Information Technology and Innovation Foundation
700 K Street N.W., Suite 600
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Before the

DEPARTMENT OF JUSTICE

Washington, D.C.

In the Matter of:	
Comments on Draft Policy Statement on	)
Licensing Negotiations and Remedies for	)
Standards-Essential Patents Subject to Voluntary	)
F/RAND Commitments	

Comments of ITIF

January 25, 2022

The DOJ's Draft Policy Statement on Licensing Negotiations And Remedies For Standards-Essential Patents Subject to Voluntary F/RAND Commitments

The Information Technology and Innovation Foundation (ITIF) is pleased to submit these comments in response to the Department of Justice's request for comment on the Draft Policy Statement on Licensing Negotiations and Remedies for Standards-Essential Patents Subject to F/RAND Commitments. ITIF is an independent, nonprofit, nonpartisan research and educational institute focusing on the intersection of technological innovation and public policy. Recognized by its peers in the think tank community as the global center of excellence for science and technology policy, ITIF's mission is to formulate and promote policy solutions that accelerate innovation and boost productivity to spur growth, opportunity, and progress. The Schumpeter Project on Competition Policy at ITIF advances a modern approach to competition policy that elevates innovation to become a central concern for antitrust enforcement. The Schumpeter Project's mission advocates for a dynamic competition policy in which innovation is a central concern for antitrust enforcement, not a secondary consideration. The Schumpeter Project's goal is to reconceive antitrust policy in a new framework that links innovation to competition for the benefit of consumers, innovative companies, the economy, and society.

INTRODUCTION

President Biden's executive order on competition issued in July 2021 asked federal agencies "to avoid the potential for anticompetitive extension of market power beyond the scope of granted patents, and to protect standard-setting processes from abuse…"[1] More specifically, the presidential order asked the Attorney General and the Secretary of Commerce, "to consider whether to revise their position on the intersection of the intellectual property and antitrust laws, including by considering whether to revise the Policy Statement on Remedies for Standards-Essential Patents Subject to Voluntary F/RAND Commitments issued jointly by the Department of Justice, the United States Patent and Trademark Office, and the National Institute of Standards and Technology on December 19, 2019."[2]

Pursuant to the presidential executive order, the Department of Justice, the U.S. Patent and Trademark Office, and the National Institute of Standards and Technology (the Agencies) requested public comments on December 6, 2021, on the Draft Policy Statement on Licensing Negotiations and Remedies for Standards-Essential Patents Subject to F/RAND Commitments (the Draft Policy Statement).[3]

The Draft Policy Statements aims at fostering "efficient licensing" between standard-essential patent (SEP) holders and implementers, noting the risks of opportunistic behaviors from both parties.[4] The Draft Policy Statement codifies a regrettable trajectory over the last decade whereby courts have gradually and consistently emphasized the hold-up problem while discarding the economic rationale for injunctive relief by SEP holders.[5]

The Draft Policy Statement reverts to the 2013 policy statement and brushes away the 2019 policy statement which contributed to a rebalancing from the implementers' concerns to SEP holders' concerns.[6] The Draft Policy Statement fails to contribute to the much-needed strengthening of intellectual property (IP) rights by overlooking the benefits and availability of injunctive relief.[7]

Additionally, despite noticeable efforts to delineate such a framework, the Draft Policy Statement fails to provide clear guidance on a good-faith framework under fair, reasonable, and non-discriminatory (FRAND) terms.

In other words, the Draft Policy Statement is the wrong approach at the wrong time. It is the wrong approach because it further weakens IP rights since the unavailability of injunctive relief tends to further shift away from the protection of patents from a property regime toward a liability regime: Injunctive relief becomes increasingly unavailable as agencies and courts increasingly accommodate for technological trespasses.

The Draft Policy Statement comes at the wrong time. First, the so-called "New Madison Approach" articulated through the 2019 policy statement has not yet produced its effect and the Agencies readily exacerbate the policy swings.[8] This legal uncertainty justified by President Biden's executive order on competition is nevertheless detrimental for market actors. Sufficient time needs to pass before the 2019 policy statement can be considered to be a misguided approach: Lack of such evidence cautions from stripping away the 2019 policy statement.

Second, the European Commission and the United Kingdom are currently engaging in revised policy positions with respect to SEP licensing under FRAND commitments.[9] Given the need to prevent regulatory divergence across major patent jurisdictions, and given the need to make full use of the EU-U.S. Joint Technology Competition Policy Dialogue, the Agencies must actively engage with transatlantic partners to adopt a joint approach to reach principles of efficient licensing whereby strong protection of IP rights fosters innovation and promotes dynamic competition for the welfare of global market actors and consumers across these jurisdictions.[10]

Finally, the Draft Policy Statement, by weakening IP rights and providing a further economic rationale for so-called "efficient infringement" of SEPs by opportunistic implementers, contributes to reward (and not sanction) for foreign patent violators. In short, in the global race for technological leadership where patent protection determines entrepreneurial competitiveness, the Draft Policy Statement represents a considerable policy gift from the Agencies in favor of, say, Chinese patent infringers who now know that, at worst, they may pay royalties that they would have paid had they complied with FRAND terms.[11] Therefore, the Draft Policy Statement contributes to making American ingenuity an engine of patent infringement, a place prone to patent violations favoring foreign competing powers.

Moreover, the Draft Policy Statement fails to provide the necessary clarification needed from the 2019 policy statement regarding what constitutes "good faith" in FRAND negotiations–and in particular, what constitutes a “willing” or “unwilling” licensee. In short, because it represented the right approach and policy swings without evidence must be avoided, the 2019 policy statement needed mere clarifications and not repeal, contrary to what President Biden’s executive order suggested. The Agencies should provide an alternative statement that builds upon the 2019 policy statement to clarify the definition of a “willing licensee” as part of FRAND negotiations.

Consequently, the Agencies need to defer the adoption of the Draft Policy Statement and work together with European and United Kingdom counterparts to clarify the details of FRAND negotiations compliant with the “good faith” principle.

More generally, both consumers and firms benefit from interoperability standards. When network effects are present, interoperability between the products of different firms increases consumers’ valuation of the product. Consumers also benefit from increased price competition when there are multiple sellers of compatible products. Interoperability standards benefit firms by taking advantage of scale economies brought about by a larger market.

The benefits from higher consumer valuations and scale economies incentivize firms to make their products compatible and, as a result, inefficient de facto standards may arise. Coordination problems with de facto standards may lead to delay in adopting beneficial technologies or to adopting inferior technologies when firms are wary of adopting risky new technologies or do not want to be stranded supporting old technology.[12] Voluntary, consensus-based standards development organizations (SDOs) can resolve the coordination problems associated with de facto standards by identifying important new innovations and encouraging their adoption.

In addition to resolving the coordination problem associated with de facto standards, SDOs also encourage follow-on innovation. All patents, by their very nature, are intended to disseminate knowledge, and SEPs are no exception. Many SDOs require their participants to disclose SEPs that may read on standards under development and to make licenses to those patents available on FRAND terms. This means that these disclosed patented technologies are largely available to others to develop follow-on innovations. One measure of the effect of SDOs’ liberal licensing policies on follow-on innovation is the forward citations to disclosed patents (i.e., new patents citing disclosed patents as prior art). Marc Rysman and Timothy Simcoe find that patent disclosure to an SDO increases the patent’s forward citations by 19-47 percent, suggesting SDOs are an essential factor in follow-on innovation.[13] Given the importance of SDOs for identifying and endorsing important innovations and encouraging follow-on innovation, the Agencies’ guidance should discourage opportunistic conduct related to FRAND licensing disputes that threaten this innovation.

Among the 11 questions identified by the Agencies for comments, the present comments focus on questions 1, 2, 7, and 9, namely:

"1.Should the 2019 Policy Statement on Remedies for Standards-Essential Patents Subject to Voluntary F/RAND Commitments be revised?

2. Does the draft revised statement appropriately balance the interests of patent holders and implementers in the voluntary standards process, consistent with the prevailing legal framework for assessing infringement remedies?

7.Will the licensing considerations set forth in the draft revised Statement promote a useful framework for good-faith F/RAND licensing negotiations? In what ways could the framework be improved? How can any framework for good-faith negotiations, and this framework in particular, better support the intellectual property rights policies of standard-setting organizations?

9. The draft revised statement discusses fact patterns intended to indicate when a potential licensee is willing or unwilling to take a F/RAND license. Are there other examples of willingness or unwillingness that should be included in the statement?"[14]

Question 1: The 2019 Policy Statement on Remedies for Standard Essential Patents Subject to Voluntary F/RAND Commitments Should be Revised

a. Standard Antitrust Analysis Applies to Conduct Involving IP Including SEPs

The 2019 policy statement should be revised to affirm that standard antitrust analysis applies to conduct involving IP including SEPs. The 2019 policy statement provides contradictory guidance about whether antitrust law applies to FRAND licensing disputes. Footnote 3 suggests that coordinated conduct by licensees to depress royalties for SEPs may cause competitive harm while footnote 9 cautions against interpreting the 2013 policy statement to mean that antitrust law applies to FRAND disputes.

Standard antitrust analysis applies to conduct involving IP and especially to conduct involving SEPs due to the nature of standards development. In the development of voluntary consensus standards, the coordination among firms that might otherwise be rivals is allowed, even encouraged, due to the consumer benefits arising from standardization. However, these benefits may not be realized if SEP holders are allowed to exercise the full extent of the market power they attain through the standardization of their patented technologies. Commitments SEP holders make to SDOs to license their SEPs on FRAND terms are intended to limit the exercise of this market power. When SEP holders abuse this commitment by, for example, engaging in deception or reneging on their commitment to make licenses available to willing licensees, antitrust law should apply.

b. U.S. Case Law Supports the Application of Antitrust to Standard-Setting Abuses

U.S. courts have affirmed that antitrust law applies to abuses of the standard setting process and of FRAND commitments. In *American Soc'y of Mech. Eng'rs v. Hydrolevel* 456 U.S. 556 (1982), the Supreme Court noted that, "… a standard-setting organization … can be rife with opportunities for anticompetitive activity."[15] In *Allied Tube & Conduit Corp. v. Indian Head, Inc.* 486 U.S. 492 (1988), the Supreme Court called out the potential for abuse and the importance of safeguards in the standard-setting process noting that,

> the hope of procompetitive benefits depends upon the existence of safeguards sufficient to prevent the standard-setting process from being biased by members with economic interests in restraining competition. An association cannot validate the anticompetitive activities of its members simply by adopting rules that fail to provide such safeguards.[16]

The U.S. Court of Appeals for the Third Circuit recognized in *Broadcom Corp. v. Qualcomm Inc.*, No. 06-4292 (3d Cir. 2007) that abuse of a FRAND commitment can constitute anticompetitive conduct holding that,

> (1) in a consensus-oriented private standard-setting environment, (2) a patent holder's intentionally false promise to license essential proprietary technology on FRAND terms, (3) coupled with an SDO's reliance on that promise when including the technology in a standard, and (4) the patent holder's subsequent breach of that promise, is actionable anticompetitive conduct,[17]

and the U.S. Court of Appeals for the D.C. Circuit held in *Rambus v. FTC*, No. 07-1086 (D.C. Cir. 2008) that deception before a SDO may constitute a Sherman Act offense stating that, "… if Rambus's more complete disclosure would have caused JEDEC [Joint Electron Device Engineering Council] to adopt a different (open, non-proprietary) standard, then its failure to disclose harmed competition and would support a monopolization claim."[18]

c. SEP Holders Seeking Injunctions or Exclusions Orders Against Willing Licensees Risk Antitrust Liability

One way in which SEP holders may abuse their FRAND commitment to an SDO is by seeking an injunction or an exclusion order at the International Trade Commission against implementers who are willing to take a FRAND license. The FRAND commitment is intended to limit the exercise of market power arising from the standards development process by ensuring that the standardized technology will be available to implementers. In making the commitment, SEP holders agree that they are willing to accept a FRAND royalty for the use of their patented technology. That is, the SEP holders agree that money will make them whole. Therefore, seeking an injunction or an exclusion order against a company that is willing to take a FRAND license goes against this commitment and may violate the antitrust laws. However, such limited relief must only be applied in cases involving a willing licensee. This requires a distinction to be made between willing and unwilling licensees, including defining what it means to be a willing licensee.

In addition to the case law noted above, FTC actions make clear that seeking an injunction or an exclusion order with respect to SEPs encumbered by a FRAND commitment may constitute an antitrust violation. In 2012, the FTC entered into a consent agreement with Robert Bosch GmbH (Bosch) to settle charges that Bosch's subsidiary, SPX Service Solutions, breached, "its commitment to offer licenses [to willing licensees of] its standard essential patents pursuant to its obligations under 1.14 of the SAE Policy Manual by seeking injunctive relief over the same standard-essential patents."[19] Soon thereafter in 2013, the FTC entered into a consent agreement with Google, Inc. and Motorola Mobility, LLC (Motorola) to settle similar charges to those in Bosch. The FTC alleged that Google, through Motorola, breached, "its commitments to standard-setting organizations to license its standard essential patents on fair, reasonable, and nondiscriminatory terms," and that, "Google violated its FRAND commitments by seeking to enjoin and exclude willing licensees of its FRAND-encumbered SEPs."[20] In both Bosch and Google, the FTC alleged that the conduct by these firms constituted an unfair method of competition in violation of Section 5 of the FTC Act. These FTC enforcement actions serve as a warning to SEP holders that they may be subject to antitrust liability for seeking an injunction or exclusion order in cases involving a willing licensee of their SEPs.

d. Limiting Anticompetitive Conduct Related to Standardization is Important for Innovation

Limiting anticompetitive conduct related to standardization is important for innovation. SDO IP disclosure policies and FRAND commitments are intended to limit anticompetitive abuses of the standards development process. When SEP holders breach their FRAND commitments by seeking injunctions against willing licensees or engaging in other abuses of their FRAND commitments, they jeopardize future innovation by chilling participation in formal standards development.

As noted above, voluntary, consensus SDOs are important for identifying and endorsing important innovations and for encouraging follow-on innovation. If current and future SDO participants turn away from formal standards development, we may be left with inferior de facto standards or with closed, proprietary standards that do not encourage follow-on innovation. Therefore, to protect and promote innovation, the Agencies should make clear in their guidance that standard antitrust analysis applies to conduct involving SEPs.

Questions 2, 7, and 9: The Draft Policy Statement Provides Insufficient Guidance on What Constitutes a Willing Licensee

a. SEP Holders Must Have All Available Remedies to Combat Efficient Infringement by Standards Implementers

While standard antitrust analysis should apply to anticompetitive conduct by SEP holders, opportunistic behavior by implementers of standards remains a serious concern. Given that the royalties due to SEP holders are limited by their FRAND commitments, some implementers see little benefit to reaching a negotiated license agreement with SEP holders. Furthermore, if a SEP holder is forced to litigate to obtain the FRAND royalty, there is some probability the patents asserted in litigation may be found invalid–in which case the implementer pays nothing. Consequently, some implementers engage in efficient infringement and "hold-out" paying royalties for as long as possible knowing that, by acting the part of a willing licensee, they can avoid enhanced damages and never be required to pay more than a FRAND rate.[21]

Some implementers engage in licensing tactics to give their conduct a veneer of willingness to avoid the treble damages of willful infringement but are really intended to delay negotiations and avoid taking a license. Some of the tactics identified by Bowman Heiden and Nicolas Petit (at p. 220) from their interviews of industry participants include: (1) insisting on a patent-by-patent negotiation when portfolio licensing is the norm; (2) insisting on a country-specific license when the implementer operates in multiple countries; (3) routinely postponing negotiations; (4) sending representatives without authority to conclude a license; and (5) agreeing to a neutral third-party determination of royalties but unduly delaying the process.[22] By engaging in efficient infringement, implementers force SEP holders into accepting lower, potentially below-FRAND rates, to avoid the cost of litigating patent-by-patent in multiple jurisdictions around the globe.

SEP-holders must have all available remedies to combat efficient infringement. This means that SEP holders should be able to seek injunctions against efficient infringers to bring these recalcitrant implementers to the bargaining table. However, this does not mean that SEP holders should be entitled to an injunction against truly willing licensees to resolve an honest dispute about the appropriate FRAND rate.

b. The Antitrust Liability That Attaches to Standard-Setting Abuses Necessitates Clarification of Willing Licensee

Given the antitrust liability that attaches to abuses of the standard setting process and FRAND commitments–especially with respect to seeking an injunction against willing licensees of SEPs–it is imperative that the agencies clarify what constitutes a willing licensee. Unfortunately, the Draft Policy Statement does not provide sufficient guidance about how implementers demonstrate their willingness to take a license. The Draft Policy Statement provides a catalog of actions that, when any one of them is undertaken by an implementer, do not demonstrate that the implementer is unwilling to take a license. To take one as an example, we agree that questioning the validity of the patents should not be construed to mean that the implementer is unwilling. However, challenging the validity of the patents also should not be construed to mean that the implementer is a willing licensee.

The Draft Policy Statement provides examples of how an implementer might act in good faith during licensing negotiations (i.e., demonstrate willingness). In particular, good faith actions include: "1) accepting the [SEP holder's] offer; (2) making a good-faith F/RAND counteroffer; (3) raising specific concerns about the offer's terms, including with respect to validity and infringement of the patents; (4) proposing that contested issues be resolved by a neutral party; or (5) requesting that the SEP holder provide more specific information reasonably needed to evaluate the offer." However, these examples are insufficient to demonstrate willingness–particularly when they are not accompanied by a commitment to be bound by a neutral third-party decision-maker in the event of disagreement. Efficient infringement continues to take place despite implementers undertaking one or more of the Draft Policy Statement's "good faith" actions.

Apple's conduct in the early 2010s in its licensing dispute with Motorola is one example of efficient infringement despite appearances of good faith conduct. As part of ongoing litigation Motorola commenced against Apple in the ITC, Apple sought a declaratory judgment in the U.S. District Court for the Western District of Wisconsin that, among other things, Motorola had breached its contracts with the relevant SDOs and Motorola's licensing offer was not FRAND. In order to decide whether Motorola had breached its contractual commitments, Judge Crabb believed it would be necessary to determine the FRAND rate. However, prior to making that determination, Apple informed the court that it would not be willing to pay more than $1 per device and that it did not intend to be bound by any rate that the court determined. Given that a declaration of a FRAND rate would have no practical effect due to Apple's unwillingness to be bound by the court's determination, Judge Crabb declined to decide a FRAND rate and dismissed Apple's case.[23] While Apple "proposed that contested issues be resolved by a neutral party" as suggested by the Draft Policy Statement, Apple clearly was not acting in good faith during its licensing dispute with Motorola because Apple was unwilling to accept a court-determined rate.

The risk of efficient infringement continues today as evidenced by recent disputes heard in European courts where European case law provides more explicit guidance on licensing conduct. The conduct at issue in these disputes satisfies the Draft Policy Statement criteria for good faith action and yet the implementers in these disputes were clearly not acting in good faith. In Philips's recent licensing dispute with Asustek, Asustek's requests for Philips to "provide more specific information reasonably needed to evaluate the offer" were merely pretextual as Asustek did not involve the technical experts necessary to evaluate Philips's portfolio in the licensing discussions.[24] Similarly, in Sisvel's recent licensing dispute with Haier, Haier's request for "more specific information" to include the production of claim charts for all of Sisvel's patents nearly three years after Sisvel notified Haier of its infringement cannot be viewed as good faith conduct either.[25]

c. The Draft Policy Statement Should Provide More Explicit Guidance on What Constitutes a Willing Licensee

Insufficient guidance on what it means to be a willing licensee effectively limits the remedies SEP holders have available to address efficient infringement. The threat of antitrust liability prevents SEP holders from seeking the injunctions that are necessary to bring efficient infringers to the bargaining table. Consequently, SEP holders are under-compensated for their patented technologies. Royalties from patent licensing compensate patentees for their prior R&D investments and fund future innovation. Unfairly limiting appropriate compensation to SEP holders threatens the viability of future innovation.

The Draft Policy Statement does not go far enough in defining what it means to be a willing licensee. As noted above, the Draft Policy Statement's non-exhaustive list of examples to demonstrate good-faith conduct is not sufficient to pin down willingness and does little to address the problem of efficient infringement. Therefore, the Draft Policy Statement should provide clear, specific steps SEP holders and implementers must take to demonstrate good-faith conduct as the European Union Court of Justice did in its 2015 *Huawei/ZTE* decision. Unfortunately, the Draft Policy Statement does not provide the clear guidance necessary to limit opportunistic conduct in FRAND licensing disputes.

CONCLUSION

The Agencies' Draft Policy Statement must minimize the potential for opportunistic behaviors from both SEP holders and implementers as opportunism generates considerable transaction costs and decreases welfare by harming consumers and deterring innovation. The 2019 policy statement rightly focused on the overlooked problem of holdout—namely, efficient infringement of SEP holders' rights.

However, the 2019 policy statement required further clarification regarding what constitutes a willing licensee and, more generally, what "good faith" means under FRAND negotiations. The Draft Policy Statement provides insufficient clarification and, more dramatically, reverts back to the 2013 policy statement which made injunctive relief unavailable for SEP holders because the problem of efficient infringement of SEPs was then downplayed.

In a global race for innovation, strong protection of IP rights remains essential to bolstering the American innovation economy where companies of all sizes can thrive through robust protection of IP rights and where opportunistic behaviors are not only punished but also deterred. The Draft Policy Statement, unfortunately, ignores this IP rights imperative and provides no tangible way forward for efficient licensing, but rather a way backward to the previous, and largely controversial, emphasis of patent hold-up without due consideration for patent hold-out. The Agencies need to build upon the approach of the 2019 policy statement and further define willing licensees.

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[1] White House, "Executive Order on Promoting Competition in the American Economy", July 9, 2021, https://www.whitehouse.gov/briefing-room/presidential-actions/2021/07/09/executive-order-on-promoting-competition-in-the-american-economy/ , Section 5(d).

[2] *Id.*

[3] Department of Justice, "*Public Comments Welcome on Draft Policy Statement on Licensing Negotiations and Remedies for Standards-Essential Patents Subject to F/RAND Commitments*", December 6, 2021, https://www.justice.gov/opa/pr/public-comments-welcome-draft-policy-statement-licensing-negotiations-and-remedies-standards ; USPTO, DOJ, NIST, "*Draft Policy Statement on Licensing Negotiations and Remedies for Standards-Essential Patents Subjects to Voluntary F/RAND Commitments*", December 6, 2021, https://www.justice.gov/opa/press-release/file/1453826/download

[4] "Efficiency" in licensing appears to be a new objective compared to the 2019 policy statement. Compare "as a general matter, to promote efficient licensing and help reduce the costs and other burdens associated with litigation, SEP holders and potential SEP licenses should engage in good-faith negotiation to reach F/RAND license terms" with "as a general matter, to help reduce the costs and other burdens associated with litigation, we encourage both standard-essential patent owners and potential licensees of standards-essential patents to engage in good-faith negotiations to reach F/RAND license terms." Respectively, 2021 draft policy statement, p.5 and USPTO, DOJ, NIST, "*Policy Statement on Remedies for Standards-Essential Patents Subject to Voluntary F/RAND Commitments",* December 19, 2019, p.4 (hereafter "2019 policy statement"), https://www.justice.gov/atr/page/file/1228016/download

[5] The 2021 policy statement itself acknowledges that "injunctive relief for a SEP subject to a F/RAND commitment has rarely been granted", see Department of Justice, "*Public Comments Welcome on Draft Policy Statement on Licensing Negotiations and Remedies for Standards-Essential Patents Subject to F/RAND Commitments*", December 6, 2021, https://www.justice.gov/opa/pr/public-comments-welcome-draft-policy-statement-licensing-negotiations-and-remedies-standards, p.9. More generally, see Richard A. Epstein, Kayan B. Noroozi, "Why Incentives for 'Patent Holdout' Threaten to Dismantle FRAND, And Why It Matters", *Berkeley Technology Law Journal*, Vol.32 (2017):1381-1432, https://chicagounbound.uchicago.edu/cgi/viewcontent.cgi?article=13768&context=journal_articles (critiquing the current case-law favoring implementers over SEPs patent holders that reveals that "our commercial society is fundamentally built to value, protect, and reward 'thing' or 'objects' rather than 'ideas' – objects that embody innovations, but not necessarily the underlying innovations themselves."). See also Jonathan M. Barnett, *Innovators, Firms, and Markets: The Organizational Logic of Intellectual Property,* (Cambridge, MA: Oxford University Press, 2017), (concluding at p;179 that "for more than a decade, all three branches of the federal government have pursued a remarkably uniform trajectory motivated by the view that the robust patent system that emerged in the early 1980s constituted a policy error that has discouraged innovation by protection incumbents, blocking entry, and promoting opportunistic patent-litigation and licensing strategies.")

[6] See DOJ, USPTO, "*Policy Statement on Remedies for Standards-Essential Patents Subject to Voluntary F/RAND Commitments",* January 8, 2013, https://www.justice.gov/atr/page/file/1118381/download (which downplayed the relevance of injunctive reliefs by stating at ftn 11 that "by participating in the standards-setting activities at the SDO and by voluntarily making a F/RAND licensing commitment under the SDO's policies, the patent holder may be implicitly acknowledging that money damages, rather than injunctive or exclusionary relief, is the appropriate remedy for infringement in certain circumstances, as discussed below.") On the 2019 policy statement, see Jonathan M. Barnett, "The End of Patent Groupthink", *Center for the Protection of Intellectual Property, George Mason University*, April 2020, https://cpip.gmu.edu/wp-content/uploads/sites/31/2020/04/Barnett-The-End-of-Patent-Groupthink.pdf (noting at p.2 that "the joint statement makes the important additional observation that precluding SEP owners from seeking injunctive relief could give rise to opportunistic "patent holdout" by alleged infringers.")

[7] Weakened IP rights for SEPs patent holders lead to the holdout problem, thereby providing opportunistic implementers with incentives to "efficiently" infringe those IP rights further. See Jonathan M. Barnett, *Innovators, Firms, and Markets: The Organizational Logic of Intellectual Property,* (Cambridge, MA: Oxford University Press, 2017); Gerard Llobet Atilano, Jorge Padilla, "A Theory of Socially-Inefficient Patent Holdout", November 2021, https://www.cemfi.es/~llobet/holdout.pdf

8 See Former Assistant Att'y Gen. Makan Delrahim, Address Before the U. of Pennsylvania Law School, The "New Madison" Approach to Antitrust and Intellectual Property Law, Antitrust Div. of U.S. Dep't of Just. (2018), https://www.justice.gov/opa/speech/file/1044316/download .

[9] See European Commission, "Intellectual property – new framework for standard-essential patents", https://ec.europa.eu/info/law/better-regulation/have-your-say/initiatives/13109-Intellectual-property-new-framework-

for-standard-essential-patents_en ; Intellectual Property Office, "IPO launches call for view on Standard Essential Patents (SEPs)", Press Release, December 7, 2021, https://www.gov.uk/government/news/ipo-launches-call-for-views-on-standard-essential-patents-seps

[10] FTC, DOJ, European Union, *"EU-U.S. Joint Technology Competition Policy Dialogue. Inaugural Joint Statement between the European Commission, the United States Department of Justice Antitrust Division and the United Stated Federal Trade Commission",* Washington D.C., December 7, 2021, https://ec.europa.eu/competition-policy/document/download/dfad116b-9f9b-48ae-ae76-075b32c30e49_en

[11] Robert D. Atkinson, "Industry By Industry: More Chinese Mercantilism, Less Global Innovation", (ITIF Report, May 2021), https://itif.org/publications/2021/05/10/industry-industry-more-chinese-mercantilism-less-global-innovation (noting that "Chinese firms can often copy and reengineer foreign technologies with impunity…even those technologies protected by patents.")

[12] Joseph Farrell and Garth Saloner, "Standardization, Compatibility, and Innovation," *RAND Journal of Economics* 16, no. 1 (Spring 1985): 70-83, https://www.jstor.org/stable/2555589.

[13] Marc Rysman and Timothy Simcoe, "Patents and the Performance of Voluntary Standard-Setting Organizations," *Management Science* 54, No. 11 (November 2008): 1920-1934, https://www.jstor.org/stable/30219582.

[14] Department of Justice, "*Public Comments Welcome on Draft Policy Statement on Licensing Negotiations and Remedies for Standards-Essential Patents Subject to F/RAND Commitments*", December 6, 2021, https://www.justice.gov/opa/pr/public-comments-welcome-draft-policy-statement-licensing-negotiations-and-remedies-standards

[15] *American Soc'y of Mech. Eng'rs v. Hydrolevel* 456 U.S. 556 (1982) at 571.

[16] *Allied Tube & Conduit Corp. v. Indian Head, Inc.* 486 U.S. 492 (1988) at 492.

[17] *Broadcom Corp. v. Qualcomm Inc.,* No. 06-4292 (3d Cir. 2007) at 24.

[18] *Rambus v. FTC*, No. 07-1086 (D.C. Cir. 2008) at 13.

[19] *In the Matter of Robert Bosch GmbH*, File No. 121-0081, https://www.ftc.gov/enforcement/cases-proceedings/1210081/bosch-robert-bosch-gmbh.

[20] *In the Matter of Motorola Mobility LLC and Google Inc.*, File No. 121 0120, https://www.ftc.gov/enforcement/cases-proceedings/1210120/motorola-mobility-llc-google-inc-matter

[21] Michael T. Renaud et al., "Efficient Infringement and the Undervaluation of Standard-Essential Patents," *Intellectual Asset Management* (September/October 2016): 59-62, https://www.mintz.com/sites/default/files/media/documents/2018-04-09/Efficient%20infringement%20and%20the%20undervaluation%20of%20standard-essential%20patents%20.pdf.

[22] Bowman Heiden and Nicolas Petit, "Patent 'Trespass' and the Royalty Gap: Exploring the Nature and Impact of Patent Holdout," *Santa Clara High Technology Law Journal* 34, Issue 2: 179-249, https://digitalcommons.law.scu.edu/cgi/viewcontent.cgi?article=1627&context=chtlj.

[23] Apple, Inc. v. Motorola Mobility, Inc. 3:2011-cv-00178 (W.D. Wis November 8, 2012). https://www.wiwd.uscourts.gov/opinions/pdfs/2011/11-C-178-C-10-29-12.PDF.

[24] Koninklijke Philips N.V. v Asustek Computers INC., Court of Appeal of The Hague, Case No. 200.221.250/1, May 7, 2019, https://caselaw.4ipcouncil.com/dutch-court-decisions/koninklijke-philips-nv-v-asustek-computers-inc-court-appeal.

[25] Sisvel v Haier, May 5, 2020, Case No. KZR 36/17, https://caselaw.4ipcouncil.com/german-court-decisions/federal-court-of-justice-bgh/sisvel-v-haier-federal-court-justice-bundesgerichtshof.