THE EUROPEAN COMMISSION’S COMMUNICATION ON STANDARD ESSENTIAL PATENTS: A STEP FORWARD TOWARDS THE DIGITAL SINGLE MARKET AND THE INTERNET OF THINGS?

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I. INTRODUCTION

By enabling interoperability and enhancing innovation through the development of high-performance cutting-edge technologies, standardisation ² has led to a continuous growth in many industries, especially in the Information and Communication Technology (ICT) sector. The evolving digitalization of the economy and particularly the emerging Internet of Things (IoT) will profit greatly from standardisation.³

Standards are developed and set within Standard Development Organisations (SDOs). In technology-heavy sectors (for instance, in the wireless telecommunication industry), standards driven by SDOs are widely based on technology protected by patents. As a rule, holders of patents essential for complying with a standard (Standard Essential Patents or SEPs) are encouraged by SDOs to make their SEPs accessible to users on Fair, Reasonable and Non-Discriminatory (FRAND) terms and conditions.⁴

The actual content of FRAND is to be determined on a case-by-case basis by the SEP holder and the standards user in good faith negotiations. In practice, licensing negotiations for SEPs can be challenging, particularly when parties with limited or no experience in this field engage in such negotiations, for instance, market entrants or small and medium sized enterprises (SMEs). It is, therefore, not surprising that FRAND licensing

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² The term standardisation used in the present paper refers to so-called “de jure” standards, that is, standards developed through a formal procedure and endorsed by a Standard Development Organisation. De jure standards are to be distinguished from “de facto” standards, which refer to technological solutions adopted widely in the market, without having been developed within a standardisation body.


⁴ For instance, Article 6.1. of the Intellectual Property Rights (IPRs) Policy (IPR Policy) of the European Telecommunications Standards Institute (ETSI) reads as follows: “When an ESSENTIAL IPR relating to a particular STANDARD or TECHNICAL SPECIFICATION is brought to the attention of ETSI, the Director-General of ETSI shall immediately request the owner to give within three months an irrevocable undertaking in writing that it is prepared to grant irrevocable licences on fair, reasonable and non-discriminatory (“FRAND”) terms and conditions under such IPR [...]” ETSI Directives: Rules of Procedure: Annex 6: ETSI Intellectual Property Rights Policy, EUR. TELECOMM. STANDARDS INST. 38, art. 6.1 (2019) [hereinafter ETSI IPR Policy].
and the enforcement of SEPs are major issues discussed in the context of standardisation.

On 29th November 2017, the European Commission (Commission) published a Communication entitled “Setting out the EU Approach to Standard Essential Patents” (Communication). The Communication is part of an initiative called “A Digital Single Market Strategy for Europe,” which was introduced by the Commission back in 2015 as a policy enhancing the European Single Market. In the Commission’s eyes, standards support innovation and growth in Europe by enabling interoperability of the digital technologies that are the foundation of the Digital Single Market (DSM); particularly, IoT and 5G standards (along with big data technologies, cloud and cybersecurity) were identified as the “essential technology building blocks” of the DSM.

In the Communication, the Commission laid down its views on current and future challenges of standardisation, particularly with an eye on the digital economy and the IoT. The Communication defines its objectives as follows: incentivising “the development and inclusion of top technologies in standards,” by (1) preserving “fair and adequate return” for contributions to standards and (2) ensuring “smooth and wide dissemination of standardised technologies based on fair access conditions.”

From this starting point, the Commission addressed recommendations to stakeholders involved in standardisation mainly on three key topics: the transparency of the framework for the declaration of SEPs (see Part B), the licensing of SEPs (see Part C), and the enforcement of SEPs (see Part D). Besides that, the Commission also expressed its basic position on the relationship between standardisation and Open Source projects (see Part E). The Commission’s recommendations are non-binding and rather have the function of a roadmap, initiating further discussions on the relevant topics.
This paper offers an overview of these recommendations, which in each case is followed by a critical assessment, focusing on the aspects that need to be further elaborated in future debates. The main findings derived from this analysis are summarized in the closing part of the paper.

II. TRANSPARENCY OF THE FRAMEWORK FOR THE DECLARATION OF SEPs

The declaration of patents as potentially essential to a standard, typically required by SDOs, supports standardisation efforts in two main ways: (1) Respective declarations clarify whether patented technology needed to implement the standard will be accessible to users on FRAND terms and conditions, and (2) declarations ensure that the standardisation work can proceed at a fast pace. Accordingly, the frameworks laid down by SDOs for the declaration of SEPs (SEP declaration frameworks) focus on serving the standardisation work itself (which, as a rule, excludes commercial discussions); in their current state, they are not designed to fulfil further functions, for instance to assist or facilitate FRAND determination.

This basic understanding will prove to be valuable, when approaching the Commission’s recommendations on the transparency of SEP declaration frameworks which are presented and analysed next.

A. The Commission’s Recommendations

The Commission considers that transparent information on the existence, scope and relevance of essential patents is required for enabling fair licensing negotiations. Particularly new players with little or no experience with SEP licensing, for instance inexperienced companies in the IoT field, rely on transparent information to assess their exposure to SEPs.

The Commission finds that information on SEPs currently available to implementers needs to be improved in terms of both accessibility and quality. In the Commission’s view, implementers cannot rely on the declaration databases maintained by SDOs to determine

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9 Id. at 3.
10 For instance, Article 4.1. ETSI IPR Policy reads as follows: “[…] each member shall use its reasonable endeavours, in particular during the development of a standard or technical specification where it participates, to inform ETSI of essential IPRs in a timely fashion. In particular, a member submitting a technical proposal for a standard or technical specification shall, on a bona fide basis, draw the attention of ETSI to any of that member’s IPR which might be essential if that proposal is adopted.” ETSI Directives: Rules of Procedure: Annex 6. ETSI Intellectual Property Rights Policy, EUR. TELECOMM. STANDARDS INST. 38, art. 4.1 (2019). Article 8 of ETSI IPR Policy also lays down the procedure to be followed, in case that a respective declaration is missing (a measure to be taken is, among others, searching for technical alternatives). See id. at 40-41, art. 8.
11 Setting out the EU Approach to Standard Essential Patents, supra note 7, at 3.
12 See id.
13 Id.
essentiality because they are not subject to scrutiny regarding such essentiality.\textsuperscript{14}

i. Operational Improvement of Declaration Databases Maintained by SDOs

As a tool for improving transparency, the Commission suggests the operational improvement of SEP declaration databases maintained by SDOs. In terms of accessibility, the Commission recommends that these databases must have “user friendly interfaces” and allow access to SEP holders and implementers, as well as third parties.\textsuperscript{15} Further, information contained in the databases should be “searchable” based on the relevant standardisation projects.\textsuperscript{16} In terms of quality, SDOs should ensure that “duplications or other obvious flaws” are eliminated and that the available information is linked to databases of patent offices, including updates of patent status, ownership and patent transfer.\textsuperscript{17}

ii. Modification of the Declaration System

In addition to the operational improvement of existing SDO databases, the Commission also recommends modifications to the current declaration system practiced by SDOs, as a further means to enhance transparency.

In particular, SEP holders should be requested to provide more up-to-date and accurate information regarding their declarations towards SDOs. Declarations should contain, at least, a reference to the section of the standard to which the SEP relates, a link to the patent family, and information on how to contact the SEP holder.\textsuperscript{18}

Furthermore, the Commission finds that SEP holders “should review” the relevance of their declarations (1) at the time of the final adoption of the standard, (2) when the standard is significantly revised, and (3) when the final patent granting decision is taken (SEP declaration reviews).\textsuperscript{19} According to the Commission, the reasoning behind this lies in the fact that the standard constantly evolves during the usually long-lasting development process, so that patent claims relevant for the standard at an early stage of the process might become irrelevant for the standard that is finally adopted.\textsuperscript{20} To incentivise SEP holders to review their declarations (and discourage “over-declaration”), the Commission also encourages

\textsuperscript{14} Id.
\textsuperscript{15} Id.
\textsuperscript{16} Id.
\textsuperscript{17} See Setting out the EU Approach to Standard Essential Patents, supra note 7, at 3.
\textsuperscript{18} Id. at 4.
\textsuperscript{19} Id.
\textsuperscript{20} Id.
SDOs to consider establishing (modest) fees for confirming declarations after the release of the standard and the grant of the patent.21

The Commission further holds that the essentiality of SEPs should be subject to scrutiny by an independent third party “at the right point in time” (essentiality checks). 22 This tool shall act as a counterweight, particularly to the “risk of broad over-declarations.” 23 The Commission assumes that patent offices may be an adequate forum for taking on essentiality checks.24 In the Commission’s eyes, any “scrutiny requirement” that is introduced, however, has to be balanced against the respective costs.25 These costs, states the Commission referencing a 2016 study of Charles River Associates, “may be negligible” compared to “licensing revenues in key technologies.”26 Nevertheless, the Commission understands that an “incremental approach” is needed, whereby essentiality checks will be performed “at the request” of the parties involved in SEP licensing and could be limited in terms of both “depth of scrutiny” and number of examined SEPs (for instance, checks covering only one patent within a patent family or limited to samples).27

Besides that, the Commission suggests that making information on the outcomes of litigation or arbitration/mediation proceedings involving SEPs28 (particularly the outcomes of proceedings regarding to essentiality and patent validity) available to stakeholders through the SDOs is another tool for enhancing transparency, which ought to be taken into account.29

Considering that the recommended modifications will involve additional efforts and costs, the Commission introduces the notion of proportionality; 30 stakeholders should not be burdened with “excessive burdens.”31 The Commission takes the view that a possible way to achieve proportionality is by extending such measures gradually and applying them

21 Id. at 5.
22 See Setting out the EU Approach to Standard Essential Patents, supra note 7, at 5.
23 Id.
24 See id. Since April 2018, the Japan Patent Office (JPO) offers a mechanism for the assessment of the essentiality of patents for a standard. This mechanism is based on the existing “Hantei” (or Advisory Opinion) system, which allows interested parties to request from the JPO a (non-binding) assessment of the technical scope of a (Japanese) patent. See generally Trial & Appeal Dep't, Manual of “Hantei” (Advisory Opinion) for Essentiality Check, JAPAN PATENT OFFICE (Mar. 2018), https://www.jpo.go.jp/e/system/trial_appeal/document/hantei_byojun/01_e.pdf (describing a detailed presentation of the new mechanism for essentiality checks) [hereinafter Manual of “Hantei” (Advisory Opinion) for Essentiality Check].
25 Setting out the EU Approach to Standard Essential Patents, supra note 7, at 5.
26 Id. at 5 n.20 (citing PIERRE RÉGIBEAU ET AL., TRANSPARENCY, PREDICTABILITY, AND EFFICIENCY OF SSO-BASED STANDARDIZATION AND SEP LICENSING: A REPORT FOR THE EUROPEAN COMMISSION (Charles River Associates 2016)).
27 Id.
28 See id. at 4.
29 Id. at 4, 11.
30 Id. at 4.
31 Setting out the EU Approach to Standard Essential Patents, supra note 7, at 4.
only to new or key standards, such as the upcoming 5G standard.\textsuperscript{32} When assessing proportionality, however, the Commission recommends that stakeholders ought to bear in mind that currently incurred costs might be reduced if transparency is increased—particularly the costs SEP holders must bear in licensing negotiations for substantiating the essentiality of their patents as well as the patent-infringing use by the implementer.\textsuperscript{33}

\textbf{B. Assessment of the Commission’s Recommendations}

The Commission’s recommendations on enhancing the transparency of the declaration framework supporting the standardisation process seem, in general, to be a good base for further discussions. Questions arise, however, particularly when looking at the specific implementation of the recommended measures.

\begin{itemize}
\item[i.] \textbf{Operational Improvement of Declaration Databases Maintained by SDOs}
\end{itemize}

Better accessible information of higher quality could, in principle, enhance transparency in connection with the licensing of SEPs, as the Communication suggests. Nevertheless, the respective recommendations seem to require further elaboration and a cost-benefit analysis.

First, one should keep in mind that essentiality declarations are only a source of indirect information; such declarations are not linked to the licensing of SEPs. Indeed, as already pointed out above, their function lies in making the standard accessible to users and supporting the progress of standardisation work.

Further, the Communication does not directly address in this context the question of the costs attached to implementing the recommended measures: Who will have to bear these additional costs? Could such additional costs (and the delay that such processes would imply) pose burdens on the standardisation process and/or the incentives to contribute in standardisation?

Given that the Commission addresses the respective recommendations to SDOs, it must be assumed that any additional costs incurring in connection with the operational improvement of declaration databases will have to be shouldered by the latter. The proposed measures could, however, require significant investments (\textit{e.g.} costs of external service providers, additional staff costs). Considering that database structures currently maintained by SDOs vary in terms of quality from organisation to organisation, such investments could be challenging particularly for SDOs maintaining only basic structures so far. Thus, it cannot be ruled out that the respective cost burden could, for instance, lead

\textsuperscript{32} See \textit{id}. at 5.

\textsuperscript{33} See \textit{id}. at 4.
to the introduction of additional fees by SDOs, in order to finance such investments. This could, in turn, eventually have the potential to make participation in standardisation less attractive or unaffordable by SMEs, thus contradicting the World Trade Organisation’s (WTO) “openness” principle, which SDOs usually subscribe to.\(^{34}\) Moreover, since essentiality declarations are generally not used as the basis for FRAND negotiations, it appears advisable to take a closer look at both the cost and the added value questions, before formulating specific (and binding) operational requirements for databases maintained by SDOs.

The same is true with respect to the suggested reporting on the outcomes of litigation or arbitration/mediation proceedings involving SEPs by the SDOs. As a rule, arbitration and mediation proceedings are subject to strict confidentiality restrictions covering the overall process, including the outcomes. Besides confidentiality issues that need to be resolved in this context, the question arises regarding who will have to shoulder the burden of collecting and making such information publicly available. Since SDOs appear to be best situated to assume this task, the cost-benefit question discussed above is posed again.

ii. Modification of the Declaration System

Although the modifications of the current declaration system recommended by the Commission represent initial thoughts that need further development, they appear to be a good starting point for further discussions on the respective topics. A closer debate seems particularly desirable with regards to the two measures, which are expected to have the most substantial practical impact on the standardisation ecosystem: the proposed SEP declaration reviews and the essentiality checks.

a) SEP Declaration Reviews

Although not expressly mentioned in the Communication, the Commission seems to suggest making mandatory for SEP holders to introduce SEP declaration reviews (“rightholders should review the relevance of their declarations”).\(^{35}\) Assuming that this is the case, the Commission should first elaborate on the concrete prerequisites of compliance with the respective obligation, after which the legal effects attached to the introduction of such reviews should be carefully considered.

In terms of specifying the prerequisites of compliance with a (future) obligation to perform SEP declaration reviews, it will be

\(^{34}\) The principle of “openness” requires that participation in every stage of the (formal) standardization process should be open to all interested parties. See Fredrik Nilsson, *An Appropriate Base to Determine a Fair Return on Investment: A legal and Economic Perspective on FRAND*, 13 J. INTELL. PROP. L. & PRAC. 414, 416 (2018).

\(^{35}\) *Setting out the EU Approach to Standard Essential Patents*, supra note 7, at 4 (“Therefore, rightholders should review the relevance of their declarations at the time of adoption of the final standard (and subsequent significant revisions) and when a final granting decision on the patent is taken.”).
particularly needed to clarify the point in time at which the SEP holder would be required to carry out respective reviews. Does the “adoption of the final standard” stated in the Communication\textsuperscript{36} refer to the time the standard specification text is finalised within the SDO or the time the standard has been adopted in the market? Using the finalisation of the standard specification text as a reference point might prove to be ineffective, since the assessment of essentiality prior to market adoption of the standard will most likely have limited value for stakeholders (the SEPs embedded in the standard will probably not be widely used at this point). Furthermore, which subsequent revisions of the standard are to be considered “significant” in terms of the Communication, triggering a need for a further review of the declaration by the SEP holder? Standards are constantly being updated, particularly in industries where standards are developed at a very fast pace, for instance, the wireless telecommunication field where new publications within the same release can take place every few months.\textsuperscript{37} Also, is every new standard release “significant” per se, or is it required that the revised standard incorporates substantial technological development, and if so, to what extent?

Considering, on the other hand, the potential legal effects of imposing SEP declaration reviews on SEP holders, several questions need to be addressed. For instance, should refraining from a SEP declaration review after a “significant revision”\textsuperscript{38} of the respective standard be sanctioned, and if so, by whom and how? Should the SDO charge SEP holders with respective “late fees”? Could potential sanctions reach so far as to affect the legal standing of the respective SEP declaration and if so, with what further implications, for instance for the accessibility of the standard to users (e.g., is the patent still subject to a FRAND undertaking, if a review is omitted)? The legal uncertainties emerging from these questions could have the potential to lead to more disputes and, accordingly, to more litigation, creating hurdles in the way of standardisation efforts.

Furthermore, taking into account that SEP holders would avoid being accused of patent ambush,\textsuperscript{39} could “over-declaration” be solved by continuous updates? Is “over-declaration” per se a problem requiring measures to be taken at the level of the SDOs? Keeping in mind that SEP declarations are not designed to serve licensing, but to ensure the accessibility of standards, particular caution is required when considering

\begin{itemize}
\item \textsuperscript{36} Id.
\item \textsuperscript{37} See Releases, 3GPP, http://www.3gpp.org/specifications/67-releases (last visited Apr. 13, 2019).
\item \textsuperscript{38} Setting out the EU Approach to Standard Essential Patents, supra note 7, at 4 (“Therefore, rightholders should review the relevance of their declarations at the time of adoption of the final standard (and subsequent significant revisions) and when a final granting decision on the patent is taken.”).
\item \textsuperscript{39} “Patent ambush” occurs when a patent holder withholds information during the development of a standard about a SEP that he holds (or that it has pending, or intends to file) and asserts that patent, after the standard is adopted, in order to extract higher royalties.
\end{itemize}
adding complexities in the declaration process, such as new obligations for stakeholders.

b) Essentiality Checks

The Communication does not expressly clarify whether the recommended essentiality checks should be mandatory, and if so, under which conditions. Who should be entitled to request an essentiality check to be carried out? Would only parties involved in ongoing licensing negotiations or SEP related litigation be entitled to a respective request, or would third parties also have the right to assert such a request (which would most likely make this procedure prone to abuse)?

Furthermore, which is “the right point in time” for performing such checks referred to in the Communication? Should a party be able to request an essentiality check only after the adoption of the “final standard”, or also after a “significant” revision of the standard and/or the final granting decision of the patent, as the Commission suggests with respect to SEP declaration reviews? Insofar, the same questions regarding to the determination of the right point in time posed above in the context of SEP declaration reviews will still need to be answered (for instance, when is the “final standard” adopted, or when does a “significant” revision of the standard take place?).

Apart from the above, since essentiality checks will be performed by third parties, standards regarding to the independence, neutrality, and competence of such bodies will need to be considered. Will entities (even patent offices) entrusted with essentiality checks need some kind of accreditation and if so, who could assume this task and on which basis? In this respect, a coherent approach at an international level seems to be preferable, in order to ensure that uniform standards are applied.

Particularly for safeguarding basic due process, it will be required to establish not only mechanisms allowing the parties involved to be sufficiently heard before a (non-binding) “opinion” on essentiality is rendered, but also mechanisms allowing the party affected (either the SEP holder or the implementer) to challenge the outcomes of such checks, especially, if the outcomes could be made publicly available outside the context of ongoing licensing negotiations or litigation. This would, however, very likely add further complexities to the SEP licensing system, which should not be overlooked, when evaluating the risks and benefits attached to the introduction of essentiality checks.

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40 For instance, essentiality checks offered by the JPO by utilizing the so-called “Hantei” system are available only to parties of a dispute (or disagreement in licensing negotiations). See Manual of “Hantei” (Advisory Opinion) for Essentiality Check, supra note 26, at 4-5.
41 Setting out the EU Approach to Standard Essential Patents, supra note 7, at 5.
42 For example, the JPO makes (non-binding) opinions rendered on the essentiality of patents following the “Hantei” scheme available to the public. See Manual of “Hantei” (Advisory Opinion) for Essentiality Check, supra note 26, at 3, 21.
c) Costs/Benefits

Based on the above, the question of the costs and benefits associated with the introduction of SEP declaration reviews and essentiality checks requires additional attention. The clear commitment of the Commission to ensure proportionality between the respective costs and the expected benefits may be heading in the right direction, but it needs to be fleshed out by further analysis.

The Communication does not explicitly refer to the costs for SEP declaration reviews, in contrast to the costs for essentiality checks. These costs may, however, pose a significant burden on SEP holders, since the recommended repeated review of the declarations (reviews are required at the final adoption of the standard, every subsequent “significant” revision and after the final granting decision on the SEP) will very likely be time-consuming and work-intensive. Any proportionality assessment with respect to the above costs cannot, therefore, take place without considering this parameter.

Furthermore, when approaching proportionality in this context, one ought to consider that SEP holders usually have no other choice than to make their declarations towards SDOs at an early stage of the standards development process (which, in the first place, generates the need for a later review of such declarations). Early declaration is usually encouraged by SDOs’ policies governing the standards development process; it further rules out the risk that the SEP holder will be confronted with the allegation of so-called “patent ambush”, after the standard has been adopted.

In contrast to SEP declaration reviews, the Communication expressly refers to the costs associated with essentiality checks. The validity of the assumptions, on which the Commission based its notion, has, however, to be questioned. Particularly the assumption that the cost of essentiality checks may be “negligible” must be subject to closer scrutiny. Currently, rigorous and reliable essentiality checks produce costs amounting to approximately EUR 10,000.00 per patent family, on average. Considering this and the fact that evidence on the value of the declaration of potential essentiality of patents in FRAND licensing negotiations is missing, a thorough (re-)assessment of the proportionality of this measure seems to be needed. In this context, it is also worth keeping in mind that essentiality checks will probably have a limited impact on cases, in which

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43 See ETSI IPR Policy, supra note 12, at 38, art. 4.1; (requesting patent holders “to inform ETSI of essential IPRs in a timely fashion”).

44 According to the study cited by the Commission in this respect, the costs for evaluating the essentiality of a single patent family by an external advisor amounts to EUR 10,000.00. REGIBEAU ET AL, supra note 29, at 24. According to the same study, “quick internal evaluations” usually cost less (approximately EUR 1,000.00). Id. However, the latter would probably not have an added value in the context of SEP licensing. See Kelce S. Wilson, Designing a Standard Essential Patents (SEP) Program, 53 LES NOUVELLES 202, 206 (Sept. 2018).
SEP users are unwilling to get a license or only under terms under FRAND (also known as “hold-out”).\(^{45}\)

In addition, since the risk of “over-declaration” is mentioned as one of the main reasons for introducing essentiality checks\(^ {46}\), any further considerations on proportionality in this respect should take into account that “over-declaration” is still a highly disputed phenomenon. Indeed, the opinions expressed on the extent of such phenomenon diverge widely. For instance, a study on patents and patent applications declared as essential to the 3GPP and 3GPP2 standards suggested that only approximately 21 percent of the declared SEPs were actually essential.\(^ {47}\) These results have, however, encountered substantial criticism both in terms of objectivity and research methodology.\(^ {48}\) More important than the percentage of over-declaration is rather whether over-declaration is a problem at all, considering it is (1) typically not even considered in SEP licensing negotiations, (2) ensures that innovators are not unjustly accused of patent ambush, and (3) guarantees that users get access on FRAND terms to all declared patents that are or become essential.

III. LICENSING OF SEPs

The Commission believes that negotiations in good faith between SEP holders and implementers are the adequate mechanism for the licensing of SEPs on FRAND terms and conditions.\(^ {49}\) In the Commission’s eyes, such negotiations have, however, proven to be difficult in practice, especially when it comes to the valuation of FRAND.\(^ {50}\) Litigation over FRAND could delay the spread of standardised technologies, particularly in the IoT sector.\(^ {51}\)

A. The Commission’s Recommendations

To address the above challenges, the Commission developed a set of principles that should govern SEP licensing. As a starting point, the Commission points out that there is “no one-size-fit-all solution on what FRAND is.”\(^ {52}\) Moreover, what can be considered FRAND can differ “from

\(^{45}\) See infra Part D.2; see also Setting out the EU Approach to Standard Essential Patents, supra note 7, at 10.

\(^{46}\) Setting out the EU Approach to Standard Essential Patents, supra note 7, at 5.


\(^{49}\) Id.

\(^{50}\) Id.

\(^{51}\) Id.

\(^{52}\) Id.
sector to sector and over time.”

As a rule, (1) “efficiency” considerations, (2) “reasonable license fee expectations” on both sides, and (3) “the facilitation of the uptake by implementers to promote wide diffusion of the standard” should be taken into account when determining FRAND.

On this basis, the Commission laid down the following four principles for the valuation of FRAND:

(1) FRAND has to “bear a clear relationship to the economic value of the patented technology”; this value needs primarily to “focus on the technology itself” and should, in principle, “not include any element resulting from the inclusion of the technology in the standard”. However, in case that the technology is developed “mainly for the standard”, alternative valuation methods should apply, such as the “relative importance of the technology in the standard compared to other contributions in the standard”.

(2) The “present value added” of the patented technology should be considered (that is the value discounted to the time of the conclusion of a licensing agreement). This value should be determined “irrespective of the market success of the product that is unrelated to the patented technology.”

(3) “Continued incentives” for SEP-holders to “contribute their best available technology to standards” must be ensured.

(4) A “reasonable aggregate rate” for the standard, which shall be determined by an assessment of the “overall added value of the technology”, must be taken into account (in order to avoid so-called “royalty stacking”).

Furthermore, in the Commission’s view, the non-discriminatory element of FRAND requires that “similarly situated” implementers are not treated differently by SEP holders. Insofar, the Commission expressly refers to existing case law on this question, namely the decision of the UK High Court of Justice in the matter Unwired Planet v Huawei.

In terms of efficiency (for keeping transaction costs to the necessary minimum), the Commission considers that worldwide licenses

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53 Id.
54 Id. at 8.
55 Setting out the EU approach to Standard Essential Patents, supra note 7, at 6-7.
56 Id. at 7.
57 Id.
58 Id.
59 “Royalty stacking” is defined as “the excessive total royalty that licensees might have to pay when the rights to which they need access are owned by different, independent agents.” See RÉGIBEAU ET AL., supra note 29, at 15.
60 Setting out the EU approach to Standard Essential Patents, supra note 7, at 9.
61 Id.
62 See Unwired Planet v. Huawei, [2017] EWHC (Pat) 711 (Eng.).
are, as a rule, FRAND compatible, particularly with respect to products with a global circulation. On the contrary, country-by-country licensing does not appear to comply with recognised commercial practice.63

Finally, the Commission also encourages SDOs and SEP holders to develop and facilitate the licensing of a large number of implementers in the IoT environment (especially SMEs) via patent pools or other licensing platforms.64 The Commission believes that such mechanisms could have a positive impact on SEP licensing by “offering better scrutiny on essentiality” as well as “more clarity on aggregate licensing fees”, the latter being an additional tool to help avoid “royalty stacking.”65

B. Assessment of the Commission’s Recommendations

In overall terms, the Commission seeks to strike a balance between the opposing interests of the parties involved in SEP licensing. Further debates are expected, however, on several topics, particularly on the principles for the valuation of FRAND set forth by the Commission in the Communication.

i. FRAND Valuation

Particularly valuable is the acknowledgment that there is no “one-size-fits-all” solution to what FRAND is and what can be considered as FRAND can vary “from sector to sector and over time”. By emphasising this understanding, the Commission confirms that flexibility in determining FRAND is one of the key conditions for securing a well-functioning standardisation environment.

The FRAND valuation principles subsequently reflected in the Communication are meant to contribute to the same end. For this purpose, however, a further development and substantiation of these principles will be required in the future, considering the current practice in the SEP licensing ecosystem.

The first principle is a controversial one, holding that the economic value of the patented technology (which must be reflected by FRAND) should as a rule not encompass the value resulting from the incorporation of the technology in the standard. Courts have expressed contrary views on this notion. While courts particularly in the United States have adopted this view in some cases,66 in Europe, the UK High Court of Justice has, for instance, embraced a much different approach. Indeed, in Unwired Planet v Huawei, the Honorable Justice Birss took the view that FRAND should not

63 See Setting out the EU approach to Standard Essential Patents, supra note 7, at 7.
64 Id.
65 Id.
66 See Ericsson v. D-Link, 773 F.3d 1201, 1232 (Fed. Cir. 2014) (“the patentee’s royalty must be premised on the value of the patented feature, not any value added by the standard’s adoption of the patented technology.”).
be regarded “as a scheme which meant the patentee could not appropriate some of the value that is associated with the inclusion of his technology into the standard and the value of the products that are using those standards.”67

This appears to be a more balanced approach: the exclusion of SEP holders from any share of the benefits created downstream the value chain bears the risk of depriving SEP holders of their fair reward for their contribution to the standard, which, in turn, could reduce the incentives to develop and contribute cutting-edge technology to standardisation work.68

By contrast, the notion further expressed in the Communication is not expected to trigger controversy—the notion that alternative valuation methods ought to apply to technologies developed mainly for the standard. This approach appears to be essential for implementing FRAND. This is particularly illustrated by the example of the “carrier aggregation” of LTE: this technology which consists in combining multiple bands of radio spectrum, in order to provide more spectrum to users who, in a certain point in time, have higher needs than others (for instance those using mobile video streaming compared to those using only texting services), was designed for standardised 4G mobile networks and would, therefore, have little market value outside this standard.

As for the second principle contained in the Communication, pursuant to which FRAND should be based on the “present value added” (i.e., the value discounted to the time of the conclusion of the license agreement), no substantial objections are expected to be raised against. As a rule, licensing agreements are long-term agreements and the value of SEPs varies as technology constantly evolves. Having said that, determining FRAND based on discounted value requires a complex calculation that has to consider a series of parameters. Insofar, the mere remark that the “present value added” should be “irrespective of the market success of the product which is unrelated to the patented technology” appears to pose more questions than it answers. Does the Commission suggest that the “market success” in terms of (future) sales of the licensed product should not play a role when determining the discounted value? Or does the Commission mean that, when determining FRAND, the value generated from standardised technology should be isolated from the value added by additional features of the product, which also contribute to making the product attractive to consumers? If so, on which basis shall the respective distinction between the value of the standardised technology and the value of non-standardised product features take place?

There is no need for respective clarification with respect to the third principle laid down in the Communication, according to which FRAND evaluation should “ensure continued incentives for SEP holders to

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67 See Unwired Planet v. Huawei, [2017] EWHC (Pat) 711, [97] (Eng.).
contribute their best available technology to standards.” Insofar, the Commission directs the attention of stakeholders involved in SEP licensing to one of the main pillars of the overall standardisation process, namely the need to ensure a fair and adequate reward for the SEP holders for their contributions to the standard.69 This is an important signal, making clear that the Communication is not intended to question the foundation of the existing standardisation environment.

On the other hand, when approaching the last valuation principle set forth in the Communication, pursuant to which a “reasonable aggregate rate” for the standard should be taken into account when determining FRAND to avoid “royalty stacking,” one should not lose sight of the fact that “royalty stacking” is still a controversial phenomenon.70 Indeed, there are studies indicating that particularly in the telecommunications industry, aggregate cumulative royalties paid by handset manufacturers to SEP holders are quite low. For example, Mallinson calculates they amount to no more than five percent of the handset revenues.71

Interestingly, the Communication does not refer to comparable licenses as a means to value SEPs, although comparable licenses are widely accepted as an adequate instrument not only in many European jurisdictions, but also in other major jurisdictions worldwide.72 In particularly in Europe, the District Court (Landgericht) of Düsseldorf, Germany in the case Saint Lawrence v Vodafone ruled that comparable

69 See ETSI IPR Policy, supra note 12, at art. 3.2; (defines one of the core objectives of standardisation as follows: “IPR holders whether members of ETSI and their affiliates or third parties, should be adequately and fairly rewarded for the use of their IPRs in the implementation of standards and technical specifications[.]”).

70 See Ericsson, 773 F.3d at 36. In a case, in which the implementer raised a defence based on the “royalty stacking” argument, the U.S. District Court of the Eastern District of Texas found that due to lack of evidence, “[t]he best word to describe Defendants’ royalty stacking argument is theoretical.”


72 Laser Dynamics, Inc. v. Quanta Comp., Inc., 694 F.3d 51, 79 (Fed. Cir. 2012). In the United States, the Court of Appeals for the Federal Circuit has emphasized that “actual licenses to the patented technology are highly probative as to what constitutes a reasonably royalty for those patent rights because such actual licenses most clearly reflect the economic value of the patented technology in the marketplace.” See [IWNCOMM v. Sony], 2017 BEIJING INTELLECTUAL PROPERTY COURT (Beijing Intellectual Property Ct.) (China). In China, the Beijing Intellectual Property Court ruled for the SEP holder in a case involving SEP licensing using comparable agreements to determine FRAND. See Ericsson v. Micromax, High Court of Delhi, Judgment dated 12th November 2014. In India, the High Court of Delhi similarly based its royalty calculation on 26 comparable licenses the SEP holder had signed with other Indian parties.
licensing agreements represent an “important indicator” of the FRAND conformity of the licensing terms offered to an implementer by the SEP holder.\textsuperscript{73} In the UK, the High Court of Justice in the matter \textit{Unwired Planet v Huawei} also used comparable licenses as basis for its FRAND calculation, since they represent “the best evidence of the value of the portfolio in issue.”\textsuperscript{74}

Finally, the clarification that discrimination cannot occur when licenses granted to companies doing business in different sectors (or companies following different business models) differ from one another, is particularly valuable for the interpretation of the “non-discrimination” element of FRAND.\textsuperscript{75} In this respect, it is also interesting to note that, by citing \textit{Unwired Planet v Huawei}, the Commission appears to also adopt the view followed by the Honorable Justice Birss—that the FRAND undertaking does not force the SEP holder to offer the same FRAND terms as that agreed with another similar situated licensee, unless the difference would distort competition between the licensees affected (\textit{i.e.} the court favoured a “soft-edged non-discrimination”).\textsuperscript{76}

\textbf{ii. Licensing Platforms}

By encouraging the creation of patent pools and licensing platforms particularly with respect to the evolving IoT, the Commission seems to have met the pulse of the times. Indeed, in the last years, licensing platforms have emerged, especially in the IoT field. A good example is Avanci, a platform offering a fixed royalty model for SEPs regarding to the 2G, 3G, and 4G cellular standards in terms of a one-stop solution.\textsuperscript{77}

Licensing platforms allowing implementers, and particularly new market entrants, to have a transparent access to cutting-edge standardized technology needed for the development of their products and services appear to have the potential to improve the efficiency of SEP licensing to a significant extent, as the Commission suggests.\textsuperscript{78}

\section*{IV. ENFORCEMENT OF SEPs}

The Commission holds the view that a clear, balanced, and predictable framework for the enforcement of SEPs can positively impact SEP licensing negotiations (especially by clarifying to the parties to such

\textsuperscript{73} Landgericht [LG] [District Court of Düsseldorf] Mar. 31, 2016, Case No. 4a O 73/14, para. 273, 2016 (Ger.).

\textsuperscript{74} Unwired Planet v. Huawei [2017] EWHC 711, [170] (Eng.).

\textsuperscript{75} See \textit{Setting out the EU Approach to Standard Essential Patents}, \textit{supra} note 7, at 7.

\textsuperscript{76} Unwired Planet v. Huawei [2017] EWHC 711, [501] (Eng.).


\textsuperscript{78} See \textit{Setting out the EU Approach to Standard Essential Patents}, \textit{supra} note 7, at 7.
negotiations the consequences of their behaviour) and, in turn, promote the further spread of standardised technologies.  

A. The Commission’s Recommendations

The Commission’s recommendations regarding to the enforcement of SEPs revolve mainly around the well-balanced framework established by the Court of Justice of the European Union (CJEU) in the matter Huawei v ZTE (Huawei judgment). In the Huawei judgment, the Court set forth affirmative conduct obligations for both parties involved in SEP licensing negotiations; meeting these obligations turns on whether injunctive relief will be available to SEP holders and whether implementers can effectively defend themselves against an injunction request. Following the Court’s ruling, national courts in Europe have been providing further guidance to stakeholders by interpreting and clarifying the Huawei framework.

The Commission took up this national jurisprudence and expressed the following views on core obligations established by the Huawei judgment:

- SEP holder’s obligation to make a FRAND offer: SEP holder’s offer must contain “clear explanations” on (1) the essentiality of its patent(s) for a standard, (2) the allegedly infringing products of the SEP user, (3) the proposed royalty calculation, and (4) the non-discriminatory element of FRAND. Furthermore, according to “recognised commercial practices,” the SEP holder’s offer may refer to a worldwide portfolio license, provided that the portfolio “is limited to all SEPs that the implementer needs to produce or market its products.”

- Implementer’s obligation to make a FRAND counter-offer: The implementer’s counter-offer must (1) be concrete and specific (meaning that it cannot be “limited to contesting the SEP holder’s offer and a general reference to third-party determination of the royalty”), (2) contain information on the “exact use” of the standard in the specific product, (3) cover all SEPs which the implementer needs for...

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79 Id. at 9.
81 See Setting out the EU Approach to Standard Essential Patents, supra note 7, at 9.
82 A comprehensive library of summaries of decisions handed down by national courts in Europe after the Huawei judgement is provided by 4iP Council, a non-profit European organisation focusing on rigorous empirical research on intellectual property and innovation, available at https://caselaw.4ipcouncil.com/. For an overview of the respective case law, see also Claudia Tapia & Spyros Makris, Negotiating SEP Licences in Europe After Huawei v ZTE: Guidance from National Courts, Managing Intellectual Property, May 2018, at 21-29.
83 Id. at 10-11.
84 Id. at 10.
85 Id. at 10.
86 Id.
its products/services (and not be limited to individual patents)\(^{87}\) and (4) be made in a timely manner (whereas the reasonable time frame shall be determined on a case-by-case basis, mainly based on the quality and the detail of both the information provided by the SEP holder in his initial offer and the information on the essentiality of the patent(s) in question generally available, for instance via SEP declaration systems maintained by SDOs).\(^{88}\)

- **Implementer’s obligation to provide security**: The amount of security to be provided by the implementer as a protection against an injunction, should be determined at a level that “discourages patent hold-out strategies.”\(^{89}\)

Besides the above, the Commission reminds that in assessing the enforceability of SEPs by means of injunctive relief, courts are bound to proportionality considerations derived from Article 3(2) of the Directive 2004/48/EC\(^{90}\) on the enforcement of Intellectual Property Rights (IPRs).\(^{91}\) The Commission further confirms its commitment to promote the use of Alternative Dispute Resolution (ADR) mechanisms, such as mediation and arbitration, in the context of SEP related disputes, particularly for the benefit of SMEs.\(^{92}\)

Regarding the enforcement of SEPs by non-practicing Patent Assertion Entities (PAEs) the Commission believes that no additional action is required at the present; PAEs should be treated in the same manner as any other SEP holder.\(^{93}\) The Commission takes the view that European litigation systems have sufficient safeguards to absorb potential harmful effects of the activities of PAEs.\(^{94}\) Nevertheless, the Commission will still monitor the impact of PAEs in the European market.\(^{95}\)

**B. Assessment of the Commission’s Recommendations**

By embracing the *Huawei* judgment, which imposes obligations for conduct on both SEP holders and implementers, the Commission implicitly recognises that FRAND is a two-way street. This clarification is very valuable, since the Commission had previously followed a rather one-

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\(^{87}\) *Id.* at 11.

\(^{88}\) See *Setting out the EU Approach to Standard Essential Patents*, supra note 7, at 10.

\(^{89}\) *Id.*


\(^{91}\) See *Setting out the EU Approach to Standard Essential Patents*, supra note 7, at 10.

\(^{92}\) *Id.* at 11.

\(^{93}\) *Id.* at 11-12.

\(^{94}\) *Id.* at 11.

\(^{95}\) *Id.* at 12.
sided approach by focusing mainly on SEP holders’ obligations and by only raising risks for competition of a theoretical hold-up.

In its attempt to flesh out the obligations established by the *Huawei* judgment, the Commission refrained from any regulatory “corrections” to the case law rendered by the national courts of the EU member states following the Court’s ruling. Moreover, the Commission expressly adopted the views taken by national courts, for instance, the notion expressed by the UK High Court of Justice in *Unwired Planet v Huawei* that worldwide portfolio licensing, as a rule, complies with FRAND.

Furthermore, reflecting the balance between the interests of SEP holders and implementers struck by the CJEU in the *Huawei* judgment, the Communication recognised for the first time both hold-up and hold-out concerns by recommending setting the amount of security to be paid by the implementer for the use of SEPs “at a level that discouraged hold-out strategies.” The fact that the Commission equally refers to both hold-up and hold-out as risks attached to SEP licensing is important, since the patent hold-up theory had overshadowed hold-out concerns to a great extent, although it has been hardly backed-up by substantial empirical evidence.

Concerns that an imbalance in the perception of the hold-up and hold-out risks exists, have been recently articulated also by the US Department of Justice.

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97 See Joaquin Almunia, Competition Policy for the Post-Crises Era, Lewis Bernstein Memorial Lecture (Mar. 30 2013). In 2013, for example, the former Vice President of the European Commission responsible for Competition policy stated that “[Any company that holds these] standard essential patents can effectively hold up the entire industry with the threat of banning the products of competitors from the market.” Joaquin Almunia, Introductory Remarks on Motorola and Samsung Decisions on Standard Essential Patents (Apr. 29 2014). In 2014, Almunia said that seeking injunction “may be” abusive if there is a FRAND commitment and the potential implementer is merely expressing its willingness to enter into a FRAND license.

98 *Unwired Planet v. Huawei* [2017] EWHC 711, [535] (Eng.).

99 The FRAND conformity of worldwide portfolio licenses has been recognized also by further courts in Europe. See, e.g., *Pioneer v. Acer*, Landgericht (LG) [District Court of Mannheim] Jan. 8, 2016, Case No. 7 O 96/14, [119] (Ger.), *Saint Lawrence v. Vodafone*, Landgericht (LG) [District Court of Düsseldorf] Mar. 31, 2016, Case No. 4a O 73/14, [310] (Ger.).

100 See *Setting out the EU approach to Standard Essential Patents*, supra note 7, at 10.


102 Makan Delrahim, Assistant Attorney General, Remarks at the USC Gould School of Law’s Center for Transnational Law and Business Conference, Nov. 10, 2017 (pointing out that “too often lost in the debate over the hold-up problem is recognition of a more serious risk: the hold-out problem.”).
V. RELATIONSHIP BETWEEN STANDARDISATION AND OPEN SOURCE

Finally, the Commission also expresses its basic opinion on the relationship between standardisation and Open Source. The Commission argues that both standards and Open Source projects can profit from an increased interaction, irrespective of the differences that exist between these models.\textsuperscript{103} This can result in an acceleration of the uptake of advanced technologies, from which particularly SMEs can profit. The Commission will, therefore, promote a more effective integration between standards and Open Source projects by several measures, including funding studies on relevant topics.\textsuperscript{104}

The Commission’s views on the overall positive effects, which an increased interaction between Open Source projects and standards development within SDOs can produce, mirror already ongoing efforts in this respect. A key point for promoting an effective collaboration between Open Source and SDO driven standardisation, will, however, be ensuring that the IPR position of innovators contributing their technology to the standard can be maintained and not be compromised. Concrete suggestions on how to achieve this goal are missing in the Communication. Insofar, it will be interesting to see, whether the comprehensive research activities in this field announced by the Commission will, in the future, result in tangible recommendations regarding to these questions.

VII. CONCLUSION

The Communication attempts to embrace an overall balanced approach mainly on three key issues regarding to standardisation driven by SDOs: the transparency of the SEP declaration framework supporting the standardisation process as well as the licensing and enforcement of SEPs. Although non-binding, the recommendations laid down in the Communication will guide – but also trigger – further discussions with respect to the above issues among stakeholders involved in standardisation.

Looking particularly at the practical implementation of the Commission’s recommendations on the transparency of the SEP declaration process, several aspects appear to need further scrutiny. In this context, the Commission focuses on three measures: the operational improvement of declaration databases maintained by SDOs, the introduction of SEP declaration reviews and the introduction of (third party) essentiality checks. With respect to all three measures, the balance between costs and benefits should be given further attention. The Commission’s general commitment to ensure proportionality needs to be fleshed out, with a closer analysis of both the costs associated with the introduction of new measures and the

\textsuperscript{103} See Setting out the EU Approach to Standard Essential Patents, supra note 7, at 12.
\textsuperscript{104} Id.
potential complexities such measures could generate within the existing standardisation ecosystem. For the latter, the legal framework for the implementation of SEP declaration reviews and essentiality checks needs to be developed, in order to be able to adequately assess the practical impact of these measures.

Besides that, a closer debate appears to be needed especially with respect to the following two principles suggested by the Commission for the valuation of FRAND: First, the recommended exclusion of the value resulting from the incorporation of patents in a standard requires special consideration, since it is based on a notion which is still controversial in legal theory and jurisprudence. Second, the Commission’s view that a “reasonable aggregate rate” for the standard should be taken into account when determining FRAND also needs further elaboration, not least due to the high degree of complexity of the questions arising in this respect.

On the other hand, the Commission’s recommendations regarding to the enforcement of SEPs offer clear guidance to parties involved in SEP licensing. By avoiding the temptation of regulatory “corrections” to the solid case law handed down by national courts in the EU following the Huawei judgment of the CJEU as well as by attributing, for the first time, equal weight to both hold-up and hold-out concerns, the Commission strengthens the framework for the licensing of SEPs in Europe.