accepted practices for particular sectors (see paragraphs 7, 284, and cases cited in footnote 13).

Importantly, there is no requirement in European or any other source of law, whether convention, legislation, competition authority decision, or court jurisprudence, that imposes an obligation on SEP holders to grant licences to 'all' third parties. It is difficult to defend the existence of such a requirement against a background of the established industry practice to license at the handset level; a practice that has been tried and tested over several decades, and proved itself not only to be effective and efficient but also has been found non-objectionable by many courts in various jurisdictions.

The Horizontal Cooperation Guidelines make access to technology the pre-eminent goal of standardisation, as against all parties being licensed (which makes sense because exhaustion of patent rights means that patents can be licensed only once for a given device). It is also important to note that the Horizontal Cooperation Guidelines aim to provide a framework and not to create antitrust obligations as such¹². Competition law sets the boundaries of what, on a case by case basis, may in the light of concrete facts constitute a breach of it. This is very different from mandating a per se 'license to all' rule that would severely impact SEP holders' rights, interfere in the FRAND practices that exist between the SEP holder and the SDO, and impact on a conventional and customary industry practice (and corresponding business and licensing model) that has existed for decades and has been instrumental in driving an overwhelmingly successful ecosystem.

'License to all' is inherently incompatible with the Horizontal Cooperation Guidelines¹³ and the ETSI IPR Policy, and would seek to impose a fundamental change that would be exceptionally damaging to the open standards development process and the participation of companies at ETSI.

3. 'License to All' does not work – it is neither efficient nor balanced

There are many practical reasons why 'license to all' has not been adopted and would not work.

¹¹ Communication 2011/C 11/01 Guidelines on the applicability of Article 101 of the TFEU to horizontal co-operation agreements; available at <http://eur-lex.europa.eu/legal-content/EN/ALL/?uri=CELEX%3A52011XC0114%2804%29>.

¹² E.g. paragraph 279 states that the non-fulfilment of "any or all of the principles set out in this section will not lead to any presumption of a restriction of competition within Article 101(1)" but will rather require self-assessment.

¹³ See paragraph 284, which provides: 'In the case of a standard involving IPR, a clear and balanced IPR policy, adapted to the particular industry and the needs of the standard-setting organisation in question, increases the likelihood that the implementers of the standard will be granted effective access to the standards elaborated by that standard-setting organisation' (footnotes omitted).

'License to all' would operate in a manner counter to worldwide, well-established industry practices for SEP portfolio licensing¹⁴ to end-user devices¹⁵, and indeed, for FRAND licensing generally. This is due to 'license to all' fragmenting the licensing structure on different levels, as illustrated below.

A 'license to all' regime would also very quickly lead to commercial gridlock, significant uncertainty (so incurring a substantial increase in litigation and transaction costs), and loss of any adequate return on investment for those companies that contribute their key innovations to the standardisation system. Such a regime could effectively devalue SEPs to such an extent that it would no longer be worthwhile making substantial research and development investments in standards-related technology. Yet the continuous investment in the creation and further evolution of open standards is key for the realization of the Digital Single Market Strategy.

Some of the practical problems with the proposed 'license to all' change in policy are:

A. Component Level Fragmentation

Wireless telecoms cellular standards (2G, 3G, 4G) are defined in an efficient way. They generally specify how a network operates and how the user equipment and the network interoperate. The user equipment is the mobile device – e.g., the phone in your pocket. The engineers who define standards do not attempt to go upstream into the fragmented world of the many components that may be found in a network base station or a phone, and define how each component should work as a matter of implementation. That would be an extraordinary waste of time. Nevertheless, the sale of such components may infringe SEPs on a contributory basis where they amount to the supply of an essential means (e.g. a chip) for putting the invention into effect in a more complex product, that is to say the final end product.

The upstream component supply base is broad and complex. A presumption is often made that cellular standards are all practised in the baseband chip. However, if you try holding a chip in your hand and connect it to a network it will not work. To enable communications, whether voice or data, one needs much more: antennae, filters, amplifiers, power management chips, RF chips etc. – all are needed. There are also the millions of lines of software code that control the hardware. GPS and other functionality required by standards are often overlooked as well. Standardised functionality specified for user and network equipment is not 'all in the baseband chip', as some would contend. It is only in the end product, namely the (smart)phone and the base station. Equally, a SEP may not simply cover the baseband chip as the invention will often rely on the inter-functioning of multiple other components and increasingly may be implemented in software.

The scope of a patent is defined legally in what are called the 'claims'. In the case of a SEP, this might, for example, include the inter-functioning of software, memory, the CPU and the baseband chip, plus a wireless/wired connection to other equipment, to be fully implemented. Consequently, it is only in the end product that all patents essential to a standard are implemented for the purposes of patent infringement, that is to say use of the patents, which determines the licensing needs.

Forcing technology companies with SEP portfolios to 'license to all' in this upstream fragmented world would be highly inefficient and wasteful and, as such, not in line with the European Commission's stated objectives. One licence covering a single smartphone covers a myriad of components from a host of

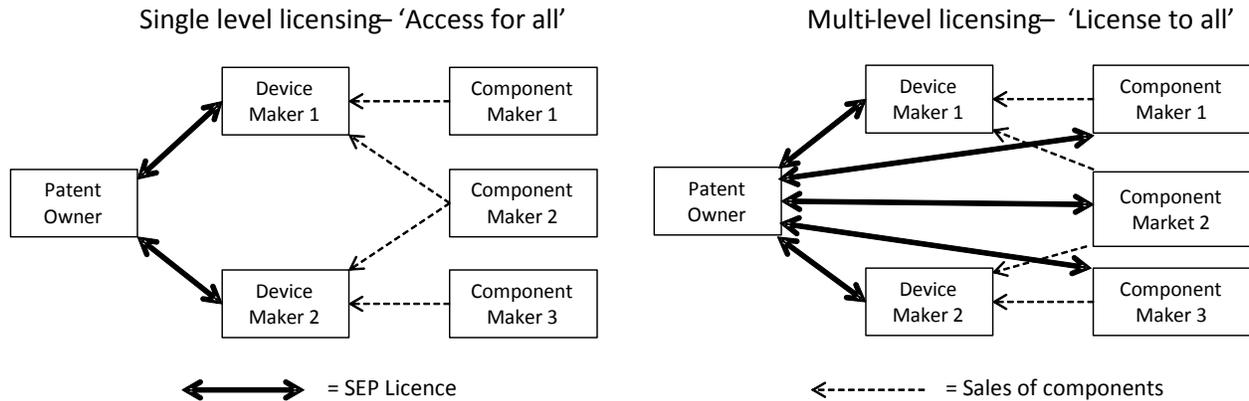
¹⁴ Examples: *Unwired Planet v Huawei*, EWHC, 2 October 2015 - Case No. HP-2014-000005; *St. Lawrence v. Vodafone* 4a O 73/14 (2016).

¹⁵ *Unwired Planet International Ltd v Huawei Technologies Co Ltd & Anor* [2017] EWHC 1304 (Pat) (07 June 2017)

different companies – some components or combination of components may infringe or contributorily infringe certain SEPs while other components/combinations may infringe/contributorily infringe other SEPs. It would be chaotic and extremely inefficient to drive SEP holders upstream into a highly fragmented and complex licensing landscape of multiple licensees and multiple licensed components.

A 'license to all' regime would have the effect that the first company to request a licence in a value chain ending in a particular product would determine the level at which a single licence had to be granted (given the principle of 'exhaustion of rights') – at least for those specific patents used/infringed by that particular component manufacturer's product. This raises the prospect that there might be relevant patents to which that manufacturer is not entitled to request a licence (or for which it does not wish to pay a licence fee) and which then have to be licensed further downstream in the value chain. There will also be other components that require to be licensed separately, made by other manufacturers. For a single end product, a SEP holder might be entitled to require licences from numerous component manufacturers at varying levels in the value chain, and they in turn might be entitled to request such licences. The licensing structure would be unwieldy and highly inefficient, if it could be achieved at all.

The difference in complexity between same-level and multi-level licensing can be illustrated as follows:



Further, even if this unduly complex licensing, tracking and enforcement framework could be achieved in practice (which it probably cannot), it would incur a very significant administrative cost overhead for both licensors and licensees. SEP holders would be required to ensure that they were not "double dipping" (i.e. charging at more than one level in the value chain for a particular patent with respect to the same device). In addition, SEP holders would need the assurance that the return they achieve at a single licensing level upstream in the value chain fairly reflected the added-value the technology provides to the end use. That would require careful tracking of components which might be used in many different kinds of devices, including devices not covered by the patent. In other words, the 'license to all' proposal is also aimed at avoiding the use case value principle as will be explained in (iii) below.

B. Commercial Gridlock

Consider a communication company investing millions or even billions of Euros in R&D each year to innovate and develop standardised mobile technologies and which owns a portfolio of SEPs. Seeking a fair return for contributing its patented technologies to the standard, it approaches a handset supplier

that implements the standard and offers a licence on FRAND terms¹⁶. Based on the 'license to all' obligation, the handset supplier refers to its component suppliers indicating that he is only willing to take a licence for the patents not licensed by its component suppliers. The SEP holder will thus have to reach out to a component chip supplier that can equally make the comment that not all patents in the SEP holders' portfolio are relevant for its chips. Furthermore, it could very well be the case that none of the SEPs are fully implemented by the chip until combined with software and other components, such as filters and amplifiers and antennae and lots of other components. In such a scenario, the SEP holder would need to reach out to all of those other companies and determine which patents of its portfolio are infringed (directly or via contributory infringement) by the different suppliers. It is clear that this will very quickly create an impasse or gridlock.

Gridlock in negotiations and licensing programmes could arise even where a handset supplier already has a licence agreement for all the SEPs of a given SEP holder. Assume the handset supplier has two suppliers of baseband chipsets. One of these suppliers decides to request a licence from the SEP holder, even though it is not necessary. Under the 'license to all' regime, the SEP holder cannot refuse and is obliged to license the baseband chipset supplier. Given the exhaustive effects this licence can have on the downstream handset supplier, the SEP holder will then have to re-engage with the handset supplier regarding its licence agreement, and to adapt the licensing terms and conditions in light of the licence with the baseband chipset supplier. Imagine what would happen if another component supplier were to ask for the same thing 3 months later, and another 5 months later. Imagine the handset supplier contracting with other component suppliers in different parts of the world (where the patent rights exhaustion principle may apply differently). The licensing task will become virtually impossible.

Fragmentation of licences at the component level, at times exacerbated by the attitude of manufacturers who wish to avoid or reduce royalty payments, will: 1) make it difficult, if not impossible, to evaluate and ensure the 'non-discrimination' aspect of the FRAND commitment – i.e. to treat competitors in an equivalent position similarly, 2) create a substantial transaction cost increase for the consumers of standardised products due to increased costs of both SEP holders and implementers alike from the increase in negotiations for and securing licences and tracking costs of component products and software through the value chain, 3) fragment and fracture the licensing landscape, 4) increase uncertainty and thus the potential for conflict and litigation, and 5) prevent an adequate return to SEP holders for their investments into standards.

Such complicating effects will be amplified in situations where component makers are based in countries where fewer patents apply or where enforcement mechanisms are weaker or less predictable than in Europe. Traditionally, patent protection focusses on countries where wireless telecom devices are made or sold (e.g. in China, Europe and the USA), and where patents can be enforced effectively. SEP holders cannot afford, or be expected, to obtain patents in every country of the world where individual components may be manufactured, nor should they be expected to do so. Forcing a substantial and unnecessary increase in patent applications would cause significant additional costs, ultimately to consumers. Also under an international Convention, it is not legally possible to extend the territorial coverage of a patent after the so-called 'Convention year'. Therefore, SEP holders will also be disadvantaged based on their current patent filing strategy under the present regime. As patents last up to 20 years, and licensed patents are at different stages within that 20-year window it would take very

¹⁶ By implementing the standard, the handset supplier infringes the standard essential patents owned by the communication company and so needs to take a licence to use the patented technology.

many years to adapt to a new 'license to all' regime, which in turn may heavily impact the possibility of securing an adequate return for SEP holders on their current and past R&D investments into standards. The costs and uncertainty of enforcement would also be greatly increased.

This 'not me' negotiation gridlock would undoubtedly emerge under a new 'license to all' regime. It would be a mandatory multi-level, multi-party licensing regime providing those needing a licence with a perfect excuse to delay or avoid taking one. In other words, a 'license to all' model would further encourage systematic hold-out, leaving SEP holders no alternative than to engage in costly litigation or risk having their SEPs devalued. Put bluntly, a 'license to all' regime would essentially endorse hold-out and encourage handset manufacturers and their component suppliers to work together to frustrate the SEP holder. SMEs would be particularly vulnerable if faced with such behaviour. In the end, forcing a SEP holder to attempt to license multiple parties in the value chain, each pointing to someone else, is not merely inefficient. Nor is the problem just that it will make licensing take years longer and incur more litigation costs. The real problem is that in many instances these licensing efforts will fail, leaving the SEP holder with no fair return, and possibly no return at all. 'Licensing to all' is simply not fair or feasible, whether in legal or practical terms. Even if it were feasible (which it undoubtedly is not) it would drive up consumer costs as SEP holders would have to try and put in place multiple licences with multiple component suppliers in multiple jurisdictions for multiple patents.

C. Component Level Valuation

Wireless telecoms cellular technology is increasingly implemented in many more products than just handsets and infrastructure networks. Currently, all kinds of product categories are emerging in the IoT area and we already have highly developed markets for things like connected cars and smart meters. Many more connected devices of all sorts will emerge in the future – in particular with the new 5G technologies. As the IoT develops many lower value uses will begin to appear, and in very large numbers. Licensing costs for these uses need to be proportionate, or developers will be deterred. New simplified licensing structures will be needed to give affordable access to the cellular technology, but 'license to all' will not help this – it will hinder it.

The reason is that if licensing occurs upstream at the component manufacturing level then it will be extremely difficult, if not impossible, to adjust the royalty cost to suit the end use of the component. A fair return on use of the technology in a smartphone will be too high for use in a smart meter; and a fair return on use in a smart meter will be too high a royalty for use of the same technology in food packaging, for instance. Given the range and volume of uses we expect to see, it is wholly unrealistic to suggest that this can be addressed by tracking the end-destination of components.

'License to all' would make it impossible for SEP holders to develop a sustainable price differentiation model that is key for the success of the IoT ecosystem and broad deployment of 5G standards.

D. European SEP holders' disadvantage

Fragmenting the licensing structure and making it far more complex introduces a further problem for European companies which conduct wireless telecoms research and licensing. Patents are inherently

national in character and have to be nationally enforced¹⁷. Until now SEP portfolios have tended to focus on key European and Asian countries as well as the USA. Mobile phones and other wireless devices and equipment are sold in these countries, and patents may ultimately be enforced in their national courts. This may occur, for example, if licence negotiations break down, or to encourage manufacturers to negotiate in good faith and not to delay unreasonably in taking a licence. Litigation is never undertaken lightly, not least because the costs of patent litigation are notoriously high. A 'license to all' regime, if pursued by European policy makers, would have the ultimate consequence of undermining effective patent enforcement to the detriment of those companies who are investing in and developing wireless standards. This is particularly the case where legal action is brought in a less experienced or less predictable legal jurisdiction, where the component supplier might have a natural local advantage.

E. License to All' advocates do not really mean 'All'; they mean 'All Upstream'

Fragmentation of licensing programmes may mean that some patents remain unlicensed at the end of the value chain, possibly because they are only infringed at that stage, or because some component suppliers are unwilling to negotiate in good faith for SEP licences (remember that an identifiable supplier would need to be licensed for each component used to implement the patented technology).

Ultimately this could mean that a SEP holder facing 'hold out' at every level in the value chain in respect of some or all of its patents would be driven to bring claims against the device manufacturer, or even against parties which are conventionally not asked to take licences in the current structure, for instance service providers such as operators and carriers. This is where the attitude of "not me, ask him" could eventually lead. If a 'license to all' regime is ever implemented the outcome could implicate companies operating downstream, which would then face increased costs for some components or equipment and still be required to take a licence for other patents. Or in a worst-case scenario, numerous companies may be unable to obtain certain components or equipment due to a court awarded injunction preventing the supply of those infringing components imposed against an upstream component manufacturer due to its unwillingness to take a FRAND licence – over which the downstream suppliers may have no control or influence.

4. Why push for 'License to All'?

It is not clear what real problem exists to be solved by imposing a 'license to all' regime on SEP holders. It certainly does not address any of the perceived needs of new entrants to 5G and IoT, since it does not add clarity but instead raises the complexity of the licensing environment, thus jeopardising investment in standardised technology.

Some have suggested that the ND aspect of FRAND requires 'license to all'. The argument is that a licensor would discriminate between different levels of a value chain if licences are not offered at all levels of the value chain. This is a disingenuous argument. The purpose of the ND aspect of FRAND is to prevent the distortion of competition between competitors. Different levels of a value chain do not compete with each other and thus the ND aspect of FRAND does not require that they each be offered a licence. Stated another way, the ND aspect of FRAND is a horizontal requirement, not a vertical

¹⁷ In the case of unitary patents in Europe, when the UPC comes into force, they will have a regional effect and will be enforced regionally, i.e. across all participating EU Member States that have ratified the UPC

requirement. Thus, the ND aspect applies to suppliers at a given level of a value chain. Therefore, with respect to a licensor, ND applies between all mobile phone makers and, separately, between all chip suppliers. In the current SEP licensing environment, mobile phone makers receive licences subject to the ND requirement. And all component suppliers receive access without paying a royalty. Thus, they are all treated similarly and the ND aspect of FRAND is satisfied. A suggestion that the ND aspect of FRAND mandates 'license to all' is misleading advocacy at its very best.

5. The appropriate licensing level – strengthening the licensing framework for the European Union

In the practical and established 'access for all' licensing framework, a licence at one level of the value chain provides access to other levels of the value chain. In the mobile phone market, such licensing has been done at the handset level. As the IoT market develops licensing may need to occur at different levels to enable this market. Thus, it would be inappropriate to define one level as appropriate for all industries and circumstances.

In addition, new licensing structures are likely to evolve in the future, and we can already see some embryonic industry-led models emerging such as Avanci (supported by Ericsson, KPN, Vodafone and other SEP holders) and the IoT Licensing Portal (a model proposed by Nokia). But for these initiatives to work, it will also require the cooperation, support and participation of licensees and for them to act in good faith and in a timely manner.

The Commission could add clarity regarding 'access for all' for the use of standard essential patents in the IoT market context by reaffirming the successfully tried and tested 'access for all' framework. It is noted that the appropriate level in the value chain to be chosen by SEP licensors can also be clarified by reference to a number of principles and considerations. We believe that the following should be taken into consideration by SEP licensors when choosing an appropriate licensing level:

- Licences should be granted at a level at which the standard is fully implemented – licences at upstream levels could result in licences to components which end up in non-standardised products or in products built to competing standards.
- Licences should be granted at a level that is consistent with the FRAND commitment undertaken by the SEP holder.
- Licences should be granted at a level which provides simplicity and efficiency for licensing – simple and efficient licensing reduces costs for licensors, licensees and consumers.
- Licences should be structured in a way which allows quantifiable accounting for use of SEPs, and therefore calculation of royalties for both licensor and licensee.
- Licences should be granted at a level at which existing margins could accommodate FRAND royalties – many levels of a value chain consistently price their components based only upon manufacturing costs and a slim margin. Such business models would be disrupted if they had to add FRAND royalties to their pricing model.
- Licences should be granted at a level which provides effective reciprocity for the licensor – reciprocity is an important protection for FRAND licensors and the licensing level affects the effectiveness of reciprocity.

CONCLUSION

The standardisation system premised on 'access for all' in the telecom market has been extremely dynamic and competitive over the last 25 years. The market has many new entrants and new technology has been developed and deployed at an unprecedented speed. At the same time, prices have declined and more and more people have access to critical mobile wireless technologies. These are the hallmarks of an extraordinarily successful ecosystem.

A 'license to all' requirement, in our opinion, would wreak havoc on this successful ecosystem. Certainly, such dramatic changes should not be instituted in the absence of justification for the changes and a detailed impact assessment.

The European Commission has declared that 'common standards ensure the interoperability of digital technologies and are the foundation of an effective Digital Single Market'¹⁸. Strong policy endorsement of 'access for all' is sought to be affirmed as the only viable model to help ensure the longevity and viability of a truly open standardisation ecosystem in future and specifically in the context of 5G and IoT.

¹⁸ ICT Standards Priorities for the Digital Single Market, COM(2016) 176, 19 April 2016

STANDARD ESSENTIAL PATENTS, DIGITAL SINGLE MARKET, SMEs AND FAIRNESS

We welcome the European Commission's aspirations to provide good practice guidance on Standard Essential Patents (SEPs) for a European digitalised economy, most likely in the form of a policy Communication¹ ("the Communication").

The aim of this paper is to continue our positive and constructive engagement in the ongoing debate by presenting a number of overarching principles that we would invite the Commission to take into account as it further develops its policy approach in this area. The paper addresses four main topics:

- A. Overarching principles** essential to ensure a legally sound, balanced and well-functioning SEP environment that supports Europe's digital economy ambitions.
- B. The three focus areas** identified in the European Commission's Roadmap of April 10, 2017, namely: (1) Transparency; (2) Valuation of Fair, Reasonable and Non-Discriminatory (FRAND) licensing terms; and (3) Enforcement.
- C. European SMEs** who are actors in the open standards ecosystem both as contributors to standardisation as well as implementers of standards in innovative products.
- D. The interface between standardisation and open source software.**

For the Communication to achieve its main goals, namely to provide a European vision and identify principles that can help create a clearer framework for SMEs and new entrants into the Internet of Things (IoT) and 5G ecosystems, it must focus on the overall conditions needed to foster market-led innovation in a robust, truly open, standardisation environment. In doing so, it will preserve flexibility, openness and competition in the evolving business and technology environment.

Europe can maintain its global leadership role in future standardisation, notably in 5G and IoT, provided we endorse the tried and tested FRAND model, fine-tuning where necessary, to ensure a true and fair balance between all commercial interests (most notably technology developers on the one hand and implementers on the other). Concepts such as "license to all" or FRAND valuation based on "smallest saleable unit" are, in truth, thinly disguised initiatives to devalue SEPs that would shift the delicate balance inherent in the traditional FRAND model and undermine the viability of open standardisation in Europe for the future.

In this regard, it is interesting to look at the example of IEEE in the USA. Controversial changes made to the IEEE Patent Policy in March 2015 have had unfortunate consequences. For instance, many contributors to the Wi-Fi related standards produced by IEEE are unable to provide assurances that they will grant access to their patented technology under the new patent policy. Discussions about patents and patent policy have tended to dominate proceedings in IEEE, and the progress of some standards has been interrupted,

¹ According to the European Commission's 10 April 2017 Roadmap: "This policy Communication will mainly provide best practice guidance to industry, SSOs and Member States without changing legal positions or rights and obligations."

even delayed², because of this³. It is still too early to say how the changes will all eventually play out for Wi-Fi, but we are already seeing fragmentation as alternative solutions are sought. Ironically, the worst effect we see is that there is growing uncertainty about access on (F)RAND terms to the technology adopted in future evolutions of Wi-Fi standards – ‘ironically’ because the fundamental purpose of the patent policy of any standards development organisation (SDO) is to *ensure* access to SEPs on (F)RAND terms *with maximum certainty*. Yet, despite this, there are still those seeking to promote more widely, even on a global basis, the kind of harmful policy changes and concepts adopted by IEEE.

The IEEE experience serves to remind us of the importance of empirical evidence and robust impact analysis before changing the delicate balance of SEP policy⁴. Reacting to untested theories, hypotheses, and speculation will prove harmful to the open standards ecosystem. In any case, the bigger problem we see in practice is not about access to SEPs but the long-term effect on future standardisation caused by implementers having little or no incentive to pay legitimate FRAND royalties in a timely manner due to little or no downside if they refuse or delay taking a FRAND licence.

Recognising that any assertion of patent hold up or patent hold out needs to be assessed and proven on a case-by-case basis, it is worthy to note that a recent study by Professors Bowman Heiden and Nicolas Petit concludes that patent hold out is a “significant phenomenon” and that, despite explosive growth in the global smartphone market (340% growth for smaller entrants in 2011-2015), SEP licensors have experienced a significant reduction in licensing revenue as a result of delay (44%) and non-payment (39%). In addition, the study documents a dramatic and steady reduction in licensing coverage for this market (from 73% in 2006 to 39% in 2016)⁵.

In short, any policy Communication must discourage hold out behaviour and encourage companies infringing SEPs to negotiate with the SEP holder and conclude a licence, where needed, in a timely and efficient manner (with legal consequences for failure to do so). A balanced approach is required in order to maintain - and further strengthen - an efficient and performing standardisation system, taking into account the interests and obligations of all stakeholders. FRAND bestows fact-specific rights and obligations on both the SEP holder and implementer, respectively. This is the purpose of FRAND as a guiding touchstone.

Invitation for further discussion

This document is intentionally concise. However, we would welcome the opportunity to discuss the content and elaborate the arguments further. Importantly, many of the points made here have been endorsed by the European Parliament in its recent report on “European standards for the 21st Century”⁶ (specific references are provided where appropriate).

² Reference: http://www.ieee802.org/minutes/2016_01/2016-01-22-minutes-v1.pdf.

³ See Standard Essential Patents – the empirical record since adoption. Symposium on Antitrust, Standard Essential Patents, and the Fallacy of the Anticommons Tragedy, Berkeley, CA. October 29, 2016. Updated March 2017, Ron D. Katznelson, Ph.D. <http://bit.ly/IEEE-LOAs>.

⁴ In its recent report on European Standards for the 21st Century, the European Parliament notes “the need for an evidence-based approach in monitoring and further developing the licensing framework in order to ensure a dynamic ecosystem that creates added value and jobs” (para. 42).

⁵ “Patent Trespass and the Royalty Gap: Exploring the Nature and Impact Of ‘Patent Holdout’”, Bowman Heiden and Nicolas Petit; June 6, 2017.

Available at https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2981577.

⁶ Link: <http://www.europarl.europa.eu/sides/getDoc.do?pubRef=-%2f%2fEP%2f%2fTEXT%2bREPORT%2ba8-2017-0213%2b0%2bDOC%2bXML%2bV0%2f%2fEN&language=EN>

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A. OVERARCHING PRINCIPLES

1. A strong European vision for the success of IoT and European leadership in 5G

The Communication should promote and further strengthen, internationally, the European model of open standardisation and a balanced FRAND system supported by the IPR Policies of the European SDOs (ETSI, CEN, CENELEC). The central objective of the Communication should be to provide companies that invest in and contribute their high-tech innovations to global standards with a robust framework – one that fosters an open, transparent, and inclusive standardisation environment, that supports re-investment, and which in turn creates the necessary scale for European innovators to compete with global technology players from other geo-political regions.

2. Access to European standards for IoT/5G is vital to Europe’s economy and the success of the Digital Single Market (DSM)

The attacks on the open standardisation system and the rise of alternative, fragmented proprietary technologies present a huge challenge for Europe, its innovators and its consumers. As with 3G and 4G, the success of IoT and Europe’s leadership in the 5G ecosystem will be determined by Europe’s ability to foster an **open, transparent** and **inclusive** standards system. Success will depend on promoting open standards and avoiding platform dominance, rather than encouraging proprietary technologies that are controlled by a few global gatekeepers.

3. FRAND needs to balance incentives to contribute to standardisation with right to access

The Communication should strongly endorse the Fair, Reasonable and Non-Discriminatory licensing model (FRAND). This ensures access and market entry to all players and creates incentives for a virtuous circle of investment and re-investment by ensuring a fair and adequate reward, including for universities, research centres and companies focused on applied R&D which contribute their technology to standards. All of these rely on licensing revenues to encourage their investment in standardisation. The European Commission’s Roadmap notes that the intention is to *“mainly provide best practice guidance... without changing legal positions or rights and obligations”*. This is a highly important principle: it is vital not to change the delicate balance established through the intersection of patent, contract and competition law, and evolving jurisprudence, as reinforced by the CJEU in its recent landmark *Huawei v ZTE* decision⁷.

4. The Communication should support market-led solutions based on efficient and widely accepted industry practice

The Communication should emphasise the importance of good faith negotiations by both parties that lead to negotiated licence outcomes, when a licence is needed, in a timely and efficient manner. It should include incentives to promote such negotiated outcomes rather than litigation. Such an approach is being reaffirmed in other jurisdictions around the world, which note that FRAND goes beyond return on

⁷ CJEU Case C-170/13, Huawei Technologies Co. Ltd v ZTE Corp., ZTE Deutschland GmbH.

investment considerations and, just as importantly, includes the expected conduct of both parties to a negotiation⁸. 5G standardisation and IoT deployment have just started and industry is already taking initiatives to address many of the concerns identified in the European Commission’s Roadmap⁹. The Communication should therefore foster and support market-led solutions and efficient, generally accepted industry practices for SEP licensing. This would also obviate the apparent objective of some stakeholders to transform the role of SDOs from fora for technical standard creation to the inappropriate role of commercial arbiter.

B. THE COMMISSION’S THREE FOCUS AREAS

I. TRANSPARENCY - A transparent environment for negotiations between SEP holders and potential licensees

1. A holistic approach to transparency

a. Principle

There are different complementary sources and tools that can support transparent and balanced licensing negotiations for all stakeholders in the ecosystem (see “Further suggestions” below). The SEP declaration systems of (European) SDOs were not intended to facilitate patent licence discussions. Their primary goal is to “clear the way” - providing maximum certainty about access to the standardised technology. The declarations made voluntarily by a SEP holder within this framework are an indication by the SEP holder of its willingness to provide access to the patented technology covered by the declaration (to the extent the patent may be or may become essential to the standard). From this perspective (optimising certainty of access), it is preferable that declarations are also made for patents that might be essential even if they later turn out not to be essential.

We recognise that it may be helpful to increase the value of SDO SEP declaration databases by improving the quality of the information they contain. However, the main objective of the SEP declaration process, i.e. to “clear the way”, must be retained in order to ensure a broad (voluntary) participation of different contributors to the standardisation system. We would also like to emphasise that the differences between SDOs and the complexities linked to these differences require a tailored and specific approach when assessing potential improvements to each individual SDO’s SEP declaration system – to the extent they even have one. The Communication should take these important limitations into account, and make only generic, not specific, pronouncements as the declaration system may differ from one SDO to another depending on the specific circumstances (such as the type of technology that is standardised, the complexity of the standard and other elements).

⁸ Conduct has been considered in recent US case law, for example, in order to assess damages for patent infringement. Treble damages were awarded in *Core Wireless Licensing S.a.r.l v. LG Electronics, Inc. and LG Electronics Mobilecomm U.S.A., Inc.* (Case No. 2:14-cv-912-JRG). In the case of *SRI International Inc. v. Cisco Systems Inc.* (Civ. No. 13-1534-SLR), attorney fees and enhanced damages were awarded against the defendant for both wilful infringement and its aggressive and unreasonable conduct of the trial (see pages 64-68). Further US case law demonstrates that expert evidence may be submitted to a court, in order to provide testimony on hypothetical increases or decreases in royalties when considering the ease with which licences can be concluded (with or without litigation) and whether there is a challenge to the validity of patents (*St Lawrence Communications LLC v. ZTE Corp. et al* E.D. Tex. Case No. 2:15-cv-349-JRG).

⁹ Two notable examples are Avanci (<http://www.avanci.com>) and the CEN-CENELEC initiative mentioned below in point 5.b.

b. Further suggestions

It would be helpful if the Communication acknowledges that:

- i. As part of a normal licensing negotiation, SEP holders provide an overview of the subject matter IP (such as a portfolio of SEPs required for the implementation of a standard). It is accepted practice that such overview should provide sufficiently detailed information mapping the patent to the relevant standard in a clear and structured manner;
- ii. Due diligence is required to be done by a potential SEP user during the product or service development phase, and certainly prior to product or service launch. A simple solution, tied in with possible improvements to the functionality of a SEP database, would be to have a field which provides a point of contact for the SEP holder (this could be a generic email address which is managed internally by the SEP holder, in terms of who in its employ ultimately receives the query);
- iii. Sample claim charts provided bilaterally under NDA as a precursor to licence negotiations should obviate the need for independent essentiality assessments¹⁰. Jurisprudence following the CJEU decision in *Huawei v ZTE* has clearly recognised the importance and usefulness of claim charts to give a good idea of the infringement and relative portfolio strength¹¹;
- iv. There exist commercially available reports on portfolio strength and licensing from various consulting firms. These kind of reports may pre-exist as “off the shelf” products for general information and bespoke reports can be commissioned for more specific enquiries.

c. The Communication could further consider:

- i. Encouraging SDOs to create and publish statistics regarding technical contributions. This could be a useful tool to inform relevant stakeholders about technology contributions (and provide a comparison/alternative to SEP declarations) on the basis of objective data;
- ii. The importance of providing information and guidance aimed especially at SMEs and ‘new entrants’ who may not be familiar with traditional SEP licensing practices. Such information could be made available via the SDO (e.g. ETSI homepage link). Links to well-known licensing programmes could be provided¹²;

¹⁰ Essentiality assessments are sometimes referred to as essentiality “checks”. The underlying assumption to using the term “check” seems to be that essentiality can be determined on the basis of a quick, binary, check-box approach. This is incorrect and it should be noted that, as explained in 3. below, assessing essentiality is a highly complex, costly and time-consuming exercise.

¹¹ Two examples: NTT DoCoMo v HTC, LG Mannheim, 29 January 2016 - Case No. 7 O 66/15; Philips v Archos, LG Mannheim, 1 July 2016 - Case No. 7 O 209/15.

¹² For instance, see the ITU Report to the Council On The Activities Of The IMT-2000 Project For 2001, Section A.7: “IPR: Intellectual Property Rights is still an area of great concern for the successful deployment of IMT-2000. The IMT Project has maintained dialog and support to the 3G Patent Platform initiative (see at <http://www.3gpatents.com/> the organization’s charter statement “The world’s leading telecommunications companies have come together and completed the definition of the 3G Patent Platform for handling the intellectual property rights associated with the 3G standards adopted in the ITU’s IMT-2000 framework. The 3G Patent Platform serves the mobile communication industry.” available at www.itu.int/council/C2002/035/imt2000link.doc).

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- iii. Encouraging SDOs to update their databases, both in terms of content and underlying design, to optimise their accuracy and remove redundancies as well as potentially misleading data as far as possible, perhaps even offering financial support to carry out such exercise where needed, in the public interest.

2. SEP Disclosure and declaration system / database

a. Principle

As indicated above, the primary goal of the SEP disclosure and declaration framework process in SDOs is to provide maximum certainty about access to the standardised technology, i.e. “clear the way”. The Communication should recognise and reaffirm this general principle and the key role it plays in ensuring the creation of open and accessible standards.

b. Optimise use of SEP databases

The Communication could encourage SDOs to further develop the utility of the SEP disclosure and declaration database by improving the precision of the database within reason, subject to a cost-benefit analysis and understanding the practical trade-offs¹³. Further, the Communication should recognise that the precision of the information provided by patent holders in declarations necessarily has an impact on timing, i.e. on when patent holders are able to submit them to the relevant SDO. Early potential SEP declarations submitted early on in the standardisation process cannot be as precise as later declarations done at a moment when standardisation work is more advanced. It would be helpful for those consulting SEP databases if the Communication encouraged SDOs to provide clear disclaimers¹⁴ regarding the legal implications (or lack thereof) of the use of the database as well as clear guidance on its intended use.

3. Patent essentiality assessments¹⁵

a. Principle

Final determination of SEP essentiality should always be the prerogative of the courts. To introduce other systems for assessing likely or deemed essentiality requires consideration of many complex, inter-related legal issues, such as: the presumptive or binding nature of the assessments; appeal possibilities (either way); guarantees on the impartiality of the person/entity performing the check; financial (and other) liabilities, etc. Equally, the costs versus the benefits gained must make any such assessments justifiable.

b. Further comments

The viability and use of essentiality assessments will need to be very carefully considered on a case by case basis by all involved, taking into account the value of such essentiality assessments; who could undertake these and under what conditions (conflicts, expertise);

¹³ The requirement to update declarations should take into account cost and effectiveness considerations. For instance, standards are revised multiple times: it is not practical for patent holders (nor relevant for prospective licensees) to make multiple revisions of past SEP declarations. Likewise, updates of declarations following litigation may only bear some relevance if the outcome of the litigation fundamentally changes the status of the SEP declaration. Finally, initiatives to limit the number of SEP declarations (e.g. by introducing fees for submission of such declarations) may be counterproductive and hamper standard development.

¹⁴ See, as an example: <https://ipr.etsi.org/>.

¹⁵ See footnote 10.

potential increase in litigation regarding such assessments; and the role of such assessments for a commercial negotiation (if any). Any SDO considering incorporating essentiality assessments in a database needs to consider whether its database is suitably constructed to hold such further information given the number of declared SEPs in their respective databases, the costs associated with these assessments (e.g. who should fund them?) and the maintenance of the database, the time required to perform a sufficiently thorough essentiality assessment, SDO liabilities that may arise, and any allegations relating to bias, partiality or lack of professional expertise of the SDO (or the service provider engaged to perform those assessments), etc.

It should be noted that an essentiality assessment of reasonable quality requires both legal and technical/engineering expertise (i.e. in the field of patents as well as the relevant technology). It is also time-consuming (going from a couple of hours to a couple of days) and therefore generally comes at a considerable cost. For standards that include technical solutions described in many hundreds of SEPs, essentiality assessments may become too expensive and not efficient from a cost-benefit perspective. Ultimately, it will need to be demonstrated that incorporating essentiality assessments will further the aim of an SDO's database: to ensure that a standard developed within its forum is able to be implemented.

One idea that has been suggested to reduce the cost of essentiality assessments is random samples of SEPs. However, a SEP portfolio strength assessment through random sampling generally may not be effective unless either 1) all SEPs are the same or of the same value (which they are not); or 2) the sample size is very large, which by definition takes away the advantage of a sample assessment to determine SEP portfolio strength. In short, random sampling may produce a misleading impression of a wider portfolio and so become more of a hindrance than a help in achieving an efficient licensing outcome. This is especially so where the standards may still be evolving and further patents may become essential.

II. FRAND Valuation - Common valuation principles for SEP technology

1. Mapping of valuation methodologies for FRAND

a. Principle

Regarding the price element of FRAND, it is considered that value-based FRAND licensing (i.e. reflecting the value-added that use of patented technology brings to a product) must be the guiding principle for valuation of SEPs in the IoT world, as it allows for a price differentiation that will be able to support the many different use cases and market segments of IoT. This approach has also been broadly endorsed by the European Parliament in its recent report on European standards¹⁶. Of course, such value-based licensing must also balance the need to provide incentives for investment in standards with wide access. Also, it needs to be noted that

¹⁶ See paragraph 25 of the relevant ITRE Committee Opinion (page 24 of European Parliament Report on European Standards). Link: <http://www.europarl.europa.eu/sides/getDoc.do?pubRef=-%2f%2fEP%2f%2fTEXT%2bREPORT%2bA8-2017-0213%2b0%2bDOC%2bXML%2bV0%2f%2fEN&language=EN>

much of the investment in standards is to develop technology which is only used in standards. Such investments must be recognized and incentivised in use-based valuation¹⁷.

It has to be noted that a valuation methodology that seeks to determine the value of a patented technology prior to the inclusion of such technology in the standard (the so-called “ex-ante” approach) is (i) impossible to determine in practical terms, since it is based on conjecture rather than empirical data; (ii) paradoxical, in the sense that determining the value of standardised technology outside of the standard is an inherent contradiction (e.g. what is the value of bandwidth optimisation technology if a phone has nothing to connect to?); and (iii) neglects that technology contributed to a standard is often the result of R&D and high-risk investments that would not have been undertaken if there was no standardisation effort in the first place. The Guidelines to Article 101 TFEU recognise this latter point explicitly¹⁸.

b. Further suggestions

- i. A strong link with or reference to the royalty base only works if it correlates with the value the technology adds to the end product. Such correlation for the value of connectivity in end products does not exist with, for instance, baseband chip prices or with car prices.
- ii. There are many methods for assessing the value that technology adds to an end product. The applicability of each of these approaches depends upon the particular circumstances:
 1. Comparable licences may disclose a market-based valuation;
 2. Price differences between similar products with and without the technology may show how a market values the technology;
 3. Apportionment of licensee profits to the technology can provide parameters for assessing value;
 4. Apportionment of cost savings to the technology may identify additional sources of value.
- iii. The Communication should further acknowledge that, as laid out by the CJEU in the *Huawei v ZTE* case, FRAND is not simply a rate or even a range of rates, but a set of licensing terms and conditions in the framework of good faith negotiations (see A.3. above).

2. Non-Discrimination ('ND' in FRAND)

a. Principle

- i. The ND element of FRAND aims to ensure that licensing terms and conditions do not discriminate between competitors.

¹⁷ For a more detailed explanation, please refer to separate IP Europe position paper on "The Proven Success of 'Access for All'".

¹⁸ See para 8 of the “Guidelines on the application of Article 101 of the Treaty on the Functioning of the EU to technology transfer agreement” (2014/C 89/03). This states: “In the assessment of licence agreements under Article 101 of the Treaty it must be kept in mind that the creation of intellectual property rights often entails substantial investment and that this is often a risky endeavour. In order not to reduce dynamic competition and to maintain the incentive to innovate, the innovator must not be unduly restricted in the exploitation of intellectual property rights that turn out to be valuable. For these reasons the innovator should be free to seek appropriate remuneration for successful projects that is sufficient to maintain investment incentives, taking failed projects into account. [...] The risk facing the parties and the sunk investment that must be committed may thus lead to the agreement falling outside Article 101(1) or fulfilling the conditions of Article 101(3), as the case may be, for the period of time required to recoup the investment.”

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- ii. In order for discrimination to be considered in the FRAND context, a number of conditions must first be met: different implementers must be similarly situated, use the technology to the same end and must compete with each other. Moreover, the difference in licensing terms and conditions between implementers, for the purposes of determining discrimination, must be sufficient to distort competition and lack objective justification¹⁹.

b. Comment

- i. It follows that the ND element of FRAND does not require that licences be extended to all actors in a value chain. The ND element of FRAND is not relevant to the licensing level issue (see 3. below).
- ii. It also follows that the ND element of FRAND does not apply to price difference for the same technology used in non-competing applications or between different product or service markets.

3. Clarifying licensing rights along the production chain (licensing level)

a. Principle

The Communication should clarify that a SEP holder complies with its FRAND commitment by providing access to the patented technology that it has contributed to the standard. The doctrine of patent rights exhaustion prevents the same patent from being licensed, for the same technology, at multiple levels in the value chain²⁰. Thus a patent licence cannot legitimately be granted at several different levels in the value chain for the same subject matter. Nevertheless, patent licences at a single level in the value chain can – and in the SEP context generally do – provide access to all in the value chain. Such ‘access for all’ is the primary goal of the FRAND commitment. The SEP holder and the user/implementer of the standard must cooperate in order to ensure that such licensing is done in an efficient manner taking into account any exhaustive effects of a patent licence and the boundaries set by the FRAND commitment.

To achieve this, it may be most efficient (subject to the specific wording of the applicable FRAND commitment at the relevant SDO) to license at the level in the value chain where devices or services are sold, leased, distributed or otherwise disposed of, which implement all mandatory and chosen optional features of the standard. It should be recognised that there are sectoral commercial norms for licensing at differing touchpoints in the value chain, and these norms serve a legitimate purpose for accounting for implementations (both by type and numerically).

The Communication should further recognise that the SEP holder's commitment to license under FRAND terms is very often subject to the condition that those who seek to receive a licence agree to reciprocate (i.e. implementer's agreement to grant a licence to their own standard essential patents to the SEP holder on FRAND terms). To license upstream in the value chain would therefore place the SEP holder at a significant disadvantage, as there would be no

¹⁹ See, for example, paras 481 to 503, in particular 494, of *Unwired Planet v Huawei*, High Court, England, 5 April 2017 – Case No. HP-2014-000005.

²⁰ Any unqualified requirement of license-to-all or license-to-any is a) impossible to implement - patent rights are exhausted before everyone gets a licence, and b) may result in double dipping and patent misuse. For more details, please see separate detailed IP Europe paper on "The Proven Success of 'Access for All'".

reciprocal grant back rights effective at the end product level, whereas the end product manufacturer would benefit from accessing the SEP holder's patents.

b. Further comments

- i. Efficiency requires a simple licensing regime, ideally with a single patent licence allowing access for all in the value chain, and licensing in a manner that facilitates meaningful cross-licensing between the parties.
- ii. The FRAND commitment is a commitment to license fully compliant products. It is not a commitment to offer licences to components and subassemblies, nor to products which do not comply with the standard.
- iii. The idea that a component manufacturer may track the end use of its products, and so be able to honour the use case valuation principle, is simply not workable in this market and highly inefficient.

4. Role of patent pools

a. Principle

The Communication should recognise that patent pools with wide participation, established on a voluntary basis, can help improve efficiency (transaction and monitoring costs, one-stop shop) and transparency, and that for the pools to be successful it is important that their pricing reflects an effective balance between incentives and access. It has to be acknowledged, however, that a patent pool does not guarantee a one-stop shop licensing solution.

The Communication should further acknowledge that patent pools do not exclude bilateral negotiations between SEP holders and implementers. This is a fundamental element of competition law globally²¹.

5. FRAND process

a. Principle

The Communication should refer to the decision of the CJEU in the *Huawei v ZTE* case and acknowledge the process outlined in the decision whereby the SEP holder, prior to seeking a prohibitory injunction for an infringement of a SEP, should make an offer to the implementer of the standardised technology. This process necessarily involves exchange of confidential information. The Communication should further recognise that in this exchange, both sides have sensitive confidential commercial information to protect. The SEP holder has confidential information relating to its IP while the implementer has information relating to its own IP, product roadmap, market and pricing, all of which can be determining factors in a licensing negotiation and agreement. NDAs are therefore a necessary tool, as they are in most other businesses. While respecting contractual freedom in licensing discussions, the Communication could nevertheless usefully encourage industry to develop a standardised NDA template that can be used by the parties when starting licensing negotiations. This would provide more clarity

²¹ See, for example, para 270 of the "Guidelines on the application of Article 101 of the Treaty on the Functioning of the EU to technology transfer agreement" (2014/C 89/03). This states: "[Licensors and licensees] should also be free to grant and obtain licences outside the pool."

to new entrants (in particular SMEs) regarding the use of NDAs in licensing discussions, as well as the type of information that is typically provided under NDA (e.g. exemplary claim charts).

b. Further comments

The Commission could participate in and encourage efforts to develop Industry Standard Essential Patent Licensing Good Practices and a Code of Conduct for IoT. Such efforts are currently underway in the form of pre-standardisation Workshops under the aegis of CEN-CENELEC, AFNOR and DIN with the participation of IoT technology (vertical) user communities and the “Internet-of-things technology provider (horizontal) community”.

The goal of this initiative is to identify and define a set of recommended good licensing practices for both good faith licensors and good faith licensees that fosters investment in and quick adoption of new wireless cellular technologies.

III. A balanced and predictable enforcement regime

1. CJEU *Huawei v ZTE* decision

a. Principle

The decision of the CJEU in *Huawei v ZTE* provides a clear yet flexible framework to facilitate licensing negotiations, allowing national courts sufficient discretion, where needed, to interpret the guidance on a case by case basis. This framework confirms that FRAND is a “two-way street” in which not only the SEP holder but also the implementer of standardised technology have a mutual obligation to negotiate in good faith with a view to conclude in a timely fashion a licence arrangement for the use of the standardised technology, where needed (see also A.3 above).

The CJEU confirmed the existence of a balanced framework by ensuring that the SEP holder can still seek, and under appropriate circumstances enforce, an injunction whilst the implementer can avoid the risk of being subject to injunctive relief by showing true willingness to enter into a binding licensing arrangement, and by giving a bank guarantee or paying money into escrow until the licence is timely concluded.

The framework defined by the CJEU is exactly that: a framework. It does not provide detailed definitions on valuation methods nor precise guidance or criteria to evaluate “willingness”. This is rightfully left to the national courts to decide in each concrete case, taking into account the specific circumstances on a case by case basis.

We do not believe the Communication needs to provide any further guidance on the interpretation of the CJEU case as European courts have, over the last two years, shown themselves perfectly capable of applying the principles set in the CJEU decision, and the jurisprudence is evolving naturally and consistently. Further prescriptive guidance would run the risk of reducing the much needed flexibility and capacity for addressing the evolving business and technology environment. In other words, more specific guidance is likely to be overtaken by advances in technology and developments in the market in a relatively short space of time.

In addition, the Communication should not tie the hands of national courts and remove the discretion of judges in interpreting the IPR Enforcement Directive (IPRED), for example by introducing rigid guidance on public interest grounds when assessing the availability of injunctive relief. There may be particular exceptional circumstances where it would be disproportionate and contrary to the public interest to award an injunction for the use of the standard, but this should continue to be left for national courts to consider on a case by case basis under the existing framework, which already imposes a proportionality requirement for measures, procedures and remedies to enforce intellectual property rights.

b. Further suggestions

- i. It would be helpful for the Communication to flag the CJEU decision and its implications from an educational perspective in order to make it better known to the broad audience of stakeholders: both licensors and licensees can use the framework to help structure their negotiations, and the international community can use this guidance to help address some of the questions that are often raised in the FRAND debate.
- ii. The Communication could further point out that parties involved in a FRAND-related dispute could narrow it to the non-discriminatory aspect only, and therefore focus the FRAND adjudication process mainly on the question of whether or not the FRAND offer made to the implementer is 'in line' with offers made to similarly situated licensees (most likely via reference to comparable licences).

2. Portfolio litigation and damages

a. Portfolio related principle

The Communication should acknowledge that worldwide SEP portfolio licensing is a well-established industry practice, and indeed the norm, for FRAND licensing and furthermore that courts have, in recent cases²², demonstrated that they can deal in an efficient manner with SEP portfolio litigation²³. A portfolio based approach is required for timely and efficient dispute resolution especially where complex standards are involved. Court decisions which determine the main terms for a worldwide portfolio licence (see, for instance, the Unwired Planet case) promote settlement. Piecemeal decisions, on individual patents, simply promote serial litigation.

b. Further suggestions

The Communication could usefully make practical suggestions that would encourage parties to find a negotiated outcome to the licensing discussion as an alternative to litigation. Such suggestions are in line with the CJEU *Huawei v ZTE* decision that in essence provides a prospective licensee a "safe harbour" from SEP injunctions. Indeed, where the CJEU decision protects implementers against abusive behaviour of a dominant SEP holder, an SEP holder should equally be defended against an abusive implementer that uses delaying tactics, unworkable piecemeal licensing offers and forces lengthy and complex patent (especially patent by patent) litigation on a worldwide scale to wear down the SEP holder, forcing them to accept sub-FRAND compensation.

²² Examples: *Unwired Planet v Huawei*, EWHC, 2 October 2015 - Case No. HP-2014-000005; *St. Lawrence v. Vodafone* 4a O 73/14 (2016).

²³ The European Parliament also endorsed SEP portfolio licensing in its recent report on European standards – see para. 25 of ITRE Committee Opinion (page 24).

Such suggestions could include:

- Compensatory damages or legal and other cost awards for delayed negotiations, abusive litigation practices or willful continued infringement. Unlike with other IPR infringements, such as with copyright and trademarks (where the injured party receives damages suffered as a result of the infringement, including lost profits and any unfair profits made by the infringer), damages in FRAND litigation cases are generally limited to the determined value of the FRAND licence. As a result, this does not effectively achieve the twin objectives of compensation and deterrence under EU law (IPR Enforcement Directive, Articles 13 and 3(2)). Instead, this creates an incentive to infringe standard essential patents, as the worst outcome for the infringer is simply paying the actual licence he would have had to take in the first place;
- The idea that adjudicators could take into account the existence and progress of the litigation in their FRAND determination in order to address the risk that limiting damages to a normal FRAND rate amounts to incentivising litigation over negotiation;
- Discretionary enhanced damages or legal and other cost awards for knowing infringement in the case of an unwilling licensee or due to abusive litigation tactics. This would act as an incentive for an infringer to conclude a licence rather than just hanging on, knowing that they will be in no worse position if a court does eventually find infringement;
- See above (footnote 8), relating to recent US litigation on the conduct of parties in licensing negotiations, and the court's response to a party's conduct which has been found to be not in good faith;
- It is of course accepted too that if a SEP holder conducts abusive litigation or negotiation practices, adjudicators could also take such practices into account in any FRAND determination or award for damages or legal or other costs.

3. Promoting the role of Alternative Dispute Resolution (ADR)

a. Principle

The Communication should acknowledge that alternative dispute resolution procedures can be useful alternatives for the parties to consider, on a voluntary basis, provided both are acting in good faith and are genuinely interested in finding an efficient solution to the licensing discussions. ADR processes must however not be abused to try to delay discussions.

b. Further comments

The Communication could specifically mention the mediation process: if it is captured in a defined and strong framework that allows for a timely process, then mediation can promote settlement. The mediation process can also offer some interesting solutions for the SMEs that work in the standards ecosystem, both as contributors to and implementers of the standard. Mediation though should not be abused in order to cause delay.

Arbitration could also be supported on the basis of: voluntary nature, good framework, timeliness, pool of experts and arbitrators that are familiar with the standardisation ecosystem and use of IPR, etc.

The Unified Patent Court Agreement, now expected to come into force in 2018, establishes a patent mediation and arbitration centre ("the Centre") in Ljubljana and Lisbon. The Communication could usefully propose measures to explore how the Centre might become a recognised forum for SEP disputes.

C. EUROPEAN SMEs

1. **SMEs and standards**

a. Principle

The Communication should acknowledge that an open, transparent and inclusive standardisation environment based on Fair, Reasonable and Non-Discriminatory licensing (FRAND) is one that rewards investment in innovation and enables access to the best-in-class open technologies for all:

1. For the SMEs that use standardised technology to create innovative products and services, the standardisation environment provides guaranteed access to leading edge technology via the FRAND commitment (and so on FRAND conditions);
2. For SMEs that contribute to the standardisation effort, an environment where they can contribute high tech solutions in exchange for a return on investment that does not require that they themselves be involved in further product development and commercialisation efforts, thus allowing the SMEs to focus on and scale up activities in which they excel.

It is, therefore, in the general interest of SMEs to ensure the existence and preservation of this open, transparent and inclusive environment.

b. Further suggestions

The EU needs to promote innovation incentives and best practices for R&D tax credits based on successful national schemes to assist SMEs that participate in the development of IoT standards. Meaningful financial incentives focused on Research & Development have to be available for smaller entities and must provide an equivalent tax break for every euro invested in R&D (provided the appropriate performance-related indicators and review mechanisms are in place).

The Commission is urged to implement – without delay – the relevant non-legislative supporting measures in its Start-up and Scale-up Initiative, Putting intellectual property at the service of SMEs to foster innovation and growth²⁴.

2. **IP Enforcement**

a. Principle

SMEs contributing to the development of standards that intend to license a portfolio of patents face potentially huge cost and time-consuming challenges. The cost and timeliness of obtaining licensing revenues (and of enforcing rights when necessary) are challenging for SMEs, and inevitably have a negative impact on their investment in standardisation activities.

It is becoming almost standard business practice by some large companies to force SMEs and small inventors to litigate in order to prevent the continued infringement of their standardised

²⁴ COM/2016/0733 final. Link: <http://eur-lex.europa.eu/legal-content/EN/TXT/?uri=COM:2016:733:FIN>.

technologies. In most cases, the SME will not have the financial means to sustain litigation costs, and even less to post the multimillion euro bonds that may be required to obtain preliminary injunctions against infringements. This problem is exacerbated since the SME may have to litigate in multiple jurisdictions to protect against infringement of their technologies.

The Communication should therefore focus on actions that can improve the position of SMEs in this regard, including the supporting measures proposed in the EU communication *“Putting intellectual property at the service of SMEs to foster innovation and growth”*.

b. Further suggestions

The EU and its Member States should promote and ensure a fair, fit-for-purpose legal system so that SMEs in particular can protect their hard-won inventions and cost-effectively challenge those that infringe their SEPs, particularly large(r) companies using inventions and patents owned by SMEs without paying the necessary FRAND licence.

Pro-SME measures, including easier access to Courts and reduced fees, should be made available in all jurisdictions to ensure that any litigation and costs supported by SMEs to protect their R&D investments are not beyond their financial reach.

IP Europe has on 27 June 2017 published an SME Manifesto in which it proposes a series of measures to improve SMEs’ knowledge and use of intellectual property rights. Some of these measures go beyond the strict standardisation framework but could nevertheless contain useful elements to encourage and facilitate the participation of SMEs in standardisation efforts. The link to the SME Manifesto is provided here: <http://www.iptalks.eu/sme-manifesto>.

3. Transparency

a. Principle

In order to improve transparency for SMEs, the Communication should focus on measures that can help provide better access to existing information for SMEs as well as developing educational initiatives aimed specifically at an SME audience. The European SDOs (in close collaboration with SMEs) can play an important role to achieve this.

D. INTERFACE BETWEEN STANDARDISATION AND OPEN SOURCE SOFTWARE

1. **Principle**

As previously expressed by the European Commission²⁵ and by the European Parliament²⁶, the Communication should acknowledge that standardisation and open source software can and do co-exist and benefit from one another. Their complementary roles are likely to further increase in the IoT ecosystem, and in order for this interaction to be successful, there needs to be a mutual understanding of the complementary work performed by their respective communities, i.e. the standardisation community and the open source community.

One aspect of open source that is often overlooked is that it is primarily concerned with implementation, whereas standards are concerned with defining architecture and ensuring interoperability. The aim of open source, historically, has been to provide low upfront cost implementation solutions. It has not been about developing new technology or ensuring that such technology is interoperable, as is the case for technical standards. Therefore, the level of R&D investments in both open source and technical standards by industry has been significantly different. It is for this reason that many companies, while accepting certain royalty-free commitments in open source, are unwilling to do so in the case of many technical standards. In developing the latter, they are generally unable to make a return on their sunk investments solely through either a reduction in operating costs, as is usually the case from using open source software, or from product sales – which are often sold at low margins due to the accessibility to their invented technology by all in the industry, leading to highly competitive global markets created from standardisation.

It should also be recognised that the open source and standards communities themselves are not mutually exclusive. Numerous companies, including member companies of IP Europe, are heavily involved in the development of both. And currently there are numerous open source projects ongoing implementing or aiming to implement various standards without the direct participation of SDOs.

For a successful interaction between the standards community and the open source community going forward, there needs to be mutual recognition that contributors from both communities are entitled to an adequate reward for their contribution through their respective business models. A system that favours one over the other, for example by appropriating intellectual property, will not work in the long term. In the end, if the incentives to contribute are not there, the project – whether open source or standards-related (or both) – will fail.

To achieve a successful collaboration or integration between the two communities, the relevant legal framework (such as the SDO IPR Policy or the licensing terms and conditions applicable to the respective code contributions) must remain business model-neutral and should allow each IP rights holder to choose either to charge royalties or to make its contributed IP accessible on a royalty free basis, where and when the IP holder deems this appropriate. This collaboration may therefore

²⁵ Link: <http://bit.ly/1XfsoOr> (see “What is the position of the Commission on Open Source Software and Standard Essential Patents?”).

²⁶ European Parliament report on European Standards for 21st Century, paragraph 41: “recognises (...) that diverse business models, such as royalty-free licensing and open source software implementation, exist and accordingly legislation and discussion should continue to recognise the use of all models on a basis including the rights of all market sectors and IPR holders;” (page 12) [emphasis added].

require both communities to find new mechanisms and terminology in order to balance the interests and incentives of both communities.

It should be observed that even though a standard implementation can be made available as open source software under an open source licence, the use of such software is often still subject to use (i.e. infringement) of any SEP applicable to the standard and hence to the licensing commitment made by each SEP holder. It therefore remains important to:

- Secure the licensing commitment of each SEP holder that contributes technology to the standard (otherwise it will jeopardise the “clear the way” principle); and
- Make sure that, before any standard-related open source activity is launched in an SDO, **(i)** it is done in a way that ensures business model neutrality (necessary for continued broad participation in open standardisation), and **(ii)** that the royalty regime - either royalty-free or royalty bearing - of each deliverable is defined so that each SEP holder can decide whether or not to engage in this activity by contributing its IP and submit the appropriate SEP declaration.

*** End