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Munich, November 10, 2017

By e-mail: arvind@traf.gov.in, bharatgupta.traf@gmail.com

Consultation Paper on Promoting Local Telecom Equipment Manufacturing

Dear Mr Shri Arvind Kumar,

We express our thanks for the opportunity to provide a contribution regarding the Telecom Regulatory Authority of India Consultation Paper on Promoting Local Telecom Equipment Manufacturing. We provide these comments based on the official English document issued on 18 September 2017.

The Fraunhofer-Gesellschaft (Fraunhofer)¹ is Germany's and Europe's largest industrial research organisation and has been actively contributing to international dialogue on the relevance of good governance in standardisation and the importance of intellectual property law in the context of high-technology strategies and innovation ecosystems.

¹ Fraunhofer undertakes applied research of direct utility to private and public enterprise and of wide benefit to society. With a workforce of over 24,000 and an annual research budget of €2,2 billion, the Fraunhofer-Gesellschaft is Europe's largest organization for applied research, and currently operates a total of 69 institutes and research units. The organization's research focuses on the needs of people in the areas of healthcare, security, communication, mobility, energy and the environment. Fraunhofer's international sites and its representative offices act as a bridge to the regions of greatest importance to scientific progress and economic development. See also <http://www.fraunhofer.de/en/about-fraunhofer/mission.html> and <https://www.fraunhofer.in/> for specific details of Fraunhofer's activities in India.

Munich, November 10, 2017

Fraunhofer has longstanding and extensive cooperation ties with India and Indian enterprise. This includes activities as a developer and holder of all types of intellectual property, including standard essential patents and other forms of intellectual property which have the potential for global adoption. From these activities, Fraunhofer has participated in many licensing programs developed to implement world-class, global technology solutions to ultimately serve societal benefit and advancement.

We hope that the **attached** comments are of assistance to your consultation process. Fraunhofer would welcome the opportunity to further contribute to this important discussion, as and when the opportunity arises.

We would be happy to respond to any questions you may have regarding the attached comments, and remain in dialogue with the Telecom Regulatory Authority of India on these important issues.

Yours sincerely



Stefanie Mielert
Head, Corporate Governance
Fraunhofer-Gesellschaft

Enclosed:

Attachment 1: Comments of the Fraunhofer-Gesellschaft on the Consultation Paper on Promoting Local Telecom Equipment Manufacturing dated 18 September 2017.

**Comments of the Fraunhofer-Gesellschaft
on the Consultation Paper on Promoting Local Telecom Equipment Manufacturing dated 18 September
2017 (Consultation Paper)**

We commend the TRAI for its national and international engagement with a broad range of stakeholders regarding appropriate measures to help ‘enable the Indian telecom industry to transition from an import-dependent industry to a global hub for manufacturing’¹.

The Fraunhofer Gesellschaft’s (Fraunhofer) comments are respectfully submitted with the following structure:

1. General Comments
2. Responses to selected questions posed in the Consultation Paper
3. Detailed comments on selected statements in the Consultation Paper.

1. General Comments

1.1 Approach of the Document

We read with interest the TRAI’s considerations regarding the establishment of the Indian local telecom’s desire for enhanced capacity to manufacture telecommunications equipment. The following high-level comments are provided.

1.1.A TRAI objectives should be considered in light of overall Indian Government initiatives regarding innovation

We respectfully consider that the direction of this paper should be altered somewhat, so that all government strategies and policies supporting India’s enhancement of its innovation cycle in the telecom equipment manufacturing sector are borne in mind. These are noted in the paper as requiring ‘sustained heavy investments on Research and Development (R&D)’², and cannot be considered as being distinct or separate to the stated aims set out in the Consultation Paper.

Fraunhofer encourages cross-departmental or –ministerial discussions, so that the Indian Government’s initiatives are consolidated in a synergistic manner. For example, this could entail bringing together discussions on both the objectives and initiatives being led

¹ TRAI Consultation Paper, page 7.

² See Consultation Paper, at page 8.

by the Department of Telecom, Central Board of Customs and Excise, the Ministry of Finance, and the Department of Science and Technology.³

Regarding incentives mentioned in the TRAI Consultation Paper, there is certainly an interrelationship between government revenue (e.g. imposition of taxes, duties and tariffs), and the funding of sustainable, long-term innovation systems.⁴ To this end, any exemptions or reduced taxes, duties or tariffs applicable to both domestic and foreign companies should be carefully considered.⁵

We further note that while it was identified that the local telecom equipment manufacturing differs from other activities in the telecoms sector, the causes of this situation were not thoroughly studied. Establishing causality is one of the most effective ways to constructively address an issue. Certain developments were identified, such as that 'Indian manufacturers find it difficult to meet the pace of rapidly changing technologies', however the reason for it and specific cross-departmental or -Ministerial actions that can be taken to change it were not considered.

1.1.B The Telecom industry ecosystem includes R&D

An immediate observation is that the paper – while it focuses on manufacturing capacity – also makes reference to investment in innovation and a return from such investment, both by government and industry. This appears to have been done separate to the main discussion, as R&D is not listed as part of the Telecom industry ecosystem⁶. In Fraunhofer's experience, both basic and applied research are integrally linked to industry competitiveness and strength, and so should be formally observed as part of any industrial ecosystem. The importance of R&D appears to be indirectly referred to in the paper, which notes the positive competitive impact of rapid technological developments in the areas of 2G, 3G, 4G and LTE etc.⁷ However, the science- or technical-based efficiencies and sustained long-term growth which come along with science and technology investment and appropriate return on that investment are different to the (respectfully incorrect) assumption that efficiencies and sustained growth can be achieved through government regulation of the licensing of standard essential patents, whether licensed on voluntary FRAND or other terms.

The Consultation Paper's observation of a 'grim state of innovation in the segment of telecom equipments'⁸ automatically leads one to conclude that there is a need for investment in science and technology, including targeted R&D – considered to be the backbone of long-term sustainable growth for economies.⁹

³ See Consultation Paper, Appendix 1.

⁴ See Consultation Paper, at page 6.

⁵ See Consultation Paper, at page 10.

⁶ See Consultation Paper, at page 4.

⁷ See Consultation Paper, at page 5.

⁸ See Consultation Paper, at page 11.

In this respect, the paper is not addressing R&D or intergovernmental strategies at all, thus not considering the importance of having relevant R&D undertaken. Rather, we duly note that the Consultation Paper focuses strongly on the supply side and somewhat overlooks the importance of the demand side of the market. This may have also diminished the importance of consumer choices in the competitive market. Consumer choices and preferences may have contributed to the explanation of the observed trends in India's local telecom equipment manufacturing (and given the cases cited in the Consultation paper, this is taken to refer to both mobile handsets and infrastructure).

1.1.C TRAI objectives should be considered in light of the legal and governance framework for international business in the telecommunications sector – and standard essential patents

Fraunhofer urges the TRAI to recognise that, in terms of the legal and governance ecosystem, the Indian framework is appropriately addressing any matters arising in relation to licensing and the conduct of parties involved in such negotiations.¹⁰

Any government interference with an international market will likely have a direct negative impact on foreign direct investment, and decrease opportunities for Indian researchers and companies to cooperate in international technical projects, and international business.

Key to this, is that all foundations relating to international technical cooperation, and international trade, remain intact within the domestic setting. Experience of the Fraunhofer-Gesellschaft (Fraunhofer) and interdisciplinary studies in law and economics of innovation strongly point to a fundamental proposition: to support an innovation cycle, a government must recognise the specific components of the said cycle and support their good development by providing a conducive legal and economic framework.

⁹ See <https://www.gtai.de/GTAI/Navigation/EN/Meta/Press/press-releases,t=germanys-growing-future,did=1814346.html>, where is noted that 'strong investment in R&D [...] is a sign [...] not only [being] concerned with the current bottom line, but also future ones'.

¹⁰ See Indian High Court decisions of *Ericsson v. iBall* I.A. No.17351/2015 in CS (OS) 2501/2015, *Ericsson v. Intex* I.A. No. 6735/2014 in CS(OS) No.1045/2014. For Europe, see *Huawei Technologies Co. Ltd v ZTE Corp., ZTE Deutschland GmbH* (Case C-170/13, 2015) (*Huawei v. ZTE*). For European Member State court decisions interpreting *Huawei v. ZTE*, see German decisions such as *One-Red v ASUS and Acer* LG Mannheim 29.01.2016, *St Lawrence v. Vodafone* LG Düsseldorf, 31.03.2016, *Sisvel v. Haier* LG Düsseldorf 03.11.2015 and 13.01. 2016, *St Lawrence v. Deutsche Telekom and HTC*, LG Mannheim 27.11. 2015, *NTT DoCoMo v. HTC* LG Mannheim 29.01.2016, or the English decision of *Unwired Planet International Ltd v Huawei Technologies Co Ltd & Anor* [2017] EWHC 1304 (Pat) (07 June 2017). For the USA, see *Ericsson Inc v. D-Link Systems Inc* (773 F. 3d 1201 Fed Circ 2014); *CSIRO v. Cisco Systems* (809 F.3d 1295 Fed Cir 2015); *Core Wireless Licensing S.a.r.l v. LG Electronics, Inc. and LG Electronics Mobilecomm U.S.A., Inc.* (31 August 2015) Case No. 2:14-cv-912-JRG; and *SRI International Inc. v. Cisco Systems Inc.* (9 May, 2016) Civ. No. 13-1534-SLR.

To the extent that the legal framework is considered, supporting innovation involves considering international technological progress, and international treaties which provide the broad yet robust framework – in turn translating through to national laws and jurisprudence important for the preservation of fundamental rights and obligations for government, industry and consumers.

Importantly, for the legal framework to support the innovation cycle comprehensively, it must provide adequate mechanisms for all stages of the cycle. Here, not only support for R&D investment, mechanisms for educating best talent, and other tools considered in this Consultation Paper to provide for innovation inputs are of essence. Equally important is the coherent and robust legal framework, which enables inventors and innovators to commercially benefit from their innovation outputs. In high-technology sector, such as the telecommunications, this includes internationally coherent standardisation processes and good governance rules for patents (a subset of which are standard essential patents), commercialisation of IP, and their protection and defence at law through litigation.

The Consultation Paper fails to acknowledge that standard essential patents are patents, which are a type of intangible property. This is recognised by jurisdictions all over the world. The US decision of *eBay*¹¹ (2006) determined that a patent is property, and subject to the normal laws of property. This is also recognized in Europe¹² and India¹³, and at the international and European fundamental rights level¹⁴.

The paper also fails to acknowledge that any IP incorporated in products or services will impact on the value of the services or products, and is a legitimate business cost necessarily allocated to the producers of products and services so incorporating third party IP.

The Consultation Paper incorrectly asserts that the holder of a standard essential patent is obliged to provide a FRAND undertaking. Participation in a standard development process is voluntary, as is the giving of any FRAND undertaking.

The Consultation Paper, citing a competition law case brought by local manufacturers of handsets, further wrongly asserts that 'the calculation of royalty on FRAND remains a challenge and is the bone of contention in the ongoing SEP disputes'.¹⁵ Competition law is not a tool for policing the licensing of standard essential patents.¹⁶

¹¹ *eBay Inc. v. MercExchange, L.L.C.*, 547 U.S. 388 (2006)

¹² *Huawei v. ZTE*

¹³ See *Ericsson v. iBall* I.A. No.17351/2015 in CS (OS) 2501/2015, *Ericsson v. Intex* I.A. No. 6735/2014 in CS(OS) No.1045/ 2014.

¹⁴ See TRIPs, and Article 17 of the Charter of Fundamental Rights of the European Union, for example.

¹⁵ See Consultation paper, at page 12.

¹⁶ See <http://globalcompetitionreview.com/article/1149857/us-doj-official-antitrust-shouldn%E2%80%99t-interfere-in-seps-if-other-laws-are-available>.

Coherence at a global level is achieved by international co-ordination within the international standardisation bodies, such as United Nations' ITU and ETSI, specifically in the telecommunications sector. It is worth noting that FRAND commitments in ETSI and ITU are global and publicly accessible.

Fraunhofer respectfully requests that the TRAI does not take a false premise as the basis for policy intervention. The licensing of standard essential patents works well in the main. While there have been a small percentage of negotiations which have ended up in court, most parties to a negotiation act in good faith and conclude an appropriate licence. This is good for business relations, less costly for business, and in the end, allows all to focus on delivering what is of benefit to society and consumers.

The point here is good faith negotiations as part of an international commercial transaction – both parties are expected to share sufficient information with each other during the negotiation of a licensing agreement so that a real negotiation can take place within a reasonable time frame.

The relevant parties are the patent owner or its agent, and the entity seeking to implement a standard which practices the relevant standard essential patents owned by the patent owner. Government policy should not dictate an attach point for royalties, and should not prescribe which entity is to seek a licence. To do so would interfere with market dynamics and the conduct of international business.

The suggestion that there needs to be a formula or mechanism to determine the basis on which standard essential patents be licensed on FRAND is rejected. Such an approach has been rejected as untenable¹⁷, as there is no one methodology for valuing IP, and to attempt to foster a 'one size fits all' on IP owners would result in government regulation overriding the market and its dynamics. This is not considered to be conducive to a competitive economy.

European and Member State law also reflects this position: The European TTBER¹⁸ states that it is legitimate to calculate royalties based on a final product base where licensed technology relates to an input incorporated into a final product. The EU Guidelines on the application of Article 101¹⁹ provide that parties are able to take into account a number of elements for determining license fees including the incentive to innovate, sunk investments and R&D costs²⁰.

¹⁷ See *CSIRO v. Cisco*, at 1303.

¹⁸ Commission Regulation (EU) No 316/2014 of 21 March 2014 on the application of Article 101(3) of the Treaty on the Functioning of the European Union to categories of technology transfer agreements (TTBER)
Official Journal L93, 28.03.2014, p.17-23

¹⁹ Communication from the Commission — Guidelines on the application of Article 101 of the Treaty on the Functioning of the European Union to technology transfer agreements (Guidelines)
Official Journal C89, 28.03.2014, at pp 3-50.

²⁰ See the Guidelines to Article 101, at paragraphs 8-9.

In light of the above, Fraunhofer calls on the TRAI to follow the established international practice and to refrain from providing any indication as to the royalty calculation base.

If one has regard to jurisdictions around the world, it has been consistently stated that there is no one methodology to be employed to calculate royalties.

In the US, it has been expressly stated that there is no set of factors that serve as a talisman for royalty rate calculations.²¹ To the extent that one court should mirror the analysis of other cases such as *Innovatio* or *Microsoft*, the US Court of Appeals for the Federal Circuit has specifically rejected that argument.²² It has further noted that factors for consideration 'may also need to be adapted on a case-by-case basis depending on the technology at issue.'²³

Concluding on the issue of RAND in *Ericsson Inc. v. D-Link Inc. et al*, the US Court of Appeals for the Federal Circuit held:

*We believe it is unwise to create a new set of [...] factors for all cases involving RAND-encumbered patents. Although we recognize the desire for bright line rules and the need for district courts to start somewhere, courts must consider the record [...] and should avoid rote reference to any particular damages formula.*²⁴

In Europe, the UK Court of Appeals recognised in *Unwired Planet v. Huawei*²⁵ the same principle – there is no prescribed way of calculating royalties and parties are free to negotiate the rate, in good faith.

In addition, a recent study demonstrates that patent holders in the smartphone value chain do not exercise any meaningful monopoly power to raise prices.²⁶

²¹ *Ericsson Inc. v. D-Link Inc. et al*, at *47 - 50.

²² *Ericsson Inc. v. D-Link Inc. et al*, at *49.

²³ *Ericsson Inc. v. D-Link Inc. et al*, at *48.

The Court expressed 'no opinion on the methodologies employed in these district court cases (when determining a royalty award) – which may yet come before this court – or in their applications to the facts at issue there. The facts in those cases, and the decision-makers involved, differ from those at issue here (in *Ericsson Inc. v. D-Link Inc. et al*). We address only the record before us and what a jury must be instructed when RAND-encumbered patents are at issue and the jury is asked to set a RAND royalty rate.' See *Ericsson Inc. v. D-Link Inc. et al*, footnote 8 at *50.

²⁴ *Ericsson Inc. v. D-Link Inc. et al*, at *50.

²⁵ *Unwired Planet International Ltd v Huawei Technologies Co Ltd & Anor* [2017] EWHC 1304 (Pat) (07 June 2017)

²⁶ Galetovic, A., Haber, S., Zaretski, L., 'Is there an anti-commons tragedy in the smartphone industry?', Hoover IP2, Working paper series No. 17005, revised 1 August 2017. Available at: <http://hooverip2.org/working-paper/wp16011/>.

Fraunhofer strongly urges the TRAI to acknowledge the norms and principles of contract negotiation reinforced by the Courts in the United States, India and Europe, as discussed above, and thus, to refrain from providing guidance with respect to royalty calculation. To do so could very well distort sectors operating in the IoT-based markets.

The proposed other means of disrupting the licensing of standard essential patents (creation of a licensing portal, and disrupting the commercial practice of having non-disclosure agreements (NDA) in place) are not considered valid, feasible or relevant to the discussion regarding the licensing of standard essential patents. The FRAND commitment applies to all parties to a negotiation, and all are expected to negotiate in good faith. Having an NDA in place is considered normal commercial practice, endorsed by courts around the world.²⁷

The Indian legal system is robust. Fraunhofer urges caution on any change to its intellectual property laws, access to justice, or commercial / competition laws, both local and those deriving through the operation of international treaties, law and norm.

To adopt any changes suggested in the Consultation Paper regarding the creation and licensing of standard essential patents would certainly have a negative impact on the Indian Government's investment and achievable return on investment in the research and development, such as with the Eight Telecom Centres of Excellence referred to in the Consultation Paper.²⁸

1.2 TRAI objectives should be considered in light of international technical cooperation for the development of international standards

It is queried whether any country participating in international standard development and the international telecommunications sector is able to become 'self-sufficient'. In the context of this paper, the stated aim to achieve 'self-sufficiency in telecom equipment manufacturing'²⁹ also needs to consider that this is an international industry, and that until Indian companies begin producing IP through R&D there will be a need to licence in IP.

We also note that the document appears to carry a perceptible bias against foreign manufacturers of telecommunications equipment. This causes the whole document to give a strong impression of subjectivity.

Indeed, the section of the Consultation Paper focusing on standard essential patents carries misleading, and in certain cases, incorrect or unsubstantiated information. We also respectfully protest against the use of several concepts, such as in the case of

²⁷ See, for example, the March 2017 decision of the Beijing IP Court in *Iwncomm v. Sony*. See also the UK decision of *Unwired Planet v. Huawei*.

²⁸ See Consultation paper, at page 27.

²⁹ See Consultation Paper, at page 6.

royalty determination, without proper qualification and reference to appropriate laws and jurisprudence. Please see further Detailed Comments in Part 3 **below**.

A final high-level remark regarding the choice of language and concepts for the Consultation Paper. Telecommunications cannot be said to be a necessity in the same way as clean water, food and shelter are necessities³⁰. It is not understood why the Consultation paper currently adopts such a position.

1.3 The New Telecom Policy should encourage industry responsiveness to changing markets and technology

While preferential market access to domestic manufactured products may provide certainty regarding local participation in the market, such an approach appears to have had time-bound success before. On its face, this appears to be due to industry not adapting to market change in what is known to be a dynamic sector³¹, relying on the government mandate to include local manufacturing companies in the procurement of telecommunications equipment.³² As noted in the Consultation Paper, '[m]ajor telecom equipment manufacturing companies of the world are [...] rolling out equipments manufactured as per the latest standards and quality to maintain their relevance [...] in the sector'³³. Although the aim at 'achieving self-sufficiency in telecom equipment manufacturing' is a noble aim, it is noted that telecom equipment manufacturing is an international industry, and any protectionist policies adopted could have a negative impact on local industry competitiveness internationally, and run contrary to aims at increasing FDI in India.³⁴

The link between local manufacturing capability is also related to R&D investment, international cooperation, lead times required for transitioning from an IP licensing-in environment to one where there is IP cross-licensing or IP licensing-out by Indian companies.³⁵ Fraunhofer respectfully encourages further targeted investment by India in R&D, and encouraging international R&D cooperation in order to build capability or build on already-existing synergies. Such an approach could likely assist Indian manufacturers finding it 'difficult to meet the pace of rapidly changing technologies, expenditure on Research and Development as well as marketing strategies as compared to their foreign counterparts'.³⁶ This would also address the concern expressed in the Consultation paper that 'there are not many IPRs generated in the electronics sector due to [the] poor state of innovation', and that India's total research

³⁰ See Consultation Paper, at page 5.

³¹ See Consultation Paper, at page 8.

³² See Consultation Paper, at page 8, where it is noted that the 'procurement of telecom equipment from locally manufactured sources was an essential clause in most of the [Indian government] tenders'. It may reasonable be concluded that industry relied on this privilege and did not have the incentive to adapt to a changing market and developing technology – negatively impacting on competitiveness and relevance of local industry.

³³ See Consultation Paper, at page 8.

³⁴ See Consultation paper, at page 5.

³⁵ See Consultation Paper, at page 8.

³⁶ See Consultation Paper, at page 9.

and development expenditure was only 0.8% of its GDP during the period 2005-14 – comparatively low compared to other jurisdictions cited.

Fraunhofer respectfully takes a different perspective to the report's assertion that '[s]ince IPRs are not held with the India telecom manufacturers, they incur higher expenditures on royalty payments which ultimately results in increase in providing of locally manufactured telecom equipments'³⁷. With respect, this is a false analogy. The licensing in of IPRs is a legitimate business cost, and cannot be directly compared to the level of high-risk investment in R&D which results in the granting of IPRs.

Furthermore, studies demonstrate that payments associated with the licensing in of IPRs have not exceeded 3.4% of the value of mobile handsets over the past 15 years or so.³⁸

1.4 Market Dynamics

Preferential market access raises strong concerns. It is stated that it is constrained to the government, public sector and their partners (both public and private). However, the government and public sector account for approximately 30% of India's ICT marketplace.³⁹ Preferential market access is a policy which distorts trade and in the long-run is deemed to harm the development of the national Indian market.

It is unclear how taxes on telecom equipment are linked with the security of IT-related industries. In any event, the paper fails to justify the assertion that 'India should aim at achieving self-sufficiency in telecom equipment manufacturing'. This does not appear conducive to international competitiveness.

1.5 Summary of Recommendations by TRAI in 2011 with Present Status

We commend the TRAI for providing a thorough overview and status of the measures already foreseen to support the domestic manufacturing of telecommunications equipment.

At the same time, we must observe that the comprehensive overview demonstrates that the implementation of the many of the measures – 19 of 41– have not yet commenced. In addition, several of those implemented measures are in the early stages of deployment. This leads us to suggest that introducing new measures could potentially have an unpredictable outcome, as impact

³⁷ See Consultation Paper, at pages 10-11.

³⁸ Haber, S; Galetovic, A; Zeretzi, L; 'A new Dataset on mobile Phone Patent License Royalties': See <http://hooverip2.org/working-paper/wp16011/>.

³⁹ Ezell S., Atkinson R., *The Indian Economy at Crossroads*, The Information Technology and Innovation Foundation (ITIF), April 2014, at page 21.

analysis in the current policy situation cannot be carried out to a full extent. Fraunhofer would like to suggest considering the impact of the already introduced reforms and measures in a 2-3 year horizon before further measures are introduced.

2. Responses to selected questions

Q.1 Large number of initiatives have been taken by the government to promote electronics manufacturing, while these initiatives have succeeded in attracting significant investments in other sectors like LED, consumer electronics mobile headsets, automotive electronics etc., they have failed to attract investments in telecom equipment sector e.g. PMA has worked very effectively in LED sector but did not work so effectively in telecom. Please summarise.

For an industry, such as telecommunications, which is truly global and relies on cooperation and collaborations at international level, introducing a trade distorting mechanism, such as Preferential Market Access poses a huge hindrance to its development and progress. On a macro-economic level, this measure is the biggest obstacle for the Indian local market.

Q.2 What policy measures are required to be instituted to boost innovation and productivity of local Telecom manufacturing in India? Please provide details in terms of short-term, medium and long-term objectives.

We respectfully consider that all government strategies and policies supporting India's enhancement of its innovation cycle in the telecom equipment manufacturing sector are borne in mind. These are noted in the paper as requiring 'sustained heavy investments on Research and Development (R&D)⁴⁰, and cannot be considered as being distinct or separate to the stated aims set out in the Consultation Paper. There must also be a return on such investments, for sustainable long-term growth.

There is no silver bullet, as evidenced from the latest economic report from Germany which has specific mention of investment in R&D and the need for return on investment in order to have a sustainable, competitive and growing economy.⁴¹

Fraunhofer encourages cross-departmental or –ministerial discussions, so that the Indian Government's initiatives are consolidated in a synergistic manner. For example, this could entail bringing together discussions on both the objectives and initiatives being led by the Department of Telecom, Central Board of Customs and Excise, the Ministry of Finance, and the Department of Science and Technology.⁴²

⁴⁰ See Consultation Paper, at page 8.

⁴¹ 'Strong investment in R&D noted by this report is a sign that we are not only concerned with the current bottom line, but also future ones': see <https://www.gtai.de/GTAI/Navigation/EN/Meta/Press/press-releases,t=germanys-growing-future,did=1814346.html>.

⁴² See Consultation Paper, Appendix 1.

Regarding incentives mentioned in the TRAI Consultation Paper, there is certainly an interrelationship between government revenue (e.g. imposition of taxes, duties and tariffs), and the funding of sustainable, long-term innovation systems.⁴³ To this end, any exemptions or reduced taxes, duties or tariffs applicable to both domestic and foreign companies should be carefully considered.⁴⁴

We further note that while it was identified that the local telecom equipment manufacturing differs from other activities in the telecoms sector, the causes of this situation were not thoroughly studied. Establishing causality is one of the most effective ways to constructively address an issue. Certain developments were identified, such as that 'Indian manufacturers find it difficult to meet the pace of rapidly changing technologies,' however the reason for it and specific cross-departmental or -Ministerial actions that can be taken to change it were not considered.

Q.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.

India as a WTO Member has strived for almost a decade to adapt its patent laws to the TRIPS standard. Fraunhofer perceives the Indian patent landscape as adequate when it comes to patentability requirements and patent granting procedures.

An issue that requires attention is creating conducive and mature environment for the commercialisation and protection of patent rights after their grant.

There is no reason to believe that the market and the courts are failing in relation to the licensing of standard essential patents. India has a robust legal system, and the rule of law is intact. Fraunhofer urges caution on any change to its intellectual property laws, access to justice, or commercial / competition laws.

Q4. Is the existing mechanism of Standardisation, Certification, and Testing of Telecom Equipments 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 Equipments.

We understand that the question refers to technology standards and provide our comments within this scope.

As provided on the Indian Government's website, specifically that of the Ministry of Commerce and Industry, there are several governmental bodies, Indian Authorities, and non-governmental organisations that are involved in standardisation.

⁴³ See Consultation Paper, at page 6.

⁴⁴ See Consultation Paper, at page 10.

For technology standards, which are global both in reach and in impact, there are two essential elements in a national standardisation ecosystem, namely transparency and coherence. Transparency is achieved by having clear rules and respecting the different roles of the various actors in the standardisation process. This includes SSOs, participants themselves, and the role of the courts. As between participants, legal rights should remain 'as is' so that no bias is introduced to the standard setting system.

Coherence at a global level is achieved by international co-ordination within the international standardisation bodies, such as United Nations' ITU and ETSI, specifically in the telecommunications sector. It is worth noting that FRAND commitments in ETSI and ITU are global and publicly accessible.

Education could be the key to informing market participants and users of technology alike about rights and responsibilities regarding intellectual property and products and services which derive therefrom.

Q5. Please suggest a dispute resolution mechanism for determination of royalty distribution on FRAND (Fair Reasonable and Non-Discriminatory) basis.

A FRAND undertaking is an undertaking to make IP accessible through a negotiated license on fair, reasonable and non-discriminatory terms. It requires good faith negotiation between the parties to conclude a license⁴⁵.

The important role of the courts and the fundamental rights of access to justice and the right to protect property should remain at the fore and not diminished. Fraunhofer respectfully observes that the rule of law is fundamental to business investment and societal advancement.

Given the importance of this issue, we would urge the TRAI to adopt an approach consistent with the following:

- 1) The availability of injunctive relief is recognized as being enshrined in WTO member obligations through TRIPs, and also human rights conventions;
- 2) In terms of trade, there is often a mutual obligation of good faith behaviour either expressly or impliedly operating at law;
- 3) Good faith is the relevant legal concept to apply to both an IPR owner and a potential licensee/IPR infringer;
- 4) Acting reasonably and within a reasonable time (promptly) to provide information regarding licensable patents, and to respond to an offer of a license, are further legal touchstones;
- 5) The meaning of reasonable time or promptly set out in 4) above are also found in other international conventions.

⁴⁵ See, for example, *Huawei v. ZTE*; *Ericsson v. iBall*.

- 6) The seeking of injunctive relief to protect property is not *per se* contrary to competition law, and the burden of proof rests with the party alleging breach of competition law to prove this through cogent evidence, taking into account all the circumstances of the case;
- 7) A standard essential patent is a patent, and therefore is also to be treated as normal property;
- 8) Every application for an injunction must be assessed on its own merits, with the court assessing the facts of the case before it and applying the doctrine of proportionality. As an element of this assessment, the court generally takes into account the impact of a change in the status quo which existed before the infringing conduct complained of commenced;
- 9) The infringing party should at the very least place money in escrow until such time as an appropriate license is put in place.

It is further noted that there is no presumption at law of patent hold up or patent hold out, and that the party alleging this in a particular case must demonstrate this with cogent evidence relevant to the fact of the case before a court. For example, a presumption that the owner of a standard essential patent owner who applies for injunctive relief will definitely threaten to demand an excessive rate of payment for the use of its IP, would be an unfair assumption against that IP owner in a specific case. This is dealt with further below in this section.

Furthermore, there is no express or implied commitment generally undertaken by owners of standard essential patents regarding injunctions.

Without the ability to protect IP assets, those IP assets have no value.

We strongly urge caution about interfering with this fundamental right. The current legal landscape already rightfully takes into account: the interests of both parties, the conduct of both parties and an expectation that each shall act in good faith, the requirement for action within a reasonable time frame, the option of placing money on escrow, and as assessment whether damages are an appropriate alternate remedy to an injunction.

Regarding alternate dispute resolution, it is noted that all forms of alternate dispute resolution are both voluntary, and rely on party autonomy.

Arbitration is infrequently used for disputes relating to patent licensing negotiation or patent licensing. It is assumed that this is for two main reasons: (i) patent disputes in this context usually arise when the parties are not in a contractual relationship, and so there is no pre-agreed means of resolving pre-contractual disputes (including challenges to the validity of patents); and (ii) very few arbitration rules provide that the arbitral tribunal has jurisdiction to determine validity of patents along with issues regarding pre-contractual negotiation. There thus remains the exposure of court proceedings where the validity of patents is challenged.

It is further noted that there is no ability for a court to review an arbitration award on the basis that there is an error of law appearing on the face of the award, nor can a court refuse to enforce such an award on that basis.⁴⁶ The parties are thus at the mercy of an arbitrator who may or may not be qualified in the area of technology or the overall market, or the relevant proposed governing law for an agreement. It would be an odd consequence of any arbitration if the governing law for a resulting contract is imposed on the parties, merely by virtue of holding a patent in a particular jurisdiction as part of a global patent portfolio and business.

While arbitration does have a role in particular circumstances, it is not considered a generally appropriate tool for parties negotiating a licensing agreement. This is particularly the case for SMEs who might own standard essential patents, who would not be aware of the details of arbitration, choice of arbitration rules, choice of arbitrators, choice of language, choice of counsel, how to manage costs so that it is not more expensive than litigation, or what it means to have no right to access to the courts to assert legitimate rights. As noted above, there will always be the exposure of court action in any event, if the validity of the patents is challenged.

In conclusion, for conducting negotiations effectively and efficiently, we humbly propose the TRAI to consider the general framework for FRAND licensing negotiations, recently confirmed by the CJEU in *Huawei v. ZTE*.⁴⁷ Most importantly, the CJEU stressed that both parties: the licensor of standard essential patents and the potential licensee bear responsibility for the process. This also applies to the manner of driving the licensing negotiations: both parties are held responsible for moving the process and both will be held accountable for bad-faith delays.

While it is uncommon to transplant one region's jurisprudence to another, Fraunhofer considers that the CJEU confirms established international practice. This has likewise been accepted in other jurisdictions. For India, for example, see the High Court of India judgements of *Ericsson v. iBall*⁴⁸, *Ericsson v. Intex*⁴⁹. Given that the subject matter is ultimately one of international trade, the TRAI along with the relevant Indian Government Ministries should also adopt a similar approach. Indeed, in the global technology market for ICTs, model practices, commercial rules and norms are the most effective means of maintaining level playing field in licensing negotiations. Thus, Fraunhofer, encourages the TRAI to take heed from the CJEU and courts around the world regarding standard essential patent licensing negotiations.

⁴⁶ *TCL Air Conditioners v. Judges of the Federal Court of Australia* [2013] . French CJ and Gageler J held, at paragraph 34, that '[e]nforcement of an arbitral award is enforcement of the binding result of the agreement of the parties to submit their dispute to arbitration, not enforcement of any disputed right submitted to arbitration'.

⁴⁷ For European Member State court decisions interpreting *Huawei v. ZTE*, see German decisions such as *One-Red v ASUS and Acer* LG Mannheim 29.01.2016, *St Lawrence v. Vodafone* LG Düsseldorf, 31.03.2016, *Sisvel v. Haier* LG Düsseldorf 03.11.2015 and 13.01. 2016, *St Lawrence v. Deutsche Telekom and HTC*, LG Mannheim 27.11. 2015, *NTT DoCoMo v. HTC* LG Mannheim 29.01.2016, or the English decision of *Unwired Planet International Ltd v Huawei Technologies Co Ltd & Anor* [2017] EWHC 1304 (Pat) (07 June 2017).

⁴⁸ I.A. No.17351/2015 in CS (OS) 2501/2015.

⁴⁹ I.A. No. 6735/2014 in CS(OS) No.1045/ 2014.

Patent Hold Up, Patent Hold Out, Royalty Stacking

Despite that fact that, in recent years, there have been submissions made in both policy and legal fora that there is a tension between intellectual property enforcement and antitrust enforcement. The interaction between patent law and competition law is not characterised by an inherent conflict between IPR and competition rules. Both aim to promote consumer welfare and efficient allocation of resources (EU Guidelines Art 101, para 7):

- It has been consistently confirmed by courts in a number of jurisdictions that there is no legal presumption that standard essential patents grant any form of automatic monopoly over a(n undefined) market in the antitrust context⁵⁰, or that enforcing a patent right is an abuse of market power⁵¹.
- It is also very important to note that *'[t]here is no implication that there is an inherent conflict between intellectual property rights and [...] competition rules. Both bodies of law share the same basic objective of promoting consumer welfare and an efficient allocation of resources.'*

Under European law, *Huawei v. ZTE* confirms that there is no special set rule that can be applied to standard essential patents. This is also reflected in the EU Guidelines: *'[...] the standards set forth in [those] guidelines must be applied in the light of the circumstances specific to each case. This excludes a mechanical application. Each case must be assessed on its own facts and these guidelines must be applied reasonably and flexibly'*, and in the EU Horizontal Guidelines which provide that *'[...] even if the establishment of a standard can create or increase the market power of IPR holders possessing IPR essential to the standard, there is no presumption that holding or exercising IPR essential to a standard equates to the possession or exercise of market power. The question of market power can only be assessed on a case by case basis'*.

This distortion of policy and law has blurred roles in the standard development ecosystem – from the role of standard development bodies to attempts to fetter the role of courts in international commerce. This in turn appears to be negatively impacting innovation itself, creating a costly and fragmented operating environment for legitimate participation in international standard setting and the implementation of the resulting intellectual property - most often through commercial enterprise.

⁵⁰ See: [EU Guidelines on the application of Article 101 of the Treaty on the Functioning of the European Union to technology transfer agreements](#), in particular at paragraphs 3, 6, 7-9, and the remainder of Section 2 and the [EU Horizontal Guidelines on the applicability of Article 101 of the Treaty on the Functioning of the European Union to horizontal co-operation agreements](#) at paragraph 269. Guidelines under 'Purpose' at Page 1. See also the U.S. Department of Justice and the Federal Trade Commission [Antitrust Guidelines for the Licensing of Intellectual Property](#) (12 January 2017), in particular the General Principles set out on page 2, section 2.2 ; [Antitrust Enforcement and Intellectual Property Rights: Promoting Innovation and Competition](#) issued by the U.S. Department of Justice and the Federal Trade Commission (April 2007) at Chapter 2. For U.S. case law regarding the seeking of injunctions, see the US Supreme Court in [EBay Inc. et al. Petitioners v. MercExchange LLC 547 US 388](#) (2006); See also See 35 USC 154(a)(1), 261, and 283. Refer also to *Weinberger v. Romero-Barcelo* 456 US 305 (1982).

⁵¹ Bostyn, Sven and Petit, Nicolas, [Patent=Monopoly: A Legal Fiction](#) (December 31, 2013).

The most common allegation framed within competition or antitrust law during a license negotiation for standard essential patents that are subject to a FRAND undertaking appears to be that a patent owner is seeking to extort money from a user of that intellectual property through the threat of injunctive relief – thus abusing a dominant position in the market. Such an allegation most often focuses on the royalty rate being sought as part of the license arrangement, ignoring the other elements of FRAND.

Any study based or framed on the assumption of patent hold up and royalty stacking is fundamentally flawed. It would be disingenuous to base any policy intervention on the outcomes of any of those studies. Indeed, there is no presumption that a standard essential patent grants market power and there is no presumption of patent hold up, patent hold out or royalty stacking.

The key point here is good faith negotiations – both parties are expected to share sufficient information with each other during the negotiation of a licensing agreement so that a real negotiation can take place within a reasonable period of time. It is confirmed in jurisdictions around the world that there can be no assumption of patent hold up or patent hold out. In the US, for example, there is the Federal Circuit decision of *Ericsson v. D-Link* (confirmed in the Federal Circuit decision of *CSIRO v. Cisco*) that there is no presumption that patent hold out or patent hold up, and if it is asserted and is causing problems, then it must be pleaded in court and the assertion supported by cogent evidence. The assessment is made on a case by case basis. Indeed, there is no presumption in fact or at law that patent hold-up⁵², royalty stacking⁵³ or lock-in exist as the ‘state of being’. ‘*Certainly something more than a general argument that these phenomena are possibilities is necessary*⁵⁴.’

The consequence of finding patent hold out (referred to as wilful infringement in the courts) is the awarding of treble or additional damages. We are seeing this in case law from European jurisdictions, which appear to focus more on assessing the overall conduct of the owner of a standard essential patent and a potential licensee, rather than establishing an appropriate royalty rate between these parties who fall into dispute regarding FRAND.

If we look abroad, conduct has been considered in recent US case law, 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.*⁵⁵ In Final Judgment, the court stated that ‘LG’s decision to terminate negotiations and continue operations without a license was driven by its resistance to being the first in the industry to take a license, and not by the merits or strength of its non-infringement and

⁵² ‘Patent hold-up exists when the holder of a SEP demands excessive royalties after companies are locked into using a standard.’ *Ericsson v. D-Link*, at *7 - 8.

⁵³ See *Ericsson v. D-Link*, footnote 8 at *50.

⁵⁴ *Ericsson v. D-Link*, at *54, where the US Court of Appeals for the Federal Circuit addressed this.

⁵⁵ Case No. 2:14-cv-912-JRG (hereinafter referred to as *Core Wireless v. LG*).

invalidity defences⁵⁶. In the case of *SRI International Inc. v. Cisco Systems Inc.*,⁵⁷ attorney fees and enhanced damages were awarded against the defendant for both wilful infringement and its aggressive and unreasonable conduct of the trial.⁵⁸

It is the conduct of both parties to the commercial negotiation for the licensing of standard essential patents which is important, with the touchstone being acting in good faith for those negotiations.

Q7. Are there any issues under ITA which need to be addressed for making the local Telecom Manufacturing more competitive and robust?

Refer to Section 1 above.

Q9. Does the existing PMA policy require any change? If yes, then please provide complete details with justification.

Respectfully, Fraunhofer Gesellschaft would strongly advocate for the Indian Government to reconsider the preferential market access policy, as it raises strong concerns. Even though it is constrained to the government, public sector and their partners (both public and private), these account for approximately 30% of India's ICT marketplace.⁵⁹ Preferential market access is a policy which distorts trade and in the long-run is deemed to harm the development of the national Indian market.

⁵⁶ *Core Wireless v. LG*, at page 3.

⁵⁷ Civ. No. 13-1534-SLR (hereinafter referred to as *SRI v. Cisco*).

⁵⁸ See *SRI v. Cisco*, at pages 64-68.

⁵⁹ Ezell S., Atkinson R., *The Indian Economy at Crossroads*, The Information Technology and Innovation Foundation (ITIF), April 2014, p. 21.

3. Detailed Comments

Section	Content	Comments
Chapter I: Introduction and Background	<i>India's objective of self-sufficiency in telecom equipment manufacturing. [p. 6]</i>	This is a very general objective, which is not supported by further measures in the document. In addition, in the global market for technology and the international standards in the ICT, Fraunhofer questions the feasibility of this goal. Also, it is not considered that consumer interests will be best served by only having access to locally manufactured telecom equipment. Versatility, variety and quality are of interest to the consumers. These are best achieved through a strong competition in the market. It is suggested to consider a goal in the form of: "Building a robust technology base in the area of telecom equipment capable of competing in the global market."
Chapter II: Present Concerns of the Local Telecom Manufacturing	<i>The Indian electronics industry is caught in a vicious circle of zero duty imports, high domestic production costs and manufacturing ecosystem challenges. [p. 9]</i>	These are not considered to be all relevant factors for local industry being globally competitive. Refer to Section 1 above .
Chapter II, 1, e Intellectual Property Rights (IPRs)	Intellectual Property Rights (IPRs): Innovation	This section, which points out that there is little IPR generated in electronic equipment in India demonstrates strong bias against foreign high-technology. This demonstrates itself in the focus of this section on royalty payments, which are due for licensing the technology. There is not a word about the benefits of access to world-class, modern interoperable electronic technology. In addition, the section lacks consideration that the demand side of the market – the consumers – is very interested in obtaining best possible technology and willing to purchase goods with highest technological premium at a minimally higher price. An alternative to paying the marginal difference in price per product for advanced technology is to invest – in a 30-year horizon – in knowledge base, research and development, and goal-oriented investment. The " <i>grim state of innovation</i> " (Consultation paper, p. 11) asserted by the TRAI in this paper appears to be based on what is described as poor patent output. With

		respect, this is a wrong mix of thoughts and concepts. IPRs cannot guarantee investment in R&D, skilled labour, dynamic, robust and well-founded innovation cycle. In this sequence of complex and risky processes, IPRs play an important role as the guarantor of rights, which in turn are necessary to pursue return on the said investment. However, IPRs are legal rights that lay foundation for a healthy and economically viable innovation and not an innovation incentive.
Chapter II, section (ii) Standard Essential Patents	Standard Essential Patents	<p>There is no definition of the standard essential patent. However, the Consultation Paper refers to the Delhi High Court Decision in <i>Ericsson vs. CCI</i> (point 8, pg. 7 of the judgment), decided on 30.03.2016.</p> <p>It is suggested that a definition of a standard essential patent be derived from a definition used by an international standards body, such as, for example ETSI.</p> <p>ETSI definition of a standard: ““a 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”⁶⁰. In addition, ETSI developed a typology of standards, with each having distinct characteristics.⁶¹</p> <p>It is important to note that defining a standard essential patent does not change the character of this form of IPR being a patent, and therefore subject to and running with property rights which must be respected for a competitive and robust market.</p>
	<i>“A patent which is accepted as a standard (for instance 3G, 4G technology standards) for any equipment acquires the status of SEP.”</i> (p. 12)	<p>Respectfully, a single patent never becomes a standard in the high technology ICT. The usual practice is that there are multiple patents from multiple parties, which all have to be pulled into a standard, in order to guarantee interoperability.</p> <p>It should also be noted that there are two mechanisms here: before a patent technology can be considered for inclusion in the standard, the patent owner has to submit to the respective Standard Developing Organisation a valid and binding FRAND undertaking. Then, and only then, the patented technology will be</p>

⁶⁰ ETSI: <http://www.etsi.org/standards/what-are-standards> Last accessed on 04.10.2017.

⁶¹ ETSI Standards available at: <http://www.etsi.org/standards/different-types-of-etsi-standards> Last accessed on 04.10.2017.

		<p>considered in the process of developing the standard and once included in the standard, it will become standard essential and the patent becomes the standard essential patent (SEP).</p> <p>A FRAND undertaking is an undertaking to make IP accessible through a negotiated license on fair, reasonable and non-discriminatory terms. It requires good faith negotiation between the parties to conclude a license (<i>Huawei v. ZTE</i>).</p>
	<p><i>SEP has a direct bearing on cost of equipments. (p.12)</i></p>	<p>A FRAND undertaking is an undertaking to make IP accessible through a negotiated license on fair, reasonable and non-discriminatory terms. It requires good faith negotiation between the parties to conclude a license (<i>Huawei v. ZTE</i>).</p> <p>Fraunhofer respectfully notes that there is no assumption that ownership of IP results is a <i>prima facie</i> dominant position in a market and there should be no assumption that a SEP holder abuses any position in the market place.</p> <p>Competition law and patent law have operated in harmony for many years. There is no inherent conflict between IPR and competition rules. Both aim to promote consumer welfare and efficient allocation of resources (EU Guidelines Art 101, para 7). The EU Guidelines must be applied in light of the circumstances specific to each case. This excludes mechanical application, and they must be applied reasonable and flexibly: para 3. The same approach is used for the EU Horizontal Guidelines. Furthermore, there is no legal presumption that patents grant any form of automatic monopoly over a market in the antitrust context: EU Guidelines Art 101, paras 3, 6, 7-9; Horizontal Guidelines Art. 269; <i>Huawei v. ZTE</i>; US FTC-DOJ 1995 Licensing Guidelines §2.3. Where necessary, courts will assess whether relevant parties are engaging in good faith negotiations according to commercial norms and law (<i>Huawei v. ZTE</i>) – this is a higher burden for parties to prove than the mere ‘willingness’ or ‘unwillingness’ of a party as set out in the IEEE policy.</p> <p>Fraunhofer would like to underline that a recent study by the Hoover Institute shows that the cost allocable to IP licensing has remained stable over the past 15 years. See Galetovic, A., Haber, S., Zaretski, L., ‘Is there an anti-commons tragedy in the</p>

		<p>smartphone industry?', Hoover IP2, Working paper series No. 17005, revised 1 August 2017. Available at: http://hooverip2.org/working-paper/wp16011/.</p> <p>We strongly urge the TRAI to reconsider the use of statements, which are not based on the state of the law and practice.</p>
	<p><i>“Presently, calculation of royalty on FRAND basis remains a challenge and is the bone of contention in the ongoing SEP disputes. Therefore, there is a need to devise formula / mechanism to determine the basis on which SEPs can be licensed on FRAND.” (pp. 12-13)</i></p>	<p>The majority of licences in relation to standard essential patents are concluded through negotiation between the parties. There is no reason to disturb commercial relations, many of which run for many years due to the life of patents.</p> <p>There is no one method of determining licence fees or damages for infringement, and there is and can never be such a rule: <i>CSIRO v. Cisco</i> (2015, at 1303), which held that the adoption of a rule proposed by Cisco (in particular one which would require parties to adopt the smallest saleable practicing unit) is untenable; see also <i>Ericsson</i> (2014, at 1226).</p> <p>European and Member State law also reflects this position: EC TTBER – it is legitimate to calculate royalties based on final product base where licensed technology relates to an input incorporated into a final product. EU Guidelines Act 101 – parties are able to take into account a number of elements for determining license fees including the incentive to innovate, sunk investments and R&D costs (at para 8-9). As a final point, it is noted that IP owners are considered to be best placed to determine licence fees (particularly where other licences are in place) and courts are best placed to determine damages, based on each case, evidence presented and based on commercial norms. An interference with the role of accepted commercial norms and the courts could have grave and unintended consequences on innovation for Indian society and markets.</p> <p>Fraunhofer urges caution against such an approach.</p>
	<p>“While royalty determination is primarily a commercial</p>	<p><i>Huawei Technologies Co. Ltd v ZTE Corp., ZTE Deutschland GmbH</i> (Case C-170/13, 2015) recognizes the rights of IP owners to protect property, and the</p>

	<p>negotiation, but lack of any guiding factors and asymmetric bargaining capacity between licensor and licensee often ends up in litigation.” (p. 13)</p>	<p>obligation of both parties to engage in good faith negotiations.</p> <p>It is expected that both the licensor and licensee will sit at the negotiation table and participate in finalising required licenses in good faith. These have been guiding touchstones to trade, whether it be domestic, regional or international, for generations and were confirmed in <i>Huawei v. ZTE</i>.</p> <p>The suggestion that there needs to be a formula or mechanism to determine the basis on which standard essential patents be licensed on FRAND is rejected. Such an approach has been rejected as untenable⁶², as there is no one methodology for valuing IP, and to attempt to foster a ‘one size fits all’ on IP owners would result in government regulation overriding the market and its dynamics. This is not considered to be conducive to a competitive economy.</p> <p>European and Member State law also reflects this position: The European TTBER⁶³ states that it is legitimate to calculate royalties based on a final product base where licensed technology relates to an input incorporated into a final product. The EU Guidelines on the application of Article 101⁶⁴ provide that parties are able to take into account a number of elements for determining license fees including the incentive to innovate, sunk investments and R&D costs⁶⁵.</p> <p>In light of the above, Fraunhofer calls on the TRAI to follow the established international practice and to refrain from providing any indication as to the royalty calculation base.</p> <p>If one has regard to jurisdictions around the world, it has been consistently stated that there is no one methodology to be employed to calculate royalties.</p>
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⁶² See *CSIRO v. Cisco*, at 1303.

⁶³ Commission Regulation (EU) No 316/2014 of 21 March 2014 on the application of Article 101(3) of the Treaty on the Functioning of the European Union to categories of technology transfer agreements (TTBER) Official Journal L93, 28.03.2014, p.17-23

⁶⁴ Communication from the Commission — Guidelines on the application of Article 101 of the Treaty on the Functioning of the European Union to technology transfer agreements (Guidelines) Official Journal C89, 28.03.2014, at pp 3-50.

⁶⁵ See the Guidelines to Article 101, at paragraphs 8-9.

		<p>In the US, it has been expressly stated that there is no set of factors that serve as a talisman for royalty rate calculations.⁶⁶ To the extent that one court should mirror the analysis of other cases such as <i>Innovatio</i> or <i>Microsoft</i>, the US Court of Appeals for the Federal Circuit has specifically rejected that argument.⁶⁷ It has further noted that factors for consideration 'may also need to be adapted on a case-by-case basis depending on the technology at issue.'⁶⁸</p> <p>Concluding on the issue of RAND in <i>Ericsson Inc. v. D-Link Inc. et al</i>, the US Court of Appeals for the Federal Circuit held:</p> <p><i>We believe it is unwise to create a new set of [...] factors for all cases involving RAND-encumbered patents. Although we recognize the desire for bright line rules and the need for district courts to start somewhere, courts must consider the record [...] and should avoid rote reference to any particular damages formula.</i>⁶⁹</p> <p>In Europe, the UK Court of Appeals recognised in <i>Unwired Planet v. Huawei</i>⁷⁰ the same principle – there is no prescribed way of calculating royalties and parties are free to negotiate the rate, in good faith.</p> <p>In addition, a recent study demonstrates that patent holders in the smartphone value chain do not exercise any meaningful monopoly power to raise prices.⁷¹</p>
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⁶⁶ *Ericsson Inc. v. D-Link Inc. et al*, at *47 - 50.

⁶⁷ *Ericsson Inc. v. D-Link Inc. et al*, at *49.

⁶⁸ *Ericsson Inc. v. D-Link Inc. et al*, at *48.

The Court expressed 'no opinion on the methodologies employed in these district court cases (when determining a royalty award) – which may yet come before this court – or in their applications to the facts at issue there. The facts in those cases, and the decision-makers involved, differ from those at issue here (in *Ericsson Inc. v. D-Link Inc. et al*). We address only the record before us and what a jury must be instructed when RAND-encumbered patents are at issue and the jury is asked to set a RAND royalty rate.' See *Ericsson Inc. v. D-Link Inc. et al*, footnote 8 at *50.

⁶⁹ *Ericsson Inc. v. D-Link Inc. et al*, at *50.

⁷⁰ *Unwired Planet International Ltd v Huawei Technologies Co Ltd & Anor* [2017] EWHC 1304 (Pat) (07 June 2017)

⁷¹ Galetovic, A., Haber, S., Zaretski, L., 'Is there an anti-commons tragedy in the smartphone industry?', Hoover IP2, Working paper series No. 17005, revised 1 August 2017. Available at: <http://hooverip2.org/working-paper/wp16011/>.

		<p>Fraunhofer strongly urges the TRAI to acknowledge the norms and principles of contract negotiation reinforced by the Courts in the United States, India and Europe, as discussed above and thus, to refrain from providing guidance with respect to royalty calculation. To do so could very well distort sectors operating in the IoT-based markets.</p>
	<p>Non-Disclosure Agreements <i>“A need therefore exists to transparently mention the range of royalties to be paid in percentages wherever feasible”</i> (p. 13)</p>	<p>Non-disclosure agreements (NDAs) do not constrain competition: if it were the case, the market for technology would not be developing as it does. NDAs are an essential mechanism in licence negotiations and a competitive market economy includes the possibility (and freedom) of parties to negotiate their contracts.</p> <p>The proposed other means of disrupting the licensing of standard essential patents (creation of a licensing portal, and disrupting the commercial practice of having non-disclosure agreements (NDA) in place) are not considered valid, feasible or relevant to the discussion regarding the licensing of standard essential patents. The FRAND commitment applies to all parties to a negotiation, and all are expected to negotiate in good faith. Having an NDA in place is considered normal commercial practice, endorsed by courts around the world.⁷²</p>

⁷² See, for example, the March 2017 decision of the Beijing IP Court in *Iwncomm v. Sony*. See also the UK decision of *Unwired Planet v. Huawei*.