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To
The Chairman,
Telecom Regulatory Authority of India (TRAI),
New Delhi.

Date: 13.11.2017

Sub: Response to the consultation paper on "Promoting local Telecom Equipment manufacturing" circulated by Telecom Regulatory Authority of India (TRAI) on 18th September 2017.

Dear Sir,

Institute of Excellence on Intellectual Property Rights and Standards (IOE-IPR & S), working under Centre for Intellectual Property Rights Research and Advocacy (CIPRA), National Law School of India University (NLSIU), Bangalore (www.nls.ac.in) has been involved since considerable time in research, on issues related to Standards and Patents. In response to a consultation paper circulated by Telecom Regulatory Authority of India (TRAI) on "Promoting local Telecom equipment manufacturing" on 18th September 2017 we find Qn. No. 3, 4, and 5 are related to issues upon which we have been involved in research.

In such regard we are obliged to send you a response towards Qn. No. 3, 4 and 5, of the referred consultation paper.

Please find our response attached with this letter.

We will be obliged to provide any further research on such issues, whenever it is required.
Thanking you,

With regards

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**Response regarding Patents and Standards issues to a consultation
paper
On
“Promoting local telecom equipment manufacturing in India in respect
to regulatory issues”**

In response to a consultation paper circulated by TRAI on Promoting Local Telecom Equipment Manufacturing, 18th September, 2017¹, this report consist of issues, observations and respective recommendations in regard to Question numbers 3, 4 (in regard to some relevant aspects) and 5 of the consultation paper.

Glossary for the purpose of this report

ADR	Alternative dispute resolution
ANSI	American National Standards Institute
CCI	Competition Commission of India
CJEU	Court of Justice of the European Union
Consultation paper	Consultation paper circulated by TRAI on Promoting Local Telecom Equipment Manufacturing, 18 th September, 2017
EC	European Commission of European Union
EMVR	Entire Market Value Rule
ETSI	European Telecommunication Standards Institute
FRAND	Fair Reasonable and Non-Discriminatory
FTC	Federal trade commission of USA
ICT	Information and Communications Technology
IEEE	Institute of Electrical and Electronics Engineers Standards Association

¹Consultation paper on Promoting Local Telecom Equipment Manufacturing, TRAI,18 Sept.(2017)
http://www.trai.gov.in/sites/default/files/CP_on_Manufacturing_18_09_17.pdf

ITC	International Trade Commission of United States
JFTC	Japan Fair Trade Commission of Japan
KFTC	Korean Fair Trade Commission of South Korea
Manufacturer	Telecom Equipment Manufacturer
MSME	Micro, Small and Medium Enterprise
SAIC	State Administration for Industry and Commerce (China)
SEP	Standard Essential Patents
SSO	Standard Setting organisation
SSPPU	Smallest Saleable Patent Practicing Unit
TRAI	Telecom regulatory Authority of India
TSDSI	Telecommunications Standards Development Society, India
WTO	World Trade Organisation

Questions which have been responded

Question 3: Are the existing patent laws in India sufficient to address the issues of local manufacturers? If No, then suggest the measures to be adopted and amendments that need to be incorporated for supporting the local telecom manufacturing industry.

Question 4: Is the existing mechanism of Standardisation, Certification and Testing of Telecom Equipment's adequate to support the local telecom manufacturing? If not, then please list out the short-comings and suggest a framework for Standardisation, Certification and Testing of Telecom Equipment's.

Question 5: Please suggest a dispute resolution mechanism for determination of royalty distribution on FRAND (Fair Reasonable and Non-Discriminatory) basis.

Introductory observations and relevant Issues to be addressed

India is the 2nd largest in the world in terms of mobile phone market and 4th largest across Asian market in terms of mobile infrastructure.² In fact, in 2016, around 250 million units of mobile phones were expected to be sold in India³, however most of such telecom manufacturers selling their product in India are not Indian. In fact none of Indian manufacturer finds place among top five sellers of smart phones in Indian market.⁴ Even those who are manufacturers, most of them are in business of assembling components imported from different jurisdictions than the real manufacturing of the equipment itself. Even having such a huge market, India is yet to become a real manufacturing hub of telecom equipment. In such regard apart from other issues involved, the present regulatory eco-system is not very conducive towards making a congenial environment which can support the increase in local manufacturing of telecom equipments and ICT products. Manufacturing of telecom equipments generally require to follow a particular set of standard, where thousands of patented components- usually referred as Standard Essential Patent (SEP) are part of such standard and manufactures are required to obtain licence from their respective holders for manufacturing purpose. In such regard following major critical areas may be identified with respect to the Standards and Standard Essential Patents (SEPs) in India:

Licensing: Licensing of different SEPs of a particular standard are not very much streamlined due to which the process of negotiating and acquiring

² India now second-largest smartphone market in world, The Hindu, Oct. 26, (2017). Available at: <http://www.thehindu.com/sci-tech/technology/india-now-second-largest-smartphone-market-in-world/article19926744.ece> (last access on Nov. 2, 2017).

³ Mobile phone market to reach 250 mln units in India this year, India Today, Jan 19, (2016). Available at: <http://indiatoday.intoday.in/story/mobile-phone-market-to-reach-250-mln-units-in-india-this-year/1/574437.html> (last access on Nov. 2, 2017).

⁴ Shruti Dhapola, In a first, no Indian smart phone manufacturer in IDC's top five list for Q4, The Indian Express, Feb 13, (2017). Available at: <http://indianexpress.com/article/technology/tech-news-technology/idc-q4-2016-xiaomi-lenovo-chinese-players-dominate-indian-players-out-4522342/> (last access on Nov. 1, 2017).

license by the manufacturer has neither been a smooth process nor a transparent one. The absence of a transparent mechanism in respect to negotiating process in such regard is one of the inhibiting features towards creating a healthy and competitive market for telecom manufacturers. In case of SEPs for the purpose of licensing and other consequential related issues, SSOs can play a major role. Whereas, in absence of any guidelines or any such instrument, ambiguity in policies of SSO's regarding Licensing is likely in higher degree of probability, as their policies in such regard varies in larger degree. However, SEP holders are usually obliged to offer the license on FRAND terms but SSO's policies usually does not clarify as to what specific terms or limitations are imposed by a commitment to FRAND licensing; what is meant by the individual terms "fair," "reasonable," and "non-discriminatory". SSOs generally do not define what is meant by FRAND and its component terms: "fair, reasonable, and non-discriminatory." This ambiguity invites increasing litigation in courts leading to "Patent hold up". Further, issues like the policies regarding the basis for fixation of maximum royalty which may be "ex ante" or "ex poste", how FRAND shall apply to portfolio licenses and cross-licensing, how non-royalty licensing terms (e.g., grant-backs, geographical or field of use limitations, etc.) shall be dealt are usually missing that leaves a possibility of ambiguity causing a hindrance in the market process.

Disclosure: Disclosure requirement in IPR policies of SSOs is one of the most important elements of such policies and play the pivotal role in such regard having the objective of increasing the degree of knowledge and transparency relating to patents in the course of the standards development process, and for subsequent licensing. Information on disclosed patents and, often, associated licensing commitments is usually made public in databases published by standard-setting organizations (SSOs).⁵

⁵ Keith Maskus and Stephen A. Merrill, Eds. Patent Challenges for Standard-Setting in the Global Economy: Lessons from Information and Communication Technology, (2013).

However, in the absence of any guideline or instrument in such regard, uniformity in regard to disclosure policy is evidently missing.

The variation and ambiguities in rules regarding disclosure is usual among SSOs. IPR policies of SSOs leave a considerable gap for non-transparency regarding how patent information is to be disclosed and used and to whom it is to be made available. Particular elements of policy that could be made more transparent include patent-information updates, the lack of information associated with blanket disclosures, and the failure to make disclosures and licensing commitments public. Publicly available SSO patent disclosure databases—and possibly licensing commitment databases—could help implementers, licensors, and many other stakeholders become more confident about how to secure rights, evaluate claims of essentiality, establish royalty fees if any, and understand competition and antitrust concerns.⁶

The failure of adequate disclosure leads to royalty stacking and ex post hold-up in consequence of the failure of negotiations between licensor and prospective licensees (manufacturers). Due to inadequacy of available information there may be a large gap among their proposals and expectations, which may discourage the manufacturers to enter into market. In such regard, issues like, what qualifies as an “essential” patent for a particular standard, when disclosures must be made in the standards development process, what amount of disclosure may be made and is there any need of a blanket (non-patent specific) disclosure, to whom such disclosed information is to be provided, and whether there is a requirement to update further of such disclosures, require attention and respective policies in such consonance.

Injunctive Relief: The question of availability of injunctive relief has a powerful incentive-related impact on the bargaining positions of the

⁶ Keith Maskus and Stephen A. Merrill, Eds. Patent Challenges for Standard-Setting in the Global Economy: Lessons from Information and Communication Technology, p49 (2013).

parties.⁷In case of the failure of negotiation or otherwise the patent holder as an aggrieved party usually approaches a judicial forum seeking an injunction against the prospective licensee/ licensees, which creates the situation of “Patent Hold-Up” which does not create a conducive environment for the telecom manufacturing market in particular and technology market in general.

Once a subject of patent becomes the part of a standard on agreed terms and such patent holders are required to offer licenses in such regard usually on FRAND terms, in such case how a FRAND commitment should affect such patent owner’s ability to seek or threaten to seek Injunctive Relief as a remedy for patent infringement is a question by which many of major jurisdictions including India has been confronted with, and requires to be reconciled ensuring the balance of rights of parties, in furtherance of providing a smooth market for telecom manufacturing. Finding such interlocutory relief in conflict with the commitment to license such SEPs on FRAND terms, different Competition authorities and higher courts of many major jurisdictions are generally agreed that in the case of a FRAND-encumbered SEP an injunction should be a remedy of last resort. In the absence of any guidelines or instrument in such regard SSOs neither obligates any restriction in regard to remedies a member or third-party beneficiary of a licensing commitment may pursue in court nor usually they offer any mechanism which can mitigate before reaching to the court and discourage such practice.

In this context, questions arise whether injunctive relief is a legitimate remedy for patent infringement in major jurisdictions; whether availability of injunctive relief is subject to certain limitations; what defines a “willing licensee” under specific circumstances; whether seeking an injunctive relief could amount to anti-competitive practice and what sort of mechanism

⁷Chyssoula Pentheroudakis & Justus A. Baron JRC Science for policy report, Licensing Terms of Standard Essential Patents, EUR 28302 EN, (2017).

may be adopted to avoid such situation to arise, which require to be answered.

Considering above issues and other strategic concerns, there is a need to streamline the patent system and working of standards towards developing a conducive environment for telecom equipment manufacturing in India. In such regard clarifying various aspects of making and working of FRAND commitments towards licensing of SEPs, formulation of certain guidelines by appropriate agency which may include, conditions for compliance with FRAND, guidance related to royalty demands, their apportionment of shares when many patents are necessary to comply with a standard and a conducive dispute settlement mechanism in case of any dispute in such regard. Some legislative measures also may be helpful in such regard. Considering different factors and international judicial developments, some submissions before the higher courts in regard to the granting interlocutory relief also may be made for their consideration.

Recommendations

1. A comprehensive guideline may be supplied by concerned government agency or any other appropriate body which may cover issues related to the regulation of Standard Essential Patents (herein after SEP) and Standard Setting Organisation (herein after SSO).

The mechanism of providing a guideline may create a coherent environment for the market, where the market will be induced towards achieving self-regulation with least Governmental intervention along with minimising the functional liabilities of Government Agencies. Similar such mechanism has successfully been adopted in different jurisdictions of the world by different agencies or through guidelines issued by courts, including- Federal trade

commission (FTC)⁸ of USA, European Commission⁹ of European Union, Japan Fair Trade Commission (JFTC)¹⁰ of Japan, Korean Fair Trade Commission (KFTC)¹¹ of South Korea, Competition Bureau¹² of Canada, Orange-Book-Standard adopted by the Federal Court of Justice of Germany¹³ and a guideline issued by The Supreme Court of China in such regard.

Patented technologies which are forming part of standards known as Standard Essential Patents (SEPs) are also protected under patent law regime of national jurisdictions. In licensing negotiation of such patents, due to forming part of standard, patent holders shift into a better bargaining position, whereas, a manufacturer as a prospective licensee, who seeks to access such patented product at affordable price finds itself in an uncompetitive market practically left with almost no choice of any other technology as such product is forming part of the standard. Therefore, a tension is likely between such patent holders and users of such patented technologies who are usually the manufacturers due to differences in their

⁸Antitrust Guidelines for the Licensing of Intellectual Property, U.S. Department of Justice and the Federal Trade Commission, Jan. 12, (2017).

Available at: https://www.ftc.gov/system/files/documents/public_statements/1049793/ip_guidelines_2017.pdf (last access on Nov. 5, 2017).

⁹Competition Policy Brief, Occasional discussion papers, Directorate General of the European Commission, June (2014).

Available at: http://ec.europa.eu/competition/publications/cpb/2014/008_en.pdf

¹⁰Guidelines for the Use of Intellectual Property under the Antimonopoly Act, Sept. 28, (2007)

Available at:

http://www.jftc.go.jp/en/pressreleases/yearly-2016/January/160121.files/IPGL_Frand_attachment.pdf (last access on Nov. 2, 2017), and Guidelines on Standardization and Patent Pool Arrangements June 29, (2005).

¹¹Guidelines for Review of Unreasonable Exercise of Intellectual Property Rights, 30, 2000, Korea Fair Trade Commission

Available at:

[http://www.aipla.org/committees/committee_pages/Standards_and_Open_Source/Committee_Documents/KFTC_IPR_Guidelines_\(Amended_Dec._2014\).pdf](http://www.aipla.org/committees/committee_pages/Standards_and_Open_Source/Committee_Documents/KFTC_IPR_Guidelines_(Amended_Dec._2014).pdf) (last access on Nov. 2, 2017).

¹²<http://www.competitionbureau.gc.ca/eic/site/cb-bc.nsf/eng/03808.html> (last access on Oct. 29, 2017).

¹³Orange-Book-Standard is a decision issued on May 6, 2009 by the Federal Court of Justice of Germany on the interaction between patent law and standards, and more generally between intellectual property law and competition law. The Court held that a defendant, accused of patent infringement and who was not able to obtain a license from the patentee, may defend himself, under certain conditions, by invoking an abuse of a dominant market position.

interests and bargaining positions. A balanced market with balanced interests of parties only can create a better environment for market activities including manufacturing. However, holders of such patent known as Standard Essential Patent are usually obliged to offer licenses to the prospective licensees which are usually manufacturers in this case on FRAND terms but since the process of licensing and disclosure of information is not very streamlined in case of negotiation deadlocks between the parties, Patent Hold-Up situation arises. To avoid such situation and making it conducive for the market to grow, a set of guidelines with following elements may be helpful in such regard.

1.1 It may be made obligatory on the part of SSOs to disclose information regarding patents which shall form part of the Standard and their respective holders.

The requirement of disclosure should be covered as the minimum goal under IPR policies of SSOs as the failure of same leads to royalty stacking and ex post hold-up. Further, such guideline may help in providing a transparent ecosystem in which negotiation for obtaining license will be easier for manufacturers. ANSI Patent Policy Guidelines¹⁴ has directed similar arrangement which suggests early disclosure of essential patents, so the requests can be made to the participants during the development of standards for the disclosure of essential patents. It also states that it is desirable to encourage disclosure of as much information as possible concerning the patent, such as the identity of the patent holder, patent number etc. In addition to above, there may be onus on SSOs to monitor SEP, as they have technical experts in their panels and also evaluate patents declared by its members to determine whether the disclosed patent is essential for the standard or not. There should be clear policy of SSO on what becomes an essential patent and what should be reasonable terms and conditions for licensing such SEPs.

¹⁴Guidelines for Implementation of the ANSI Patent Policy, (2015) Available at: <https://share.ansi.org/Shared%20Documents/Standards%20Activities/American%20National%20Standards/Procedures,%20Guides,%20and%20Forms/ANSI%20Patent%20Policy%20Guidelines%202015.pdf> (last access on Nov. 2, 2017).

1.2 Transparency may be ensured in regard to the ownership and licensing of SEP by directing Standard Setting Organization (SSO) to ensure a disclosure of relevant information by SEP holders.

The practice of SSOs does not obligate SEP holders to disclose FRAND licensing commitments, non-availability of which leads to differences in expectations at the time of negotiation along with uncertainty which ultimately result in royalty stacking and ex post hold-up. SSOs also may be directed to consider of separating disclosure from licensing commitments and define their preferred timing and specificity of disclosures. Disclosed information may be made available by SSOs to the prospective licensees¹⁵. In such regard SSOs may be advised to maintain registry of licensing commitments made by SEP holders. By increasing the efficiency of patent office a possibility of consideration such regard for future may also be considered in consultation of stakeholders.

Regulatory developments in China where, regulations by China's State Administration for Industry and Commerce (SAIC)¹⁶ and State Intellectual Property Office (SIPO), in regard to anti-competitive practices known as Anti-Monopoly Law (AML)¹⁷ which obligates mandatory disclosure, may be noted. Such regulation also obligates that license are to be held on FRAND terms and in cases where the patent holder does not agree to give license on FRAND terms- the relevant authorities must negotiate with the patent holder.¹⁸

¹⁵Article 1.4 IPR Policy, Telecom Standards Development Society, India (TSDSI), (2014). Available at: <http://www.tsdsi.org/media/Help/2014-12-17/TSDSI-PLD-40-V1.0.0-20141217.pdf> (last access on Nov. 2, 2017).

¹⁶ Regulation on the Prohibition of Conduct Eliminating or Restricting Competition by Abusing Intellectual Property Rights, The State Administration for Industry and Commerce (SAIC), (April 7, 2015) Available at: <http://www.wipo.int/wipolex/en/details.jsp?id=15668> (last access on Nov. 5, 2017).

¹⁷The Regulation is issued to implement the high level principle in the Anti-Monopoly Law ('AML') that applies to anti-competitive abuses of intellectual property rights. This principle aims achieve the goals of promoting competition and innovation and protecting consumers and the public interest.

¹⁸Anti-Monopoly Law (promulgated by Order No. 68, Aug. 30 (2007).

1.3 A framework and roadmap for an ideal negotiation between Patent holder and prospective licensee (which are generally manufacturer in case of telecom equipment market in India) may be forwarded.

Towards ensuring the licencing negotiation and avoiding the situation of leading such issue to land up in courts, the guideline may provide a framework of an ideal negotiation which will help in streamlining of such process. An indicative guidance may be taken from the decision in *Huawei v. ZTE*¹⁹, by the Court of Justice of the European Union (CJEU) which has provided a framework for negotiation dynamics between the prospective licensor and licensee in cases where they are competitors and the licensor hold a dominant market position.

1.4 It may be directed to SSOs that they must ensure a declaration from SEP holders about their expectation of maximum royalty towards such patent.

One approach that may address concerns about royalty stacking is for SSOs to require patent owners that intend to assert their patents to post a maximum royalty before the standard is adopted. The posting of royalties would allow potential licensees to detect potential *ex ante* hold-up and possible royalty stacking by considering the implications of individual posted maximum royalties for the aggregate royalties required to make or use products that comply with the standard.²⁰

1.5 The guideline may include directives regarding the calculation and determination of royalty rates and damages in respective cases, which may include the basis and approach of such calculations.

Available at: <http://www.wipo.int/wipolex/en/details.jsp?id=6543> (last access on Nov. 4, 2017).

¹⁹CJEU, Case C-170/13, Decision of 16 July 2015, Huawei Technologies Co. Ltd v. ZTE Corp., ZTE Deutschland GmbH.

²⁰Keith Maskus and Stephen A. Merrill, Eds. Patent Challenges for Standard-Setting in the Global Economy: Lessons from Information and Communication Technology, p 59, (2013).

1.5.1 In regard to fixing the base for such determination, following approaches and practices are being used in different jurisdictions, considering different aspects and local factors either of which or combination of few may be considered towards such attainment:

1.5.1.1 Smallest Saleable Patent Practicing Unit (SSPPU) Approach:

The doctrine of *Smallest Saleable Patent Practicing Component* (SSPPU) is the apportionment of value of such patented component by starting from the price of the smallest possible component. Using Smallest Saleable Patent Practicing Component (SSPPU) as the basis for such determination based on considering the factor that in such cases profit made from the component will be the subject of consideration rather than the profit of the manufacturers on the whole product and in such case FRAND licensor cannot discriminate between licensees on the basis of their position in the market. Comparing with the approach of EMVR approach (discussed in next section), where the doctrine of the SSPPU states that in many cases it is preferable to carry out this apportionment starting from the price of the smallest possible component, the EMVR allows the value of the end product to be apportioned to the patented feature either by selecting a smaller royalty base or choosing a lower royalty rate,

Using SSPPU as the basis for such determination has been advocated in different jurisdictions at different forums. Inclination of Competition commission of India (CCI) also, towards such approach may be noted in their different orders. ²¹The concern here is that the market price of the

²¹Micromax Informatics Ltd v Telefonaktiebolaget LM Ericsson, Case No. 50 of 2013, Competition Commission of India (12 November 2013),
Intex Techs.(India) Ltd v Telefonaktiebolaget LM Ericsson, Case No. 76 of 2013, Competition Commission of India (16 January 2014),
Best IT World (India)Private Ltd. v Telefonaktiebolaget LM Ericsson, Case No. 4 of 2015, Competition Commission of India (12 May 2015),
FRAND in India: The Delhi High Court's emerging jurisprudence on royalties for standard-essential patents
Available at:
https://www.researchgate.net/publication/279154371_FRAND_in_India_The_Delhi_High

downstream product can reflect a great deal of value to consumers derived from other sources – value that the SEP holder can expropriate through hold-up and in such regard, the SSPPU was designed as a step towards mitigating the risk of hold-up.²²

However, In *Commonwealth Scientific and Industrial Research Organisation v Cisco Systems, Inc*²³, a Federal Circuit court of USA rejected the argument of adopting the SSPPU as the basis for a damage analysis. The Delhi High Court also did not rely on such approach in regard to such determination and used the value of downstream product as a royalty base and relayed on comparable licences for determining a FRAND royalty rate while granting interim measures.²⁴ In India even when in above referred orders, CCI decision appears in favouring the use of SSPPU as the royalty base for the calculation of FRAND royalties, the Delhi High Court did not prefer this doctrine and followed the reasoning given in decision of *CSIRO v. Cisco*²⁵ by federal Circuit court of USA and relayed upon comparable licenses approach.²⁶

The practicability of preferring SSPPU as the base may not be reliable in case of portfolio licensing which is more likely in case of most of telecom equipment. The patents in a typical large portfolio cover multiple different components of a smartphone, including SEP for communication standards, SEPs for non-communication standards as well as non-SEPs. Each family of patents in a portfolio would potentially map to a different SSPPU, and the implied royalty base for the portfolio would therefore be the aggregate of all

Court's emerging jurisprudence on royalties for standard-essential patents. (last access on Oct. 27, 2017).

²²Chyssoula Pentheroudakis & Justus A. Baron JRC Science for policy report, Licensing Terms of Standard Essential Patents, EUR 28302 EN, (2017).

²³*Commonwealth Scientific and Industrial Research Organisation v Cisco Systems, Inc.*, Slip Op 2015-1066, Fed Cir, Dec. 3 (2015).

²⁴*Telefonaktiebolaget LM Ericsson(PUBL) v. Mercury Electronics & Micromax Informatics Ltd.*, CS(OS) NO. 442 of 2013

²⁵*CSIRO v Cisco*, 809 F. 3d 1295, Fed. Cir. Dec. 3, (2015).

²⁶*Telefonaktiebolaget LM Ericsson v Mercury Elecs. & Another*, CS(OS) NO. 442(2013).

those components. It is often not possible to map a portfolio of hundreds or even thousands of diverse patents to a single SSPPU.²⁷

1.5.1.2 Entire Market Value Rule (EMVR) Approach:

Entire Market Value Rule (EMVR) is an approach developed by the Supreme Court of the United States which determines, under which conditions a patent owner is entitled to patent infringement damages based on the entire value of a product comprising more than the patented feature.²⁸ EMVR allows the value of the end product to be apportioned to the patented feature either by selecting a smaller royalty base or choosing a lower royalty rate.²⁹ EMVR requires the apportionment when the patented feature does not constitute the entire market value of the infringing product. Over the time, courts in USA have increasingly restricted the circumstances under which a patented feature can be deemed to drive the entire market value of a product. Furthermore, in order to assist US courts with implementing the apportionment requirement, the Federal Circuit court of USA has expressed a preference for damages calculations based on the price of the Smallest Saleable Patent Practicing Unit (SSPPU), however the court has also ruled that the application of SSPPU does not exclude evidence-backed reference to end product prices.³⁰

However, in the *Cornell v. Hewlett-Packard* case, Judge Rader of the Federal Circuit excluded at trial testimony that the entire market value of HP's servers and workstations should be used as the royalty base. The court found that the processor was an appropriate royalty base because the infringing part was an important component.³¹ Thus, the processor

²⁷Chyssoula Pentheroudakis & Justus A. Baron JRC Science for policy report, Licensing Terms of Standard Essential Patents, EUR 28302 EN, (2017).

²⁹Chyssoula Pentheroudakis & Justus A. Baron JRC Science for policy report, Licensing Terms of Standard Essential Patents, EUR 28302 EN, (2017).

³¹*Cornell University v Hewlett-Packard Co.*, 609 F. Supp. 2d 279 (N.D.N.Y. 2009)

represented the SSPPU and damages could be calculated against the processor as the royalty base.³²

1.5.1.3 Comparable license Approach³³:

It is a method in which a source of empirical information i.e comparable licenses is being used for evaluating the royalty rate to ensure a FRAND framework. Comparable licenses can reveal the likely outcome of a hypothetical *ex-ante* negotiation in respect to the licence negotiation in question.³⁴ Such approach may be applied in cases where any such prior license can be found and negotiation of which was concluded under sufficiently similar conditions in respect to the hypothetically construed *ex-ante* negotiation for licencing of the patented product in question and in such case the outcome of such hypothetical *ex-ante* negotiation is expected to be similar to the factual licensing negotiation which did take place in real.

Comparable licenses reflect an agreement of similarly situated patent holders and implementers. Comparable licenses thus provide an indication of one rate within the bargaining range between the willingness to pay of implementers and the willingness to accept of patent holders. If a truly comparable license can be found, and the comparable license was concluded *ex-ante*, the price of this license can be deemed to be a FRAND rate (even though there may be many other FRAND rates).³⁵

A federal circuit court of USA reaffirming its earlier decision in *Ericsson v. D-Link*³⁶ in case of *CSIRO v. Cisco*³⁷ held that, “where the licenses employed are sufficiently comparable, this method is typically reliable because the

³²Chyssoula Pentheroudakis & Justus A. Baron JRC Science for policy report, Licensing Terms of Standard Essential Patents, EUR 28302 EN, (2017).

³³Unwired Planet v. Huawei ([2017] EWHC 711 (Pat), 5 Apr. (2017)

³⁴Chyssoula Pentheroudakis & Justus A. Baron JRC Science for policy report, Licensing Terms of Standard Essential Patents, EUR 28302 EN, (2017).

³⁵Chyssoula Pentheroudakis & Justus A. Baron JRC Science for policy report, Licensing Terms of Standard Essential Patents, EUR 28302 EN, (2017).

³⁶*Ericsson v D- Link*, 773 F.3d 1201 at 1228 Fed. Cir., (2014).

³⁷*CSIRO v Cisco*, 809 F. 3d 1295 ,Fed. Cir. Dec. 3, (2015).

parties are constrained by the market's actual valuation of the patent.” The US circuit court previously also had held that otherwise comparable licenses are not inadmissible solely because they express the royalty rate as a percentage of total revenues, rather than in terms of the smallest saleable unit.³⁸

Even in cases in which SSPPU has been taken as the basis, several recent decisions of the US Federal Circuit has clarified that the preference given to the SSPPU does not preclude damages calculations based on comparable licenses - even if these licenses are based on end product prices.³⁹

As stated earlier too, in India, the Delhi High Court also relying upon the principles of US court’s decision in *CSIRO v. Cisco*⁴⁰ have applied the approach of comparable licence while fixing the royalty rate for a temporary measure in *Telefonaktiebolaget LM Ericsson v Mercury Elecs. & Another*.⁴¹

1.5.1.4 Georgia- pacific factors approach:

Georgia -pacific factors, which were enumerated in the case of *Georgia-Pacific Corp. v. United States Plywood Corp*⁴² case, is a list of fifteen factors including licensing royalties, comparable licenses, nature and scope of license, profitability of products, price and profit benchmarks etc. towards determining the damage. However, this referred decision did not address FRAND as such but it addressed the general context of damages, in which it reasoned that a “hypothetical negotiation,” between a “willing licensor” (the patent owner) and a “willing licensee” (the infringer), at the time the infringement began, may be used to determine reasonable royalty damages. It recognizes the relationship between the patent owner and the infringer as a factor to consider in assessing “reasonableness” in a patent damages case. In most of the cases, the Georgia-Pacific methodology attempts to set a

³⁸*Ericsson v D- Link*, 773 F.3d 1201 at 1228, Fed. Cir. (2014).

³⁹Chyssoula Pentheroudakis & Justus A. Baron JRC Science for policy report, Licensing Terms of Standard Essential Patents, EUR 28302 EN, (2017).

⁴⁰*CSIRO v Cisco*, 809 F. 3d 1295, Fed. Cir. Dec. 3, (2015).

⁴¹*Telefonaktiebolaget LM Ericsson v Mercury Elecs. & Another*, CS(OS) NO. 442(2013).

⁴²*Georgia-Pacific Corp. v. United States Plywood Corp.*, 318 F. Supp. 1116 (S.D.N.Y. 1970)

percentage royalty rate, which is then multiplied by the dollar amount of infringing sales to calculate the amount of “reasonable royalty” damages.⁴³ This approach which has been advanced as an analytical framework for assessing FRAND damages is often being used by different courts of U.S for such purpose.

1.5.1.5 Institute of Electrical and Electronics Engineers Standards Association(IEEE) policy:

In a recent development, in which IEEE has made some amendments in regard to their licensing framework and by doing such it become the first SSO which specifies methodologies to be used for determining FRAND rates in specific cases. Such developments also may help in finding solutions.

The amendments have recommended for considering three following non-mandatory factors for the determination of FRAND royalties:

- 1) the value contributed “to the value of the relevant functionality of the smallest saleable Compliant Implementation that practices the Essential Patent Claim,”
- 2) the value contributed “in light of the value contributed by all Essential Patent Claims for the same IEEE Standard practiced in that [smallest saleable] Compliant Implementation,” and
- 3) “Existing licenses” that “were not obtained under the explicit or implicit threat of a Prohibitive Order” and “otherwise sufficiently comparable” circumstances and resulting licenses.

The “fairness” aspect of FRAND imposes an overarching principle of regulating the effects of the various methods or tools applied for the calculation of reasonable royalty rates that are perceived as tipping the balance in favour of either the patent owner (i.e., EMVR) or the licensee (i.e., SSPPU, Georgia-Pacific factors). In other words, the assessment of the “reasonableness” of a royalty rate takes place in the shadow of the notion of

⁴³Chyssoula Pentheroudakis & Justus A. Baron JRC Science for policy report, Licensing Terms of Standard Essential Patents, EUR 28302 EN, (2017).

“fairness”. Defining fairness as a balance of interests among the stakeholders takes into account the overall market and standardization-specific dynamics, such as fragmentation of patent ownership (PAE, privateers), vertical integration of SEP holders which can be both- inventors as well as implementers, downstream channels, de facto monopoly of strong portfolio owners, etc. In this context, it could also be asked whether and to what extent welfare-improving considerations may impact the determination of FRAND.⁴⁴

1.6 It may be directed to interpret FRAND terms as a mutual commitment between the SEP holder and any prospective licensee under which they negotiate in good faith towards a license on reasonable terms and conditions that reflect the economic value of the patented technology.

1.7 SSOs may be directed to follow a standard policy of obliging SEP holders for not seeking an injunctive relief for a particular definite time period against a prospective licensee who agrees to accept specific licensing framework.

There are a number of cases, where the SEP holders go for an injunction on ground of Patent infringement, against the prospective licensee even when the negotiations were under way. Thus, this gives the SEP holders a commanding position in negotiations, which possibly could be exploited by SEP holder and lead to oppression of prospective licensee.

Such provisions exist in Europe where ⁴⁵ SEP holders are committed to not seek injunctions for a period of at least five years against any potential

⁴⁴Chyssoula Pentheroudakis & Justus A. Baron JRC Science for policy report, Licensing Terms of Standard Essential Patents, EUR 28302 EN, (2017).

⁴⁵Competition Policy Brief, Occasional discussion papers, Directorate General of the European Commission, June (2014).

Available at:
http://ec.europa.eu/competition/publications/cpb/2014/008_en.pdfhttp://ec.europa.eu/competition/publications/cpb/2014/008_en.pdf (last access on Nov. 5, 2017).

licensee of Telecom SEPs who agrees to accept a specific licensing framework. This licensing framework consists of a mandatory negotiation period of up to 12 months, and if the negotiation fails, a third party determination of FRAND terms by either a court, if one party chooses, or by arbitration if both parties agree.

1.8 SSOs may be directed to discourage through different means available at their disposal, for seeking injunctive relief by patent holders and should encourage exhausting all means including any arbitration process or any expert committee opinion before going before the court in cases where the prospective licensee is already in negotiation process.

SSOs should specify that before a SEP holder can seek injunctive relief, disputes over proposed FRAND terms and conditions should be first adjudicated at a court, agency, arbitration, or other tribunal that allows party to raise any related claims and defenses. SSOs should clarify in their policies that Injunctive relief conflicts with a commitment to license SEPs on FRAND terms and thus it should be rarely awarded. Those rare situations include conditions such as when a prospective licensee refuses to participate in or comply with the outcome of an independent adjudication of FRAND licensing terms and conditions and when a SEP holder has no other recourse to obtain compensation.

1.9 SSO's may be advised to encourage Patent pooling⁴⁶, where all the willing SEPs holders of a given Standard may be encouraged to form a

⁴⁶ WIPO-Patent pool can be defined as an agreement between two or more patent owners to license one or more of their patents to one another or to third parties, Patent pools and Antitrust – a comparative analysis, Mar. (2014).

Available at:

http://www.wipo.int/export/sites/www/ip-competition/en/studies/patent_pools_report.pdf (last access on Nov. 6, 2017).

“Patent Pool”⁴⁷ and have a common licensing procedure, with a single-window system for licensing for a particular Standard.

Such arrangement of integrating complementary technologies through a pool will provide a conducive environment for market and transparent mechanism for manufactures, reducing transaction costs, clearing blocking positions, and avoiding costly infringement litigation. Whereas it will be easier for a prospective licensee to obtain license, it will also provide a less time and cost consuming mechanism for patent holders leaving less space for dispute.⁴⁸

2. Recommendations for Statutory measures

2.1 Some of the following statutory measures also may be recommended to resolve the issues discussed in previous sections.

2.1.1 Statutory definition of “Standard” may be more generalised whereas “SSO” may be given statutory status towards creating a better regulatory mechanism in such regard.

However, Section 2(g) of The Bureau of Indian Standards Act, 2016⁴⁹ defines "Indian Standard" in inclusive terms⁵⁰ but such definition needs to

⁴⁷Patent pool royalty rates serves as good indicators of appropriate levels for FRAND royalty rates. While a patent pool is based on a self-selection process and thus includes (1) rates charged by the pool and (2) “sharing rule” by which the pool proceeds are divided among patent-holder. Thus, the holders of especially valuable patents are more likely to elect not to participate in the pool. Patent pool is suggested to be appropriate for low-value rate patents.

⁴⁸ The patent pool at the same time must ensure that it works competitively and the patents in the pool must be essential, non- substitutable and the right to license the patent shall lie in the hands of the owner. (As suggested under the Antitrust Guidelines for the licensing of Intellectual Property, U.S. Department of Justice and Federal Trade Commission, April 6, 1995, Last, updated on Jan. 12, (2017).

⁴⁹The Bureau of Indian Standards Act, (2016).

Available at:

<http://www.indiacode.nic.in/acts-in-pdf/2016/201611.pdf> (last access on Oct. 28, 2017).

⁵⁰The standard (including any tentative or provisional standard) established and published by the Bureau, in relation to any article or process indicative of the quality and specification of such article or process and includes - any standard recognised by the Bureau under

be made more generalised which may include standards created by any agencies including private bodies and standards of every field. Further, placing a definition or any statutory status to SSO (including private and public) may help in regulating their activities.

In such regard following few definitions of standards adopted and proposed by different international bodies and institutions may be observed for illustrative purpose:

ISO/IEC Guide 2: 2004 defines Standards as:

“Document, established by consensus and approved by a recognized body, that provides, for common and repeated use, rules, guidelines or characteristics for activities or their results, aimed at the achievement of the optimum degree of order in a given context.”⁵¹

Under the World Trade Organisation (WTO) system WTO Agreement on Technical Barriers to Trade Standard has been defined as:

“Document approved by a recognized body, that provides, for common and repeated use, rules, guidelines or characteristics for products or related processes and production methods, with which compliance are not mandatory. It may also include or deal exclusively with terminology, symbols, packaging, marking or labelling requirements as they apply to a product, process or production method.”⁵²

clause (b) of section 10; and any standard established and published, or recognised, by the Indian Standards Institution and which is in force immediately before the date of establishment of the Bureau”

The Bureau of Indian Standards Act, (2016).

Available at:

<http://www.indiacode.nic.in/acts-in-pdf/2016/201611.pdf> (last access on Nov. 5, 2017).

⁵¹ ISO/IEC Guide 2:2004

Available at: http://www.iso.org/sites/ConsumersStandards/1_standards.html#section1_1

⁵²Agreement on technical barriers to trade, WTO

Available at: https://www.wto.org/english/tratop_e/tbt_e/tbt_e.htm (last access on Nov. 4, 2017).

2.1.2 The Section 108 of the Patent Act, 1970, may be suitably amended towards discouraging injunction as a relief.

Using injunction as a weapon to force manufacturers, their own terms by Patent holder has not been very uncommon in practice in different jurisdictions. However, any such situation may not be conducive for a healthy market and avoiding such parties having equal bargaining positions. In case of any practice of granting injunctions with higher frequency may make the situation tilted towards patent holders and will adversely affect the interest of manufactures.

However, in Judicial practice since the American Cyanamid case⁵³ four factors test⁵⁴ is being exercised to testify the case of plaintiff towards granting of injunction in major jurisdictions including India, but a statutory status to the same may bring some legal equilibrium and certainty in Law.

2.1.3 In regard to the territorial status of the Principle of Exhaustion of patents (i.e principle of National Exhaustion or International Exhaustion) an explanatory note may find a statutory status under Section 107-A of Patent Act, 1970 towards demystifying the position of law in such regard.

This exercise may help such telecom manufactures in India who are involved in process of bringing different components from different parts of the world.

2.1.4 Section 146 of Patent Act, 1970 read with Rule 131 on working of patents for Form-27, may be amended to include a new column in

⁵³American Cyanamid Co v Ethicom Ltd [1975] AC 396

⁵⁴ Four factors test or three (+ public interest) factors requires the plaintiff to prove, a prima facie case, the balance of convenience in favour, irreparable injury which cannot be compensated in monetary terms and public would not be disserved by a permanent injunction.

Form-27, which may require the Patent holder to declare if their patent forms a part of any standard and in case of affirmative answer – the name of SSO and corresponding standard of which it is a part.

2.1.5 Finding the option of exercising the power of central Government to grant Compulsory licencenses⁵⁵, in case of SEPs of telecom equipment less viable, practical possibilities of exercising the powers of Government given under Section 102 and 103 of the Patent Act, 1970 in regard to the Acquisition and Revocation of Patents may be looked into to keep the deterrent power alive for any extreme and unforeseen situation.

2.1.6 A regulatory body which can regulate the activities and working of all SSOs including public and private may be formed to regulate the system in effective manner, in such regard a suitable statutory provision may be legislated.

2.1.7 Providing a statutory status towards maintaining a Public depository of license and assignment of patents by the SSO with some role of IPO may find a place towards increasing transparency in the market.

3. Submissions before Courts

3.1 Appropriate submission may be made before higher courts for their consideration of granting injunctions only as last resort. In such regard creation of a platform for interaction of judges, practicing lawyers along with academia and research bodies may provide symbiotic result.

⁵⁵Section 84, Patent Act, 1970

While recourse to injunctions is a possible remedy for patent infringements, such conduct may be abusive where SEPs are concerned and the licensee is willing to take a license on FRAND terms. In these circumstances, the seeking of injunctions may distort licensing negotiations and impose unjustified licensing terms on patent licensees, with a negative impact on consumer welfare.⁵⁶

Different courts of different jurisdictions and legal scholars have been under debate whether, as matter of contract interpretation, the FRAND contract waives an SEP holder's right to seek an injunction. Lemley & Shapiro⁵⁷, for instance, argue that, by making a FRAND commitment, an SEP holder has conceded that damages would suffice to compensate the SEP holder for the infringement of its SEPs; given the availability of monetary damages, the SEP holder will not suffer irreparable harm from the infringement of its SEPs and can thus not meet the requirements for obtaining an injunction, as set out by the US Supreme Court in *eBay Inc. v. MercExchange*.⁵⁸

In *Microsoft v. Motorola*, the request for preliminary injunctions was deemed improper because, in light of its commitment to license on FRAND terms, the SEP holder failed to show it had suffered an irreparable injury or that remedies available at law were inadequate: "Whatever the appropriate method of determining the RAND licensing rate, it could well be that retrospective payment at the rate ultimately determined and a determination of the future rate, not an injunction banning sales while that rate is determined, is the only remedy consistent with the contractual commitment to license [...] standard-essential patents."⁵⁹

⁵⁶ EC Press Release in the case of *Motorola v Apple*, 6 May (2013).

⁵⁷Mark A. Lemley & Carl Shapiro, A simple approach to setting reasonable royalties for standard-essential patents, (2013).

Available at:

<http://idei.fr/sites/default/files/medias/doc/conf/sic/seppapers2013/papershapiro.pdf>
(last access on Nov. 2, 2017).

⁵⁸*eBay Inc. v MercExchange*, L.L.C., 547 U.S. 388 at 391 US Supreme Court (2006).

⁵⁹*Microsoft Corp. v Motorola, Inc.*, 696 F.3d 872 at 885, 9th Cir. (2012).

After the decision of the Court of Justice of the European Union (CJEU) in *Huawei v. ZTE*⁶⁰ injunctions are no longer granted automatically without further consideration of the parties' conduct in the light of their relevant bargaining power in European Union. Instead of Injunction as a relief, European courts have more focused on defining the conditions under which the conduct of the negotiating parties is incompatible with their FRAND obligations. Against this background, policies that support market mechanisms and conditions conducive to bilateral negotiations and their proper conduct as early on as possible can enhance clarity around the definition of FRAND and restore legal certainty in the field of SEPs. In *Motorola Mobility*⁶¹ and *Samsung*⁶², the European Commission prohibited injunctive relief on the premises that it would provide the SEP holder with the leverage to extract hold-up, resulting in an imbalance between parties. It was deemed an abuse of a dominant position prohibited by EU antitrust rule to seek injunctions on the basis of SEPs.⁶³ At the same time, the jurisprudence of the CJEU and national courts in Europe increasingly leverage the award of injunctive relief against unwilling licensees as a means of strengthening bilateral negotiations as the principal forum for determining FRAND licensing terms. The availability of injunctive relief for SEP owners is more restricted in other jurisdictions, including the US, Japan and China. Especially in the US, where injunctions are generally considered inappropriate when a patent owner is committed to licensing his patents, the courts play a more active role in determining the licensing terms when negotiations come to an impasse.⁶⁴

However, Indian courts have been following the three factor (or four factor after inclusion of Public interest as an another factor) test for granting an

⁶⁰CJEU, Case C-170/13, Decision of 16 July 2015, Huawei Technologies Co. Ltd v. ZTE Corp., ZTE Deutschland GmbH, (2015).

⁶¹European Commission, DG Competition, Decision of 29 April 2014, C (2014) 2892 final, Motorola Mobility Inc., (2014).

⁶²European Commission, DG Competition, Commitment Decision of 29 April 2014, C(2014) 2891 final, Samsung Electronics Co., Ltd., et. al. (2014).

⁶³ Commitment Decision of 29 April 2014, C(2014) 2891

⁶⁴Chyssoula Pentheroudakis & Justus A. Baron JRC Science for policy report, Licensing Terms of Standard Essential Patents, EUR 28302 EN, (2017).

injunction in case of civil suits including Patent suits. Although patent suits require application of specific standards for determination of the existence of the said factors⁶⁵, most of the judgements of courts have not testified the case of plaintiff on all these three or four parameters, at least in their speaking orders, however each of which are sine qua non towards granting a relief of injunction.⁶⁶

Some jurisdictions allow a defendant implementer in patent infringement proceedings to raise an “antitrust defences”, claiming that an injunction based on patent infringement is unwarranted as the SEP holder would be required, under competition law, to grant a (compulsory) license to the implementer on FRAND terms. Such an antitrust defence is also available under the “Orange Book” case law, if some conditions are fulfilled⁶⁷ as the German Federal Supreme Court in a decision,⁶⁸ held that the enforcement of the claim to an injunction constitutes an abuse of a dominant market position and breach of good faith.

4. Recommendations regarding Dispute resolution and other issues

4.1 Different models of Alternate Dispute Resolution mechanism including mediation or Baseball Arbitration⁶⁹ or some other suitable approach of arbitration, or combination of them may be adopted towards settling related disputes which are more in private nature,

⁶⁵Prof. T. Ramakrishna, An India Perspective on Establishing a Prima-Facie Case in Patent Suits, Oct. (2017)

Available at: https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3047057 (last access on Nov. 1, 2017).

⁶⁶Prof. T. Ramakrishna, An India Perspective on Establishing a Prima-Facie Case in Patent Suits, Oct. (2017)

Available at: https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3047057 (last access on Nov. 1, 2017).

⁶⁷Chyssoula Pentheroudakis & Justus A. Baron JRC Science for policy report, Licensing Terms of Standard Essential Patents, EUR 28302 EN, (2017).

⁶⁸ Case no. KZR 39/06, Orange Book, Decision of May 6, (2009).

⁶⁹Professors Mark Lemley and Carl Shapiro, from Stamford and the University of California respectively, have argued that baseball arbitration is the ideal method of dispute resolution for resolving FRAND disputes. Their argument is that parties who are bound to engage in arbitration will render much of the associated FRAND disputes (such as antitrust) moot and the amount of litigation consequently will be greatly reduced.

and are affecting private parties only towards finding quick and amicable solution at lower cost. In such regard, regulatory measures may be needed.

However, in situations where public interests are involved or for which law has stipulated any penal provision (such as via a finding of “unwillingness”), option of choosing such forum to any party must not be provided as it will be contrary to the Indian legal framework as well as international norms. Therefore, while bringing ADR approach for such dispute settlement a precaution must be taken in such regard.

On the other hand, where both parties voluntarily (i.e., without threat of penalty such as an injunction) are agreed for ADR and such issue does not fall under the domain of public interest, multiple of avenues and options may be designed to assist a fair and efficient mediation or arbitration process. In such regard some basic procedural and substantive aspects which need to be taken care of as essential elements may be considered as follows:

Voluntary Mediation by Neutral Mediators: As noted, the essential requirement for ADR is that it be voluntary. The mediation approach may be preferred in comparison to the arbitration. There are few options of forums such as ICC and similar international bodies available for such disputes settlement under their framework, which may be looked into. Those bodies have developed extensive rules, procedures and networks of arbitrators; seeking to replicate such existing arbitration infrastructure could be unnecessary and inefficient. Such mediations might involve former Indian judges or experienced practitioners who could assist the parties in achieving a resolution. In all cases, it must be ensured through some mechanism that mediators are truly neutral, and that any decision-making approach does not favor one party over the other.

Fair Processes for Obtaining Evidence and Disclosure of Contentions: It can be impossible to fairly evaluate FRAND royalties without access to otherwise

“confidential” information of the other party. As just one example, parties will need to examine prior licenses to assess the “non-discrimination” aspect of FRAND. Likewise, parties will need to have access to the other party’s contentions and expert analysis that will serve as the justification for its proposed FRAND rates. Any ADR process should ensure that each party will have full access to discovery from the other party, and that the parties are required to timely divulge their technical and expert analysis relevant to FRAND positions. In many cases, there should also be procedures for protection of any technical information or other trade secret materials that might be exchanged, such as via an effective Protective Order; but ADR should not be entirely secret, or interfere with an appropriate level of transparency regarding FRAND disputes. For example, if a patent is found by an arbitrator to be invalid or not essential, that fact should become public so that a patent holder cannot continually re-assert an invalid patent against new parties without disclosing the prior invalidity finding.

Fair Right to Raise Claims and Defenses: Just as ADR must remain voluntary, to serve as a useful option it must be fair. It cannot be the case that ADR procedures would purport to establish FRAND rates without allowing for assertion of relevant claims and defenses by each party. For example, it cannot be assumed (just because the patent holder so claims) that a potential licensee actually infringes the patents asserted, or that the patents are actually essential to the relevant standard. Likewise, it cannot be assumed (just because the potential licensee so claims) that a particular patent is invalid.

Opportunity for Parties to Wave Rights or Streamline Proceedings on a Flexible Basis: Of course, parties may in some cases decide to waive certain of their rights, claims or defenses. Nothing in this submission suggests that an ADR process would not have the flexibility to accommodate parties that wish to streamline the proceedings on a voluntary basis. ADR processes should be designed to accommodate such voluntary agreements. For example, parties in a certain dispute might decide to agree to base any royalty

analysis on a “proud list” or other “sampling” of the asserted portfolio, rather than challenging specific patents. Or parties might decide to agree in advance of particular methodologies to evaluate royalties, such as consideration of royalty stacking or a cumulative aggregate rate for the standard. In any event, an ADR process may insist upon foundational “default” protections for the parties, while still retaining the flexibility to adjust processes on a voluntary basis in response to the particular needs and wishes of the parties involved.

4.2 A permanent Independent Committee of experts having proper immunities in regard to their exercises may be established for determination of FRAND terms in case of any dispute between SEP holder and prospective licensee.

Determination of FRAND terms has been a major concern in regard to licence negotiations, a quick and cost effective dispute settlement of which will provide conducive environment in such regard. Such disputes landing into courts, consume time and money which may not be suitable for ICT market where the speed of change in technologies are at higher end. An independent body of experts may provide a better forum towards such dispute settlement.

The proposed Committee of Experts for determination of FRAND may be an independent body, similar to the U.S. Copyright Royalty Board⁷⁰. Such Committee of Experts may be a standing body similar to Intellectual Property Appellate Board.

⁷⁰ Rate-setting authorities exist in a range of industries and settings. In the United States, state public utility commissions set rates for regulated monopoly utility services such as electricity and natural gas. Outside the utility setting, the U.S. Copyright Royalty Board is authorized by Congress to “make determinations and adjustments of reasonable terms and rates of royalty payments” relating to broadcast and transmission of musical works, making and distribution of sound recordings, satellite television broadcasts and digital audio recording devices.

4.3 The Government of India may take initiatives towards encouraging or establishing continuous research with standing research teams from academia regarding development and maintenance of legal and regulatory ecosystem in India, which can provide solutions to any unforeseen functional obstacle at real time, which is likely in case of change in technologies at faster pace.

Legal and regulatory framework of the country requires, maintaining pace with the changing nature of technologies, which can respond according to the needs of market while looking other aspects along with national interest. When the pace of change in technology is too high sporadic and eventual research may fail to respond the dynamic condition prevalent, in such regard some continuous dedicated research will provide solutions at real time and will be helpful in maintaining a better ecosystem for market.

4.4 National Information Technology Fund may be established towards providing assistance in royalty payments and other related issues of Micro, Small and Medium Enterprise (MSME) regarding SEP's under certain mechanism towards developing future manufacturers in India.

Enterprises of MSME sector having less fund and scarce resources at their disposal may not sustain the strategic market mechanism of foreign players and patent holders, therefore financial and regulatory assistance may be provided to them under certain fixed mechanism which will surely help in generating manufacturers for future and a better competitive market within country.

4.5 Infrastructure development and increase in effective efficiency of the functioning abilities of IPO (Indian Patent Office) may be enhanced.

The functioning abilities of IPO requires efficiency enhancement and to be more streamlined so that along with other benefits information which may be shared between SSO and IPO (as has been proposed in this report) may be well handled and it can ensure the reliance of market players over it in such regard. Under similar such arrangement EPO shares information with three SSOs which are ITU, ETSI, IEE-SA.