THE HISTORY OF THE ETSI IPR POLICY: USING THE HISTORICAL RECORD TO INFORM APPLICATION OF THE ETSI FRAND OBLIGATION

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ABSTRACT

The European Telecommunications Standards Institute ("ETSI") is responsible for developing and promulgating modern cellular standards such as LTE and 5G. These mainstream cellular standards are expanding throughout the economy, particularly with the adoption and growth of new cellular standards for the "Internet of Things" ("IOT"), whereby diverse new industries such as energy, medical, automotive, appliances, warehousing, and many others increasingly adopt and incorporate cellular functionality to wirelessly connect their products to global communications systems.

Many of the technologies used in those standards are patented by ETSI members, who collectively agree on which technologies to include in a standard (e.g., their own) and which to exclude (e.g., those patented by others). More than thirty years ago, government competition agencies warned ETSI that this collective exclusion of competing technologies by way of

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standardization would raise competition law issues and risk antitrust enforcement against ETSI and its members. ETSI had a responsibility to prevent its members from using the standardization process, and their patents included in the standards they develop, to entrench their own business interests while excluding competitors.

Pragmatically, ETSI drafted, and ultimately adopted, a policy whereby members would commit to license their patents that were accepted into a standard—known as standard-essential patents ("SEPs")—on fair, reasonable, and nondiscriminatory ("FRAND") terms. Companies, lawyers, government representatives, competition law experts, lobbyists, ambassadors, and scholars have been arguing over the meaning of FRAND and its requirements ever since. Billions of dollars in annual patent licensing royalties are at stake.

Rather than addressing ETSI's FRAND policy from the more common perspective—arguing about what FRAND should mean or which policy approaches are best—in this Article, the authors take a fresh approach focusing on a historical review and analysis of what the drafters of the ETSI FRAND policy intended and believed it did mean at the time they wrote and approved it. Because many historical ETSI records are maintained as confidential to ETSI members—which perhaps has contributed to the relative dearth of prior scholarship relating to historical ETSI processes—this Article results from an extensive review of publicly available materials from the period when the ETSI Intellectual Property Rights ("IPR") Policy was developed and enacted and reports on the contemporaneous accounts of those involved. The authors then apply these historical documents and accounts to assess key issues in today's policy and legal disputes. The results show that many of the issues spawning debates about interpretation of the ETSI policy were expressly addressed by the ETSI drafters at the time that the ETSI IPR Policy was created and approved, and that significant historical evidence is available regarding the expressly intended meaning and application of the ETSI IPR Policy.

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I. INTRODUCTION

Cellular devices, such as mobile phones, work because they can speak to each other in the same "language." An Apple iPhone (with a Qualcomm chipset on an AT&T network) can call a Google Pixel (with a MediaTek chipset on a Verizon network) using network infrastructure supplied by Nokia and Ericsson because everyone in the industry, all of these *competitors*, have agreed to use certain protocols and technologies, to the exclusion of other technologies. The communication protocols and technologies are developed via a process called standardization, through entities known as standard-setting organizations or "SSOs."[1] The SSO that has historically been most prominent in the telecommunications space—where standards like LTE, 5G, and IOT are created and agreed upon—is the European Telecommunications Standards Institute, or "ETSI."

Many of the technologies that these competitors submit to ETSI, and thereafter agree to use while forsaking alternative technologies, are patented (or are the subject of patent applications that may be granted during standardization or after the standard is finalized). These are referred to as standard essential patents, or "SEPs."[2] A patent generally provides the owner the right to exclude others from using the covered technology, or at least the ability to charge others for the right to use it. This entails that the owners of SEPs necessary to implement ETSI standards could, absent constraint, exert control over whether others get to use them, and if so, on what terms.

Patents on their own are a reward for innovation, and the exercise of patent rights—without more—is perfectly legal. However, it was recognized a very long time ago that allowing a group (or cartel) of companies to *agree*, via SSOs, to use and promulgate their own patented technologies, and to exclude from the market technologies owned by

1. Daryl Lim, *Standard Essential Patents, Trolls, and the Smartphone Wars: Triangulating the End Game*, 119 PENN ST. L. REV. 1, 3 (2014). Some authors may refer to "standards development organizations," or "SDOs," often to emphasize the organization's role in developing and publishing (rather than mandating use of) a standard. This Article uses the more traditional "SSO" formulation herein, as this tracks many of the applicable legal decisions, but does not intend any commentary on either of those formulations.

2. *See* Mark A. Lemley & Timothy Simcoe, *How Essential Are Standard-Essential Patents?*, 104 CORNELL L. REV. 607, 607–08 (2019).

competitors, raises monopolization concerns.[3] If the agreement to use LTE protocols means that only those handful of companies participating in the SSO "club" can participate in the LTE market, then SSOs could become a tool for entrenched companies to maintain their position and to exclude competition from new, smaller, or unfavored market participants.

Over a period of many decades, taking inspiration from the U.S. courts' decisions in competition law cases, SSOs developed rules to try to proactively combat the potential for monopolization and associated SEP abuses inherent in the SSO process. They developed rules whereby SSO participants promise to allow others to use (i.e., to obtain a license to) their SEPs on terms that are fair, reasonable, and nondiscriminatory, or "FRAND."[4] As described below, it was expressly intended that this would help protect against SSO processes and associated SEPs being used to exclude competition.

Today, there are extensive debates about the meaning and application of FRAND.[5] Because of the prominence of telecommunications, and the billions of phones and other devices sold, these debates and the associated legal disputes have been most prominent in regard to the ETSI IPR Policy.[6] The stakes are incredibly high; many billions of dollars change hands every year between holders of SEPs relevant to ETSI standards and companies that make mobile phones, cars, smart meters, infrastructure, and other devices that use cellular standards.

Companies that seek to make money licensing their SEPs naturally take the position that FRAND is "weak" and "vague," and thus does not restrict behaviors they believe will help them to charge as much as they possibly can for SEP licenses. Companies that typically pay money for SEP licenses, on the other hand, take the position FRAND is "strong" and that it requires certain specific behaviors while prohibiting others. For more than twenty years, these disputes have raged across the globe in the courts, at competition law agencies, at the World Trade Organization, in the halls of Congress, at the Department of Defense, and even at the

3. *See, e.g.*, Patrick D. Curran, *Standard-Setting Organizations: Patents, Price Fixing, and Per Se Legality*, 70 U. CHI. L. REV. 938 (2003).

4. *See, e.g.*, Herbert Hovenkamp, *FRAND and Antitrust*, 105 CORNELL L. REV. 1683 (2020).

5. *See, e.g.*, Jorge L. Contreras, *A Brief History of FRAND: Analyzing Current Debates in Standard Setting and Antitrust Through a Historical Lens*, 80 ANTITRUST L.J. 39 (2015) [hereinafter *Brief History of FRAND*].

6. *See id.* at 73.

United Nations.[7] Many lawyers, lobbyists, and even hedge fund managers have made their own personal fortunes participating in these disputes.[8]

For example, in the mid-2000s and early 2010s, the so-called "smartphone wars" were regularly in the news.[9] These disputes played out as competition law disputes, national legal actions, injunctions, rate-setting proceedings, SSO policy fights, and media stories.[10] One company famously moved its operation facilities out of Germany—at the expense of many German jobs—specifically in response to disputes about application of SEP licensing rules in multi-faceted products such as cellular handsets.[11]

Unfortunately, those disputes have not just persisted but greatly expanded. In addition to updated 4G and 5G "smartphone wars," we now

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7. *See generally id.*

8. *See id.*

9. *See, e.g.*, Charles Arthur, *Apple, Samsung, Google and the Smartphone Patent Wars—Everything You Need to Know*, GUARDIAN (Oct. 22, 2012, 3:45 PM), https://www.theguardian.com/technology/2012/oct/22/smartphone-patent-wars-explained; Peter White, *Qualcomm-Nokia Wars: Peace Breaks Out Suddenly 'as Predicted'*, RETHINK RESEARCH (July 30, 2008), https://rethinkresearch.biz/articles/qualcomm-nokia-wars-peace-breaks-out-suddenly-as-predicted/.

10. *See generally* Jessie Yang, *The Use and Abuse of Patents in the Smartphone Wars: A Need for Change*, 5 CASE W. RES. J.L. TECH. & INTERNET 239 (2014).

11. *See, e.g.*, *UPDATE 1-Microsoft Shuts German Distribution Centre in Patent Row*, REUTERS (Apr. 2, 2012, 12:00 PM), https://www.reuters.com/article/—icrosoft-germany/update-1-microsoft-shuts-german-distribution-centre-in-patent-row-idUSL6E8F276E20120402. More recently, two handset makers exited the German market in response to what were claimed to be unfair injunction tactics relating to ETSI technologies. *See* James Vincent, *Oppo and OnePlus Halt Phone Sales in Germany Following Nokia Lawsuit*, VERGE (Aug. 9, 2022, 5:14 AM), https://www.theverge.com/2022/8/9/23297947/oppo-oneplus-halt-sales-germany-nokia-patent-lawsuit. Likewise, as ETSI-based assertions and associated indemnity issues have become widespread in the automotive industry, two Western module suppliers recently sold off their automotive operations to Asia-based companies. *See* Press Release, Telit Communications PLC, Full Year Results (May 14, 2019), https://www.telit.com/press/full-year-results-april-16-2019/; *Sierra Wireless Reaches Definitive Agreement to Divest Automotive Embedded Module Product Line for US $165 million*, BUSINESS WIRE (July 23, 2020, 5:45 PM), https://www.businesswire.com/news/home/20200723005946/en/Sierra-Wireless-Reaches-Definitive-Agreement-to-Divest-Automotive-Embedded-Module-Product-Line-for-US165-million#:~:text=Sierra%20Wireless%20Reaches%20Definitive%20Agreement,US%24165%20million%20%7C%20Business%20Wire. In addition, according to public filings, at least some small businesses in the emerging "Internet of Things" industry are shuttering their planned product offerings due to concerns about after-the-fact disputes relating to ETSI standards. *See, e.g.*, Brief for The App Association as Amici Curiae Supporting Appellant, Continental Auto. Sys., Inc., v. Avanci LLC, 2021 WL 743367 (5th Cir. Feb. 16, 2021) (No. 20-11032).

also have the "automotive wars,"[12] and find ourselves on the cusp of more disputes about the ETSI IPR Policy involving more and more industries, such as smart meters, smart chargers, smart energy, smart agriculture, medical devices, smart cities, and all of the other myriad industries that are adopting and promulgating connected technologies. According to one study, ETSI's IPR Policy alone has generated about seventy-five percent of all litigation relating to SEPs.[13]

The positions of licensors and licensees (and in some cases, even courts) could not be more at odds. There are very few shades of grey, but rather clear divides. Some of the key disputes that the ETSI IPR Policy has engendered include:

1. Do SEP owners have the right to refuse to license to some companies based on their position in the supply chain, or otherwise exclude some industry participants from the market?

2. Is FRAND supposed to replace or supplement competition law requirements?

3. How are royalty rates to be calculated?

    - Should royalty rates be calculated based on the technical value of the patented invention, or based on the value of the (unpatented) downstream uses to which the invention is later put?
    - Are SEP owners entitled to obtain compensation based on the value of standardization itself?
    - Should rate-setting for particular SEPs include consideration of cumulative rates applicable to the standard as a whole?

4. How should discrimination be understood?

The different—if not entirely opposite—answers that different stakeholders might offer on these points is remarkable.

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12. *See, e.g.*, Amy Sandys, *Ford Takes Avanci Licence in Wake of Munich Judgment*, JUVE PATENT (May 31, 2022), https://www.juve-patent.com/news-and-stories/people-and-business/ford-takes-avanci-licence-in-wake-of-munich-judgment/.

13. *See, e.g.*, Michael Carrier & Brian Scarpelli, *How Standard-Setting Orgs Can Curb Patent Litigation*, LAW360 (June 15, 2021, 6:17 PM), https://www.law360.com/ip/articles/1392222/how-standard-setting-orgs-can-curb-patent-litigation.

But even more remarkable is that, to date, there has been very little *historical* evaluation of these positions, as if parties might just continually reinterpret the ETSI IPR Policy *de novo* depending on their current policy preferences. But the ETSI IPR Policy is a contract, and contracts are interpreted primarily based on their words and their original intent—not continually reinterpreted to suit the preferences of one party or the other.[14] The ETSI IPR Policy's brevity—leaving the notions of "fair," "reasonable," and "nondiscriminatory" to subsequent application—might be blamed in large measure for all of the significant strife it has engendered.

Thankfully, however, ETSI and its stakeholders that developed and approved the ETSI IPR Policy left a robust historical record documenting their interests, goals, and expectations for the policy. Moreover, reasonable and nondiscriminatory ("RAND") and FRAND[15] licensing itself has its own history and was not developed by ETSI, but rather adapted by ETSI and other SSOs based on United States competition law that expressly addressed potential competitive abuses of standardization processes.[16] This Article examines the historical record and seeks to document what was stated by the authors and approvers of the ETSI IPR Policy so as to better understand its anticipated application in the context of the modern disputes identified above.

We find that many of the "policy" issues currently in dispute were expressly addressed in the course of developing and approving the ETSI IPR Policy. As such, and at bottom, resolution of today's disputes might be viewed less as *de novo* "policy" matters, and more aptly as empirical matters that are informed by the robust record of historical sources leading to the original approval of ETSI IPR Policy. A review of the historical record indicates, in particular, that:

1. ETSI and ETSI participants understood that SEP owners would have an obligation to offer FRAND licenses to any

14. *See, e.g.*, United States v. Winstar Corp., 518 U.S. 839, 911 (1996) (Breyer, J., concurring) ("Under ordinary principles of contract law, one would construe the contract in terms of the parties' intent, as revealed by language and circumstance.").

15. The addition of the "fair" (F) requirement for FRAND licensing does not suggest that RAND licensing can be unfair, and these formulations are often treated as equivalent. *See FRAND, RAND, and SEP: Why These Acronyms Are Important*, TAP (Feb. 12, 2013), https://www.techpolicy.com/Blog/February-2013/FRAND,-RAND,-and-SEP-Why-These-Acronyms-Are-Import.aspx.

16. *See generally Brief History of FRAND*, *supra* note 5 (tracing the history of organized industry standardization in the United States).

implementer that was seeking such a license, so as to facilitate—not exclude—market access for any stakeholder;

2. The practice of FRAND licensing was expressly developed and adopted so as to promote and implement, rather than replace, competition law principles;

3. Royalties for SEPs were viewed as adequate compensation to patent holders, and would indeed be reduced on a per-unit basis in view of the widespread licensing markets created by standardization and in view of expressed concerns to prevent royalty stacking; and

4. Nondiscrimination was developed as a distinct requirement, to prevent material discrimination as between implementers, and in particular to prevent discrimination against small or medium sized business enterprises ("SMEs") seeking to participate in the market.[17]

We begin by addressing the development of FRAND as an obligation widely adopted by standard organizations and then turn to the specific historical records at the ETSI.

II. "FRAND" LICENSING DERIVES FROM UNITED STATES COMPETITION LAW AS A PROACTIVE OBLIGATION TO RESTRICT PATENT ABUSE

Understanding the ETSI IPR Policy itself requires understanding the context in which the policy was developed. When ETSI developed its IPR Policy, FRAND licensing was not a new concept, but rather had been adopted repeatedly around the world by all sorts of SSOs for use with all sorts of standards.[18] As such, to understand why FRAND was adopted at the ETSI and what it was designed to accomplish, we need to address this historical context.[19]

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17. *See generally* Jorge L. Contreras, *Origins of FRAND Licensing Commitments in the United States and Europe*, *in* THE CAMBRIDGE HANDBOOK OF TECHNICAL STANDARDIZATION LAW: COMPETITION, ANTITRUST, AND PATENTS 149 (Jorge L. Contreras ed., 2018) [hereinafter *Origins of FRAND*].

18. *Id.*

19. The authors acknowledge and appreciate the groundbreaking work by Professor Jorge Contreras in collecting facts and information regarding the development of the FRAND promise and its adoption by SSOs. The information in this section was developed in view of, and seeks to build upon, Professor Contreras's original research and analysis. *See id.*; *see also Brief History of FRAND*, *supra* note 5.

A. Early-1900s: ANSI Allows Patents in Standards Only if Patent Owners' Commitments Will Avoid Monopolistic Tendencies

In the early 1900s, there already existed a variety of technical standards and associated SSOs.[20] But in the era of primarily mechanical devices, issues with patents and standards were somewhat less complicated than today, when a single standard might incorporate hundreds or even thousands of patented technologies. Nevertheless, by the 1930s, it was becoming apparent that standards bodies would have to grapple, in some way, with the possibility that their technical standards might involve the use of patented technologies.[21] It was recognized that this created risks; a patent owner might seek to enjoin implementers of the standard, or demand excessive royalties, making the standard unattractive.[22]

One option for SSOs was to simply exclude patented technologies altogether. This was considered. But in 1932, one of the oldest and most venerable SSOs—the entity we now know as the American National Standards Institute ("ANSI")[23]—developed a new approach to patents and standards. The new ANSI patent policy stated that "[a]s a general proposition patented designs or methods should not be incorporated into standards."[24] However, ANSI contributors would be allowed to obtain patents on technologies included with their contributions, but only "if a patentee be willing to grant such rights as will avoid monopolistic tendencies."[25] In other words, rather than requiring a common licensing promise (e.g., RAND), ANSI required that, as a condition to including patented technology in a standard, what we might refer to today as "patent hold-up" would be addressed on a case-by-case basis in view of the particular technology and patent holder.

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20. *Brief History of FRAND*, *supra* note 5, at 43.

21. *See id.*

22. *See Origins of FRAND*, *supra* note 17, at 151.

23. ANSI has a long history and has gone by different names (e.g., the American Standards Association). For convenience, in this Article we use ANSI's current name to refer to it and its historical predecessors-in-interest. AM. NAT'L STANDARDS INST., 1918–2008 ANSI: A HISTORICAL OVERVIEW 6 (n.d.), https://share.ansi.org/shared%20documents/News%20and%20Publications/Links%20Within%20Stories/ANSI%20-%20A%20Historical%20Overview.pdf.

24. *See Brief History of FRAND*, *supra* note 5, at 43 n.17.

25. *Id.*

B. *Mid-1900s: The U.S. Courts Develop and Apply the RAND Licensing Obligation as a Competition Law Remedy*

ANSI further updated and clarified its policy about thirty years later, in 1959.[26] But again, these updates were not *sui generis*. To properly understand these later ANSI updates, we have to understand the specific context in which they were developed. Namely, in the 1940s and 1950s, the U.S. courts—including the U.S. Supreme Court—decided a series of antitrust cases addressing the use of patents to stifle competition.[27] While an in-depth analysis of mid-century U.S. competition law is beyond the scope of this Article, the basic issue that the courts were grappling with was how to address the misuse of patent rights—both individually and collectively—to stifle competition in various markets.[28] The U.S. courts developed a solution based on licensing: companies that had succumbed to "monopolistic tendencies" (to use ANSI's phrase) in the use of their patent rights would be required—as an antitrust *remedy*—to license their patents on reasonable and nondiscriminatory terms to "all applicants."[29] This marked the beginnings of a common approach to licensing obligations, rather than the case-by-case approach originally developed by ANSI.

The Supreme Court's *Hartford-Empire* decision, and the ultimate resolution of that matter, is one illustrative example of how the U.S. courts resolved issues where patents were used to harm competition. In that case—after much litigation over terminology—the Supreme Court affirmed a contested antitrust decree imposing on the patent holder an obligation to license its patents to "*all applicants*" on terms including a "*reasonable royalty . . . without discrimination.*"[30] There were a significant number of other cases that applied similar approaches of mandating licensing to all applicants on RAND terms.[31]

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26. *Id.* at 43–44.

27. *See, e.g.*, Hartford-Empire Co. v. United States, 324 U.S. 570, 573–74 (1945), *supplementing* 323 U.S. 386 (1945); U.S. Gypsum Co. v. Nat'l Gypsum Co., 352 U.S. 457, 459–60 (1957).

28. *See Hartford-Empire*, 324 U.S. at 573–74; *U.S. Gypsum Co.*, 352 U.S. at 459–60.

29. *See, e.g.*, *Hartford-Empire*, 324 U.S. at 573–74 (imposing competition law requirement to license "all applicants to make, use, or sell the patented machines at reasonable royalties").

30. *Id.* at 574 (emphasis added); *Hartford-Empire Co.*, 323 U.S. at 413–19 (emphasis added).

31. *See* Standard Oil Co. of Ind. v. United States, 283 U.S. 163 (1931) (requiring licensing on reasonable royalty basis); United States v. Aluminum Co. of Am., 148 F.2d 416 (2d Cir. 1945) (requiring licensing on reasonable royalty basis); United States v. U.S. Gypsum Co., 67 F. Supp. 397 (D.D.C. 1946), *rev'd*, 333 U.S. 364 (1948) (requiring licensing

C. ANSI Adapts U.S. Competition Law RAND Obligation to Become a Proactive SSO Licensing Obligation

The U.S. courts' guidance regarding the use of patents for market allocation and suppression of competitors was not ignored. As noted above, in 1959, ANSI further updated its licensing policies to replace its prior case-by-case approach and instead adopted common language in line with what the Supreme Court had developed. ANSI's new 1959 policy replaced the more general requirement that "monopolistic tendencies" be avoided, and now provided that patented technologies should be excluded from standards unless the patent holder agrees to make licenses "available to any interested and qualified party . . . on *reasonable terms*."[32]

Not long thereafter, in 1970, ANSI again updated its licensing policy to track the U.S. courts' antitrust RAND caselaw even more closely. The new policy provided that licenses must be made available to "applicants desiring to utilize the license for the purpose of implementing the standard," on terms that were either "without compensation" or "under reasonable terms and conditions that are demonstrably free of any unfair discrimination."[33] In this way, by incorporating expressly the same language developed by the U.S. courts in imposing remedies for anti-competitive abuse of patents, ANSI became the pioneer in promulgating this same, common language as a *proactive* obligation within SSOs.

III. THE ETSI IPR POLICY WAS DEVELOPED TO COMPLY WITH EUROPEAN COMPETITION LAW, AND TO TRACK THE ANSI-DEVELOPED RAND APPROACH

Once ANSI adopted RAND licensing, the approach quickly became widespread; it became the "standard" approach to licensing policies at standards-setting organizations. SSOs in the United States and around the world began to adopt RAND licensing as a proactive policy to guard against the well-known competition law problems with standardization.

For example, well prior to ETSI's adoption of its IPR Policy, the International Telecommunication Union's ("ITU") Telecommunication

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to all applicants on equal terms); United States v. Nat'l Lead Co., 63 F. Supp. 513, 534 (S.D.N.Y. 1945), *aff'd*, 332 U.S. 319 (1947) (requiring licensing "at a uniform, reasonable royalty"); United States v. General Electric Co., 82 F. Supp. 753 (D.N.J. 1949), *supplemented by* 115 F. Supp. 835, 849 (D.N.J. 1953) (requiring licensing based on reasonable, nondiscriminatory compensation).

32. *See Brief History of FRAND*, *supra* note 5, at 43–44.

33. *See Origins of FRAND*, *supra* note 17, at 163.

Standards Bureau ("ITU-TSB") had adopted a code of practice regarding patent rights used in ITU-TSB standards (referred to as "Recommendations" in ITU-TSB parlance).[34] The ITU-TSB's objective was "to ensure compatibility of international telecommunications on a world-wide basis."[35] According to the ITU-TSB's patent policy:

> To meet this objective, which is in the common interests of all those participating in international telecommunications (network and service providers, suppliers, users) it must be ensured that Recommendations, their applications, use, etc. are accessible to everybody. It follows therefore that a commercial (monopolistic) abuse by a holder of a patent embodied fully or partly in a Recommendation must be excluded.[36]

In order to achieve this, the ITU-TSB required that the patent holder agree to license on at least "a non-discriminatory basis on reasonable terms and conditions."[37] As the European Commission ("EC") expressly noted in its 1992 Standards Communication regarding the draft ETSI IPR Policy, similar FRAND policies were adopted in Europe at high-profile SSOs such as the International Organization for Standardization ("ISO"), the International Electrotechnical Commission ("IEC"), the European Committee for Standardization ("CEN"), and the European Committee for Electrotechnical Standardization ("CENELEC") prior to the adoption of the ETSI IPR Policy.[38]

And the caselaw continued to develop. In 1982, the U.S. Supreme Court held that an SSO would be liable for its members' breaches of competition law (in that case, to the tune of $6 million) where its policies did not expressly restrict the relevant behavior, even if the SSO was unaware of that conduct.[39] In other words, SSOs were put on notice that—absent express policies restricting members' anti-competitive

34. *See* Int'l Telecomm. Union [ITU], *Patent Policy and MPEG-2 Follow Up*, AVC Doc. No. 551 (July 1993), https://www.itu.int/wftp3/av-arch/avc-site/1990-1996/H310_H323_Experts_Group/Contributions/AVC-0551.pdf (attaching ITU-TSB patent policy).

35. *Id.*

36. *Id.*

37. *Id.*

38. Commission of the European Communities, *Communication from the Commission: Intellectual Property Rights and Standardization*, § 2.2.3, COM (1992) 445 final (Oct. 27, 1992) [hereinafter *EC 1992 Standards Communication*], https://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=COM:1992:0445:FIN:EN:PDF.

39. Am. Soc'y of Mech. Eng'rs, Inc. v. Hydrolevel Corp., 456 U.S. 556, 566, 573, 577 (1982).

behavior—they would be on the hook for members' misconduct. This made it all the more important to develop patent licensing policies designed to encourage competition law compliance.

A. ETSI's Early Efforts to Develop a Licensing Policy Focused on Competition Law Compliance

It was in this specific context, in the late 1980s, that the discussions around European efforts to develop telecommunication standards began to take place. ETSI's predecessor entity, CEPT,[40] addressed the need to develop licensing rules for this new organization in a Patent Panel Report in 1987:

> A standards body such as the GSM needs to make itself aware, as far as it is reasonably possible, the extent of the IPR implications that may exist before adopting a standard. Otherwise such a standard may bestow a "windfall" monopoly position for an individual supplier. This becomes even more essential when the standard is a mandatory standard.[41]

And again in 1988: "Unless an effective means is found to ensure that all European manufacturers and operators involved with the GSM standard give identical undertakings to licence IPRs, there will be a serious risk of distortion of market forces against SMEs and in favour of large multinationals."[42] While a number of years passed before ETSI's ultimate

40. CEPT stands for Conférence Européenne des administrations des Postes et des Télécommunications (European Conference of Postal and Telecommunications Administration). *About ETSI*, ETSI, https://www.etsi.org/about (last visited Apr. 18, 2023). CEPT was established in 1959 and was a precursor to ETSI. *Background*, CEPT, https://www.cept.org/cept/background (last updated July 4, 2022, 1:40 PM). The technical development of GSM was initially done in CEPT; this task shifted in 1988 to the newly established ETSI. *See About ETSI*, *supra*.

41. Internal Memorandum from CEPT/CCH/GSM on Intellectual Property Issues in GSM, at 24, Doc. 122/87 (Oct. 12–16, 1987) (on file with author) [hereinafter *Intellectual Property Issues*]. At the time GSM was under consideration for development and adoption as a mandatory European standard for telecommunications. *Id.* The materials listed here and below as "on file with author" were published as trial exhibits during trial of the *TCL v. Ericsson* matter and may be obtained upon request to the district court. *See generally* TCL Commc'ns Tech. Holdings, Ltd. v. Telefon. LM Ericsson, No. 15-cv-02370, 2018 WL 11027100 (C.D. Cal. Feb. 13, 2018).

42. Internal Memorandum from CEPT/CCH/GSM on Patent Panel Report, Annex V, GSM Doc. /88 (Apr. 25–29, 1988) (on file with author).

adoption of its IPR Policy in 1994,[43] this core focus on developing licensing requirements to avoid anti-competitive abuses never changed.

ETSI's work on its nascent IPR Policy took place in earnest from 1990–1994. ETSI was developed and, in large measure, funded by the European Commission as one of the three officially recognized European Standards Organizations ("ESOs").[44] As such, it is not surprising that from day one, the European Commission's competition law teams were closely involved in working with ETSI to craft the ETSI IPR Policy's requirements.[45]

Issues with standards and competition law were addressed, for example, in the Commission's 1990 "Green Paper," which noted:

> The problem of industrial and intellectual property rights (IPR) as well as patents has become a serious issue within the context of standardization. *Inclusion of such elements within a standard can lead to reinforcement of a dominant position within the market unless satisfactory conditions for use of such property have been agreed.* In many cases, the lack of adequate procedures to resolve such problems has slowed down work and hampered the convergence toward harmonized solutions. The European Standardization System should take due account of IPR and patent problems and develop practical rules to cope with a situation which is already of importance for the new technologies but also extending rapidly to traditional areas.[46]

Further, the Commission stated, "[t]he inclusion of IPR and patents within standards should be subject to clear rules, which provide for the right of use of IPR and patents either free or on fair and reasonable

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43. EUR. TELECOMM. STANDARDS INST., GUIDE ON INTELLECTUAL PROPERTY RIGHTS (IPRS) 59 (2021), https://www.etsi.org/images/files/ipr/etsi-guide-on-ipr.pdf.

44. *See, e.g.*, *EC 1992 Standards Communication*, *supra* note 38, § 2.2.1 ("ETSI (European Telecommunications Standards Institute) created in 1988 following the recommendation made in the Commission's Green Paper on Standards . . . ."); *see also* N&M CONSULTANCY, THE N&M HANDBOOK ON THE OPERATION OF THE ETSI INTERIM IPR POLICY, Annex VII, § 12.1 (1995) [hereinafter ETSI IPR POLICY HANDBOOK] ("ETSI may be a non-government body, but it receives official government (CEC) recognition and finance. Even more significantly, many ETSI Standards are made mandatory as a result of government action.").

45. *See* RUDI BEKKERS, MOBILE TELECOMMUNICATIONS STANDARDS: GSM, UMTS, TETRA, AND ERMES 249 ("[D]uring the policy development stage, the Commission regularly intervened with indications of what it would and would not find acceptable.").

46. *Commission Green Paper on the Development of European Standardization: Action for Faster Technological Integration in Europe*, at 46, COM (1990) 456 final (Oct. 8, 1990) (emphasis added).

terms."[47] ETSI's minutes from its 1992 General Assembly record the close "negotiations" between ETSI and the European Commission regarding ETSI's choice of licensing policy terms conforming to European competition requirements.[48]

Perhaps most significantly, in 1992 the Commission released its seminal *Communication from the Commission: Intellectual Property Rights and Standardization* (the "EC Standards Communication").[49] More than anything, it was this EC Standards Communication that helped guide ETSI's development of its IPR Policy to what was ultimately adopted, in 1994, as the ETSI IPR Policy.[50] While the IPR Policy has been revised in certain modest ways over the decades since then, the fundamental features and language of the IPR Policy—requiring that ETSI members declare their essential or potentially essential patents, and either agree or not to license those patents on FRAND terms—have remained identical to the text that was approved in 1994.[51]

B. The ETSI IPR Policy Was Expressly Drafted to Conform to the Commission's 1992 Policy Paper on Competition Law Issues with Patents and Standards

In the early 1990s, prior to approval of the IPR Policy, ETSI had been discussing alternative, more complicated text for its licensing policy. This draft policy was referred to as the "undertaking approach" because the draft would have required that ETSI members agree in advance, as a condition to ETSI membership, to an undertaking that would require them to license all future patents that turn out to be essential to ETSI standards.[52]

There were various concerns raised by ETSI members and others with this "in advance" undertaking approach. For instance, it was suggested that it could permit a competitor to seek inclusion of a member's "crown jewel" patented technology in a standard, and the

47. *Id.* at 53.

48. Letter from K.H. Rosenbrock, Dir., Eur. Telecomm. Standards Inst., to all Members, Counselors, and Observers of the Eur. Telecomm. Standards Inst., at 3 (Sept. 9, 1992) (attaching Draft Minutes of the 13th General Assembly) (on file with author).

49. *EC 1992 Standards Communication*, *supra* note 38.

50. *See* ETSI IPR POLICY HANDBOOK, *supra* note 44, § 1.1.

51. *Compare* ETSI IPR POLICY HANDBOOK, *supra* note 44, Annex IV, §§ 4.1, 6.1, *with ETSI Intellectual Property Rights Policy*, ETSI DIRECTIVES, Annex VI, §§ 4.1, 6.1 (2022) [hereinafter *2022 ETSI IPR*].

52. Eric J. Iversen, *Standardization and Intellectual Property Rights: ETSI's Controversial Search for New IPR-Procedures*, *in* IEEE CONF. ON STANDARDIZATION AND INNOVATION § IV (1999), https://eprints.utas.edu.au/1297/1/Iversen_ETSI_2002.pdf.

member would then have no choice but to offer licenses to that technology even if the member did not itself contribute that technology to ETSI as part of the standards-making process.[53] It was also considered that this approach might be contrary to what was viewed as the "tried and true" (ANSI-derived) RAND approaches already used at other European SSOs, such as ISO, IEC, CEN, CENELEC, and other mainstream international SSOs at the time, whereby patent declarations would be sought as part of the standard development process, so that members could evaluate whether to offer a license in the context of specific technical projects.[54]

The 1992 EC Standards Communication addressed many of these topics and more. Indeed, the Commission's statements in the 1992 EC Standards Communication were directed expressly at ETSI processes and referred to ETSI's debates regarding a potential IPR policy and the undertaking text that was being debated at the time the Communication was issued.[55] For example, the Commission noted that "[t]he three European standards-making bodies recognized by the Community at the European level are CEN, CENELEC and ETSI,"[56] and that "[a]t the international level, ISO, IEC and CCITT . . . are the standard-making organizations."[57] In contrasting the approaches to IPR issues by ETSI with these other organizations, the Commission stated that the approaches to IPR issues used "by ISO/IEC and CEN/CENELEC are relatively simple," requiring primarily that known patent holders be requested to provide a statement of willingness to license "on reasonable terms and conditions"[58]—i.e., in accordance with the ANSI-developed approach.

The Commission noted that this type of "voluntary approach" to IPR issues—whereby the SSO member was not required to commit in advance (i.e., undertake) to license potential SEPs that might ultimately be developed, but instead would be required to provide a declaration regarding its intent to license, or not, in the context of specific technical development activities—has been "favoured until now by most international standardization bodies."[59] The Commission further recognized concerns by some parties that "unnecessary detail" in IPR policies might "[render] the process more complex than it need be," and

53. *Id.*
54. *See EC 1992 Standards Communication*, *supra* note 38, § 2.2.5.
55. *See generally id.*
56. *Id.* § 2.2.1.
57. *Id.* § 2.2.2.
58. *Id.* § 2.2.3.
59. *Id.* §§ 2.2.3, 6.1.7.

that "no evidence of a need to depart from the voluntary approach has been produced."[60]

Comparing the then-draft ETSI policy to these historically "favoured" approaches, the Commission noted that the then-pending ETSI draft would require an advance "undertaking" to license as a condition to ETSI membership, rather than using a declaration process to address SEPs that might become known during the course of the member's subsequent development efforts.[61] According to the Commission, the draft ETSI undertaking policy "sets out more detailed procedural rules" than the established international SSOs, including that "membership [in] ETSI is conditional on signature of the Undertaking whereby an intellectual property right (IPR) holder agrees to licence his IPRs" ahead of time and on more detailed terms.[62] Ultimately, the Commission concluded that it would have "a preference for a system based on tried and proven principles."[63] Moreover, after receiving a complaint from one party about ETSI's proposed "license by default" approach, the European Commission sent an even more pointed letter to ETSI questioning whether the mandatory in-advance commitment to license might itself create competition law problems.[64]

Not long thereafter, ETSI abandoned its undertaking draft, and instead, developed simplified text.[65] The "simplified" 1994 version of the ETSI IPR Policy was viewed as more aligned with the "declaration" process already used by other European and international SSOs, and more consistent with then-applicable Commission guidance on how to best handle the interaction between IPR and standards consistent with European competition law and other legal obligations.[66] This simplified text was submitted for approval at the twenty-first meeting of the ETSI General Assembly in November 1994.[67] It was indeed approved on

60. *Id.* § 6.1.7.
61. *Id.* § 2.2.5.
62. *Id.*
63. *Id.* § 6.1.8.
64. *See, e.g.*, Maurits Dolmans, *Standards for Standards*, 26 FORDHAM INT'L L.J. 163, 181 (2002).
65. Allen N. Dixon, *The ETSI Complaint and the European Commission's Communication on Standardization*, 1 INT'L PROP. L. & PUB. POL'Y 369, 369 (1996). The prior undertaking text was tentatively approved by ETSI in 1993, but due to various of the concerns set out in the 1992 Standards Communication, as well as discussions within the European Commission and a formal complaint filed by the Computer and Business Equipment Manufacturers Association ("CBEMA"), it never went into effect. *Id.*
66. *See* discussion *infra* Section III.C.
67. ETSI IPR POLICY HANDBOOK, *supra* note 44, Annex V, § 0.1.

November 23, 1994, and became the "ETSI Interim IPR Policy."[68] Subsequently, the "Interim" aspect was dropped, but otherwise the language of the policy has been largely unchanged.[69] This is the ETSI IPR Policy that we know today.[70]

C. *The ETSI IPR Policy Was Approved Only on the Condition that It Would Be Applied to Conform to the 1992 EC Standards Communication*

ETSI and ETSI participants were particularly explicit that the 1992 EC Standards Communication, and its principles regarding the interplay between patents, standards, and competition law, would form the backbone of the ETSI IPR Policy.[71] As far as can be discerned based on available records, there was *unanimity*, or at the very least near-unanimity, that the ETSI IPR Policy would need to be applied in a manner consistent with the antitrust principles set forth therein.[72] As such, interpreting the IPR Policy to be at odds with the 1992 EC Communication would not accurately honor its intended application. This is, at least, what ETSI, the European Commission, European Member States, and ETSI members all stated at the time. For example:

- The Commission: Prior to the November General Assembly meeting where the IPR Policy was approved, the European Commission submitted comments to the ETSI General Assembly.[73]
    - According to the Commission's submission, it would support approval of the ETSI IPR Policy solely on the understanding that "*the Policy to be established must be compatible with the principles set out in the Commissions* [sic] *Communication of October 1992 . . . on*

68. *Id.*

69. KARL HEINZ ROSENBROCK, WHY THE ETSI IPR POLICY REQUIRES LICENSING TO ALL 3 (2017), https://www.fair-standards.org/wp-content/uploads/2017/08/Why-the-ETSI-IPR-Policy-Requires-Licensing-to-All_Karl-Heinz-Rosenbrock_2017.pdf; *see also supra* note 51 and accompanying text.

70. *See supra* note 51 and accompanying text.

71. ETSI IPR POLICY HANDBOOK, *supra* note 44, Annex VIII, § 2(d).

72. *See, e.g.*, *id.*; *see also infra* notes 73–77 and accompanying text.

73. *See* ETSI IPR POLICY HANDBOOK, *supra* note 44, Annex VIII, § 2.

Standardization and IPRs, principles which reflect Community law and policies."[74]

- The Commission's submission to ETSI stated that the Commission had determined that the draft ETSI IPR Policy was in line with the Communication's principles, *provided it was implemented correctly*.[75] The Commission also issued a warning of potential action, such as competition law investigation, if it was not:

> The Commission, in cooperation with the Member States, will take careful note of whether or not the Policy is being implemented by the ETSI membership in a way which is consistent with the principles set out in the Communication. . . . [The Commission] would of course be obliged to raise the issue of IPRs at any stage in the future if it found that the Policy was not being implemented in a way consistent with the principles of the Communication.[76]

- The Member States: In addressing the need for such a "monitoring function," as well as echoing the Commission's warning about misapplication of the draft IPR Policy, the Administrations of Denmark, France, Germany, Ireland, the Netherlands, Norway, Portugal, Spain, Switzerland, Turkey, and the United Kingdom submitted to the General Assembly the following joint statement to the ETSI 21st General Assembly:

> [T]he Administrations also confirm their intention that the implementation of the Policy should meet the public policy objectives which underlie its establishment. They recognise the particular responsibilities they have (together

74. *Id.* Annex VIII, § 2(d)(1) (emphasis added).
75. *Id.* Annex VIII, § 2(d)(3).
76. *Id.* Annex VIII, § 2(d)(3)–(4).

> with others, in particular ETSI itself and the European Commission) to ensure that an appropriate level of monitoring activity is established to achieve a full appreciation of the effects of the interim IPR Policy. . . . The Administrations state their willingness to consider alternative measures necessary if the use of mandatory standards will be hindered by the non-availability of IPR on fair, reasonable and non-discriminatory conditions.[77]

- ETSI:
  - In a contribution to the 22nd General Assembly in March 1995—which came to be known as "The Mechanism"—the ETSI General Assembly Chairman expressly stated that the ETSI IPR Policy would need to be implemented in accordance with the 1992 EC Communication:

    > In meeting his obligations under the ETSI IPR Policy (notably Article 6.1), the Director shall evaluate any undertaking offered by an IPR owner in respect of a Standard. The evaluation shall be conducted with a view to ascertaining that conditions for the successful implementation of the Standard are met. The evaluation shall also be conducted in the light of the EC Communication on Intellectual Property Rights and Standardization (COM(92)445 of 27 October 1992).[78]

  - Shortly after approval of the ETSI IPR Policy, ETSI published a "Chairman's IPR Survival Guide," instructing the Chairman of ETSI's technical development committees on how to handle IPR issues that might arise under the

77. *Id.* Annex VIII, § 3(d).
78. *Id.* Annex VIII, § 5(d).

> then-new ETSI IPR Policy.[79] Before turning to matters of technical committee management, the ETSI Survival Guide first notes the European Commission's requirement that the ETSI IPR Policy be interpreted in accordance with the 1992 Commission Communication, as well as of the ETSI General Assembly Chairman's "mechanism."[80]

- ETSI Members: As another example of such contemporaneous commentary, in 1995 two leading participants in the ETSI IPR Policy's development published a *Handbook on the ETSI Interim IPR Policy*.[81] According to a foreword drafted by ETSI's then-Deputy Director, the Handbook's authors were "highly rated and acknowledged experts . . . who were deeply involved with the ETSI IPR Policy and Undertaking . . . ."[82] The ETSI IPR Handbook emphasizes that the ETSI Interim IPR Policy "does not stand on its own," but rather "its interpretation and implementation is influenced by . . . [the] EC's Communication on IPR and Standardization . . . ."[83]

In short, there should be no reasonable debate that the 1992 EC Standards Communication served as a key guiding document for the ETSI IPR Policy, such that the ETSI IPR Policy—as a contractual matter—was designed[84] to be applied in accordance with the principles

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79. *Id.* Annex V, § 1.

80. *Id.* Annex V, § 0.3.

81. *See generally* ETSI IPR POLICY HANDBOOK, *supra* note 44.

82. Frede Ask, *Forward* to RON NICHOLSON & ROGER MISELBACH, THE N&M HANDBOOK ON OPERATION OF THE ETSI INTERIM IPR POLICY (1995). While ETSI's Deputy Director notes that the Handbook expresses the authors' "independent view" of the policy, he also explains that it "must be regarded as a valuable contribution to understanding the interaction between IPRs and standardization" under the ETSI IPR Policy. *Id.* ETSI thought highly enough of the authors that it had an agreement in place with them and considered to refer any questions about IPR issues to their consultancy. Memorandum from Frede Ask, Deputy Dir. of ETSI, to Jonas Twingler (Feb. 2, 1995) (on file with author).

83. ETSI IPR POLICY HANDBOOK, *supra* note 44, § 1.1.

84. The ETSI IPR Policy includes a French choice-of-law clause. *2022 ETSI IPR*, *supra* note 51, Annex VI, § 12. A discussion of the application of French law is beyond the scope of this Article, but it is noted that—similar to U.S. law and the law in other jurisdictions—French contract interpretation principles focus on the agreement's original intent. *See, e.g.*, C. CIV. art. 1188 (Fr.) ("A contract is to be interpreted according to the common intention of the parties . . . .").

and competition law concerns set forth therein.[85] ETSI subsequently sought clearance from the European Commission on the IPR Policy, and on March 28, 1995, the Directorate-General for Competition issued a notice that "[t]he Commission intends to take a favourable view pursuant to Article 85 of the EC Agreement and Article 53 of the EEA Agreement towards the ETSI interim IPR policy."[86]

IV. THE EC STANDARDS COMMUNICATION, AND OTHER CONTEMPORANEOUS SOURCES, EXPRESSLY ADDRESS MANY OF THE "MODERN" DISPUTES REGARDING APPLICATION OF FRAND

All of the above begs the question: what "principles" are set forth in the EC's 1992 Standards Communication, and what did other contemporaneous sources say about how the ETSI IPR Policy was intended to be applied? As it turns out, each of the modern "policy disputes" cataloged above was addressed by ETSI and ETSI participants at the time the ETSI IPR Policy was drafted and approved. We address below the historical views and statements on these issues.

A. The Commission and ETSI Participants Stated that FRAND Licenses Under the ETSI IPR Policy Would Be Available to "All Users of a Standard"

The issue of who is entitled to enforce the FRAND promise, and whether a patent holder may properly refuse to license some implementers, has been in vogue of late. Some argue that FRAND licenses are not available to certain implementers based on their position in the supply chain.[87] Others contend that the ETSI IPR Policy involves an obligation to license any implementer that seeks a license, and does not allow a SEP holder to refuse to license an implementer that is willing to take a license on FRAND terms.[88] As is demonstrated below, and as an empirical matter, we find that arguments that restrict some

85. Additional commentary on the development of the ETSI IPR Policy to date is sparse, but there are a few prior articles on the topic. *See, e.g.*, Iversen, *supra* note 52; *see also* Allen N. Dixon, *The ETSI Complaint and the European Commission's Communication on Standardization*, 1 INT'L INTELL. PROP. L. & POL'Y 369 (1996).

86. Notice Pursuant to Article 19 (3) of Council Regulation No 17 Concerning Case No IV/35.006—ETSI Interim IPR Policy, 1995 O.J. (C 76) 5, 5–6 [hereinafter Commission Notice], https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:C1995/076/05&rid=10.

87. *See* A. Douglas Melamed & Carl Shapiro, *How Antitrust Law Can Make FRAND Commitments More Effective*, 127 YALE L.J. 2110, 2113–14 (2018).

88. *See* ROSENBROCK, *supra* note 69, at 4, 9.

implementers from obtaining FRAND licenses contradict the historical record.

According to the Commission's 1992 Standards Communication, "all persons wishing to use European standards must be given access to those standards . . . on fair, reasonable and non-discriminatory terms."[89] As the Commission recognizes, a patent holder usually remains free to refuse licenses to their technology.[90] This is why, for example, the ETSI IPR Policy provides that a participant could refuse to license its patents, but if it did so, then it needed to notify ETSI so that discussions could take place in technical committees about changing the standard to not utilize the patent.[91] In other words, a patent holder involved in standardization might refuse to commit to offer licenses, but in such case, the patent will not be included in the standard and will not become an SEP.[92]

But this situation fundamentally changes when the SEP owner voluntarily agrees to license their patents as part of a standards process. According to the 1992 Standards Communication, making a licensing promise to an SSO "entails an acceptance by the rightholder of the fact that he is no longer acting in a totally free . . . market once he has agreed to give licences."[93] The Commission expressly states that such a licensing promise entails, moreover, that licenses will be available "as of right on fair and reasonable conditions *to all users of a standard*."[94] That is the principle upon which the ETSI IPR Policy was founded. Indeed, in its 1995 competition law clearance letter to ETSI regarding the just-approved IPR Policy, the Commission reiterated its guidance that "[t]he development and ultimate application of a given standard can be held up or even made impossible if the standard incorporates proprietary technology and the owner of that technology is not willing to make it

89. *EC 1992 Standards Communication*, *supra* note 38, § 6.2.1(1)–(2).

90. *Id.* § 4.3.5.

91. ETSI IPR POLICY HANDBOOK, *supra* note 44, § 7.8.

92. *See EC 1992 Standards Communication*, *supra* note 38, § 4.3.6.

93. *Id.* § 4.7.3.

94. *Id.* (emphasis added). This requirement was echoed by the Commission in its 2011 Horizontal Guidelines which state that to comply with competition law requirements, and SSO's IPR Policy, "IPR policy would need to require participants wishing to have their IPR included in the standard to provide an irrevocable commitment in writing to offer to license their essential IPR to *all third parties* on fair, reasonable and non-discriminatory terms." Guidelines on the Applicability of Article 101 of the Treaty on the Functioning of the European Union to Horizontal Co-Operation Agreements, 2011 O.J. (C 11) 1, 60 (emphasis added), https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:52011XC0114(04)&from=EN.

available for third parties wishing to manufacture products complying with the standard."[95]

Contemporaneous documents from ETSI participants confirm their understanding that the ETSI IPR Policy would require licenses to be available "to all who wish to be licensed."[96] According to the 1995 ETSI IPR Handbook, published by two of the leading ETSI participants in drafting of the ETSI IPR Policy:

> Where an IPR Essential to an ETSI Standard exists, a declaration, given in respect of the licensing of that IPR, can only be said to comply with ETSI's requirements if licences will be granted to all persons who wish to implement the Standard and have the effect of permitting all such persons to implement the Standard. For licensing compliance to be demonstrated it must be shown that: . . . licenses will be available to all persons who wish to implement the Standard. If licenses are denied to any person who wishes to implement the [ETSI] Standard . . . a licensing declaration may be regarded as non-compliant. . . . It is difficult to see how an ETSI Member can reconcile continued membership of ETSI with a refusal to grant licences.[97]

It is accordingly difficult to reconcile today's policy arguments that SEP owners should be entitled to choose (whether unilaterally or in concert with others) their own "licensing level," to choose who can have a license to manufacture products complying with a standard, or that certain implementers are not intended beneficiaries of the FRAND promise, with this historical record. It is similarly difficult to accept that SEP owners might be permitted to exclude some market participants rather than accepting FRAND licensing terms.

Historical practices also bear this out. While public information about licensing in the 1990s is somewhat sparse—due both to confidentiality issues and also to the very limited availability of such data from the pre- and early-Internet eras—it is apparent that chip suppliers such as Texas Instruments, Siemens, and Harris Semiconductor had a network of licenses and cross licenses to GSM technologies.[98] It likewise appears from public sources that in 1990 Ericsson had licensed Alcatel to its SEPs for all equipment, including components, and also had a chip-

95. Commission Notice, *supra* note 86, ¶ 6.

96. ETSI IPR POLICY HANDBOOK, *supra* note 44, Annex VII, § 13.2(a).

97. ETSI IPR POLICY HANDBOOK, *supra* note 44, § 7.8.

98. *See, e.g.*, *Origins of FRAND*, *supra* note 17, at 166 (noting Siemens-Motorola license).

level license with Texas Instruments dating to 1992.[99] Going back even further in the telecommunications industry, the Department of Justice's 1956 Consent Decree with AT&T, which applied competition law principles to establish a more competitive telecommunications marketplace, expressly required that AT&T "license their patents to *all applicants*" on reasonable terms.[100]

Even though many licenses are unavailable due to confidentiality restrictions and simple data loss over time during the area of hard-copy records, there are literally hundreds of publicly announced chipset-level licenses for standards, including ETSI standards. Qualcomm said in 2006 that it alone had obtained over one hundred such licenses.[101] Other chip companies have announced such licenses. For example, Broadcom, Texas Instruments, and Intel—all of whom were producers of ETSI-standardized chips—announced chip-level licenses including relevant SEPs.[102] Likewise, in November 1994, Qualcomm settled its litigation with InterDigital, and took a license to use and sublicense InterDigital's CDMA patents and certain future CDMA patents to benefit its component business.[103] In 1998, Qualcomm and Philips Consumer Communications concluded a SEP license, including rights to components.[104] According to an article dated October 2000, announcing the chipset-level license to Philips:

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99. *See, e.g.*, Rudi Bekkers et al., *Intellectual Property Rights, Strategic Technology Agreements and Market Structure: The Case of* GSM 10–11 (Eindhoven Ctr. for Innovation Stud., Working Paper No. 00.15, 2000) (Neth.), https://pure.tue.nl/ws/portalfiles/portal/2215438/545738.pdf; Press Release, Ericsson, Texas Instruments and Ericsson Extend Partnership to Include Advanced Design and Process Technologies (Nov. 19, 1992), http://www.ericsson.com/press/q492.html [https://web.archive.org/web/20010626235828/http://www.ericsson.com/press/q492.html].

100. United States v. Am. Tel. & Tel. Co., 552 F. Supp. 131, 137–38 (D.D.C. 1982) (emphasis added).

101. Qualcomm, Spring 2006 Analyst Meeting 16 (May 4, 2006) ("Over 100 companies have provided licenses to QUALCOMM to pass through a significant number of 3rd party intellectual property rights to our chipset customers.").

102. *See Broadcom, Intel Settle All Litigation, Execute Patent Cross-License*, INTEL (Aug. 8, 2003), https://www.intel.com/pressroom/archive/releases/2003/20030808corp.htm; *Qualcomm and Texas Instruments Enter into Cross-License Agreement*, QUALCOMM (Dec. 3, 2000) [hereinafter *Qualcomm-TI Cross-License Agreement*], https://www.qualcomm.com/news/releases/2000/12/qualcomm-and-texas-instruments-enter-cross-license-agreement.

103. *At Deadline: Patent Dispute Settled*, RCR WIRELESS NEWS (Nov. 7, 1994), https://www.rcrwireless.com/19941107/archived-articles/at-deadline-patent-dispute-settled.

104. BJÖRN HELM, INT'L CTR. FOR STANDARDS RSCH., UNIV. OF COL., STANDARDS AND INTELLECTUAL PROPERTY RIGHTS IN THE AGE OF GLOBAL COMMUNICATION–A REVIEW OF THE INTERNATIONAL STANDARDIZATION OF THIRD-GENERATION MOBILE SYSTEM, at n.23 (2000), https://arxiv.org/ftp/cs/papers/0109/0109105.pdf.

> The move represents Philips' re-entry in the CDMA chip set market. In the mid-1990s, San Diego-based Qualcomm, the pioneer in the CDMA business, license [sic] its chip technology to four companies: DSP Communications (now owned by Intel Corp.), LSI Logic, PrairieComm, and VLSI Technology. Qualcomm licensed the CDMA technology in order to propel this standard in the market.[105]

Qualcomm and Ericsson settled litigation in 1999 and had cross-licensing arrangements for SEPs at least through 3G technologies.[106] Qualcomm and the GSM market leader for chipsets, Texas Instruments, likewise had a publicly announced chip license.[107] Ericsson stated expressly, as recently as 2007, that it would offer licenses to chip companies, along with anyone else who sought a license to its SEPs.[108]

Further guidance regarding ETSI's intent and understanding of its IPR Policy can be taken from the writings of Mr. Karl Heinz Rosenbrock, the ETSI Director-General (ETSI's highest office, analogous to the organization's "CEO") who presided over the development and approval of the ETSI IPR Policy.[109] While Mr. Rosenbrock's writings came somewhat later in time than many of the statements and licenses discussed above, he is uniquely qualified to speak regarding the historical intentions of ETSI, as well as the expressed intents of ETSI participants, the European Commission, and the Member States that approved the ETSI IPR Policy. Mr. Rosenbrock, the highest-ranking ETSI official at the time, personally oversaw:

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105. *Philips Re-Enters CDMA Chip Set Market by Signing Deal with Qualcomm*, EE TIMES (Oct. 3, 2000), https://www.eetimes.com/philips-re-enters-cdma-chip-set-market-by-signing-deal-with-qualcomm/.

106. *See* TCL Commc'ns Tech. Holdings, Ltd. v. Telefon. LM Ericsson, No. 15-cv-02370, 2018 WL 11027100, at *2–3 (C.D. Cal. Feb. 13, 2018) (noting Qualcomm's pass-through rights to Ericsson's 2G and 3G technologies).

107. *Qualcomm-TI Cross-License Agreement*, *supra* note 102. *See generally Texas Instruments Leads 3G Chip Race, but Market Only on First Lap*, RCR WIRELESS NEWS (Oct. 24, 2005), https://www.rcrwireless.com/20051024/archived-articles/texas-instruments-leads-3g-chip-race-but-market-only-on-first-lap.

108. *See* Ericsson, *Patent & Technology Licensing Programs Within Ericsson*, SLIDESHARE (Feb. 10, 2010), https://www.slideshare.net/EricssonFrance/brochure-patent-tech-licensing-programs-ericsson ("[W]e have a patent licensing program that offers licenses to all who wish to use essential patents invented by Ericsson.").

109. KARL HEINZ ROSENBROCK, LICENSING AT ALL LEVELS IS THE RULE UNDER THE ETSI IPR POLICY: A RESPONSE TO DR. BERTRAM HUBER 7–9 (2017), https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3064894; ROSENBROCK, *supra* note 69.

> [T]he genesis, implementation and further development of the ETSI IPR Policy and the ETSI IPR Guide. He participated in the majority of the meetings of the ETSI Special Committee on IPRs (the IPR SC) and also in the consultation meetings between the European Commission and ETSI prior to the establishment of the ETSI IPR Policy.[110]

Later, Mr. Rosenbrock "chaired the ETSI General Assembly Ad Hoc Group on IPR implementation in order to review the operation of the IPR Policy . . . which eventually resulted in the creation of the ETSI Guide for IPRs."[111] As ETSI's chief executive in developing and approving the ETSI IPR Policy, Mr. Rosenbrock is thus distinctively qualified to address ETSI's intent and expectations in establishing the ETSI IPR Policy. Prior to retiring from public life, Mr. Rosenbrock was commemorated by ETSI as ETSI's—first and only—life-long Honorary Director-General.[112]

In addressing the original obligation and intent under the ETSI IPR Policy as it was formulated in the early 1990s, and echoing the contemporaneous record from the ETSI IPR Policy's enactment in 1994 addressed above, Mr. Rosenbrock wrote in 2017:

- "The ETSI IPR Policy allows every company that requests a license to obtain one, regardless of where the prospective licensee is in the chain of production and regardless of whether the prospective licensee is active upstream or downstream."[113]

- "[I]n accordance with Article 3 of the IPR Policy, '*the ETSI IPR POLICY seeks to reduce the risk to ETSI, MEMBERS, and others applying ETSI STANDARDS and TECHNICAL SPECIFICATIONS, that investment in the preparation, adoption and application of STANDARDS could be wasted as a result of an ESSENTIAL IPR for a STANDARD or TECHNICAL SPECIFICATION being unavailable.*' If a license was unavailable to all interested parties who want to

110. Karl Heinz Rosenbrock, *Q&A on the ETSI IPR Policy*, HILLEBRAND CONSULTING ENG'RS, https://www.hillebrand-ce.com/fileadmin/user_upload/downloads/KHR_Q_A_ETSI_IPR_Policy.pdf (last visited Apr. 19, 2023).

111. *Id.*

112. *Id.*

113. ROSENBROCK, *supra* note 69, at 4.

apply the ETSI standard, this goal could not be met. This is a fundamental objective of the ETSI IPR Policy."[114]

- "[T]he IPR Licensing Declaration Form makes no exception for certain categories of licensees. . . . The absence of an explicit option to exclude certain categories of licensees confirms that a license must be available to all interested parties, and is consistent with the fundamental objective described above."[115]

- "[T]he IPR owner must not discriminate in the imposition of terms between different categories of licensees. If the IPR owner cannot discriminate in that way, it certainly cannot go even further and entirely exclude specific categories of licensees from the right to seek a license."[116]

- "It is my opinion that for these reasons, all third parties who want to implement the standard, including manufacturers of components such as chipsets, are therefore entitled to a license, if they seek one."[117]

In sum, based on the historical record at ETSI, from the European Commission, and from ETSI participants and management involved in the creation and implementation of the ETSI IPR Policy, the ETSI IPR Policy was expressly designed to accommodate licenses to any implementer seeking one.[118]

B. FRAND Was Always Designed to Promote and Implement—not Replace—Competition Law

As explained above, FRAND was expressly developed in relation to competition law concerns with abuse of patent rights. The European Commission's 1992 Standards Communication expressly recognized this

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114. *Id.* (citing *2022 ETSI IPR*, *supra* note 51, § 3.1).
115. *Id.*
116. *Id.*
117. *Id.* at 6.
118. Still today, 3GPP publishes material that interprets the ETSI IPR Policy as requiring that licenses be available to all implementers. *See 3GPP FAQ's*, 3GPP, http://www.3gpp.org/contact/3gpp-faqs#L5 (last visited Apr. 19, 2023) (noting all 3GPP member IPR policies, including the ETSI IPR Policy, "require IPR holders to make licences available to all third parties, whether or not they are 3GPP Individual Members, under fair, reasonable and non-discriminatory (FRAND) terms").

connection and instructed that FRAND licensing was designed to support competition law.[119]

For example, the Commission's 1992 Standards Communication notes that "[a]n important consideration in the successful management of standardization involving intellectual property rights must also be the application of the competition rules."[120] The "[a]buse of a dominant position . . . could manifest itself by the activities of imposing unfair purchasing prices."[121] Moreover, "excessive pricing . . . could amount to a *de facto* refusal to license."[122] The Commission's focus on FRAND compliance as a competition law issue was echoed two decades later in its *Motorola* decision, wherein the Commission explained that "[t]he ETSI IPR Policy seeks to prevent patent 'hold-up.'"[123]

The Commission's statements in the 1992 Standards Communication demonstrate that its understanding was that FRAND be approached as a tool to serve the public interest. The Commission stated, "[t]he underlying objective of formal standardization is to generate the economic benefits for society that will result from a more rational organization of supply and demand and greater competition in the market place."[124] As such, it was expressed that the ETSI FRAND obligation should be applied in view of competition law principles and in support of the public interest.[125]

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119. *EC 1992 Standards Communication*, *supra* note 38, § 5.1.1.

120. *Id.*

121. *Id.* § 5.1.6.

122. *Id.* § 5.1.14.

123. European Commission Decision, AT.39985 – Motorola – Enforcement of GPRS Standard Essential Patents, 2014.

124. *EC 1992 Standards Communication*, *supra* note 38, § 2.1.11.

125. The U.S. courts have held that FRAND must be interpreted and applied consistent with the public interest. Microsoft Corp. v. Motorola, Inc., 795 F.3d 1024, 1030–31, 1051–52, 1052 n.22 (9th Cir. 2015) (noting that a RAND commitment "must be construed in the public interest because it is crafted for the public interest") (citations omitted); *see also, e.g.*, NATIONAL RESEARCH COUNCIL, PATENT CHALLENGES FOR STANDARD-SETTING IN THE GLOBAL ECONOMY: LESSONS FROM INFORMATION AND COMMUNICATIONS TECHNOLOGY 53 (Keith Maskus & Stephen A. Merrill eds., 2013) ("Absent a FRAND or other commitment, the owner of a patent has no obligation under the policy to license others to use the patent on any terms. On its face, a FRAND commitment is intended to constrain the freedom that a right holder otherwise has to refuse to license its technology and subsequently enforce its rights. It is understandable that members of a SSO would insist that the organization seek obligations to license patents that are essential to make or use products that comply with a standard. The purpose of an interoperability standard is to coordinate industry activity and take advantage of the economic benefits of scale economies and network effects. These benefits cannot be achieved without widespread licensing of the patented technology that is essential to practice a standard.").

C. *Royalties for SEPs Were Designed to Be "Reduced" in View of the Increased Market Created by Standardization*

The Commission's 1992 Standards Communication likewise addressed FRAND's requirement that royalties for SEPs remain "reasonable." It explained that the reasonableness of FRAND terms must be considered in view of the "enhanced market opportunities which standardization [of the SEP owner's] technolog[ies] might bring" and in view of the "greatly increased market" for licensing attributable to standardization.[126]

The contemporaneous documents from ETSI participants are even more specific. For example, according to the 1995 ETSI IPR Handbook:

> The test to be applied to royalty rates is that they should represent a balance between the need for the owner of an Essential IPR to obtain a fair return on his investment and the enhanced market opportunities created by standardization. In other words, royalty rates, although they may have some connection to normal commercial rates, should be *reduced* because of the enhanced economic power conferred by the Standard. *Possession of an Essential IPR is not to be a passport to windfall profits.*[127]

This concern with preventing "windfall profits" to patent holders was not a new concern for ETSI but had always been the case in its approach to IPR matters. For example, many years earlier in October 1987, these same concerns regarding "windfall" profits were noted in meeting minutes from ETSI's precursor, CEPT/GSM, which stated:

> A standards body such as the GSM needs to make itself aware, as far as it is reasonably possible, the extent of the IPR implications that may exist before adopting a standard. Otherwise such a standard may bestow a "windfall" monopoly position for an individual supplier. This becomes even more essential when the standard is a mandatory standard.[128]

Furthermore, the ETSI IPR Policy was directed towards addressing issues with "royalty stacking" and cumulative royalties, as those issues were expressly identified at the time as problems to be addressed by the

126. *EC 1992 Standards Communication*, *supra* note 38, §§ 4.3.3, 4.3.7.
127. ETSI IPR POLICY HANDBOOK, *supra* note 44, Annex VII, § 8.3 (emphasis added).
128. *Intellectual Property Issues*, *supra* note 41.

ETSI IPR Policy. For example, the 1995 ETSI IPR Handbook notes that "[w]here a Standard, or work item, has several Essential IPRs associated with it, the issue of cumulative royalties may be of concern to ETSI Members, and others having an interest in exploiting the Standard"[129] and also identifies "problems with cumulative royalties" as a potential reason to halt development of an ETSI standard.[130]

In view of these historical statements and perspectives, the ETSI IPR Policy should not be applied so as to permit SEP owners to maximize their royalty terms or take advantage of the enhanced licensing opportunities for their technologies made possible by standardization. Instead, the historical record is express that SEP owners would be permitted fair royalties based on the value of their contributed inventions, but not any additional compensation due to the added value created by standardization itself, or the value of downstream devices incorporating standardized components.[131]

D. Discrimination Was Viewed as a Distinct Requirement, Establishing that FRAND Compensation Should Not Materially Differ as Between Licensees

As noted above, the 1992 EC Standards Communication expressly mandated that all implementers would need to have access to licenses, regardless of whether they were members of the relevant SSO or not.[132] ETSI participants further commented that the ETSI IPR Policy was set up such that while "licenses to different users need not be on identical terms, *there must be no material discrimination between licensees*."[133] This was viewed as a way to facilitate market access for new and smaller

129. ETSI IPR POLICY HANDBOOK, *supra* note 44, § 3.3.

130. *Id.* Annex VII, § 15.1.

131. *See, e.g.*, Ericsson, Inc. v. D-Link Sys., Inc., 773 F.3d 1201, 1233 (Fed. Cir. 2014) ("[A] royalty award for a SEP must be apportioned to the value of the patented invention . . . not the value of the standard as a whole."). It was further recognized by the Commission that, because standardization creates much larger markets and licensing opportunities for patented technologies that are incorporated, this market expansion function of standardization creates strong incentives for patent holders to contribute their patented technologies. *EC 1992 Standards Communication*, *supra* note 38, § 4.3.3. But the Commission likewise notes that standards need not always focus on securing contribution of the "best" technologies from their members; rather, "the most innovative technology may not be the most appropriate for adoption as a standard because it is not yet stable and sufficiently tested in the market place." *Id.* § 2.1.14. Or, as one contemporaneous source bluntly put it in 1995, "ETSI Standards need not be based on the 'best available technology.'" ETSI IPR POLICY HANDBOOK, *supra* note 44, Annex VII, § 7.5.

132. *EC 1992 Standards Communication*, *supra* note 38, § 6.2.1(2).

133. ETSI IPR POLICY HANDBOOK, *supra* note 44, Annex VII, § 13.2(b) (emphasis added).

market entrants (e.g., SMEs) and to prevent larger, entrenched companies from using standardization and associated SEPs to protect and expand their market power.[134]

The understanding of nondiscrimination as an independent obligation was further emphasized in 2003 by ETSI's IPR Ad Hoc Group. That group's report to the ETSI General Assembly notes:

> "Fair and reasonable" is a different question from the question of what is discriminatory. If a company wants to charge a 25% royalty of the price of every handset to every company in the industry for the same royalty price everywhere, it is arguably not being "discriminatory" but the price is so high as to be "unfair and unreasonable."
>
> In contrast, if a company (licensor) is attempting to charge two different companies (potential licensees) two different rates where one monetary consideration rate (actual payment of Euros) is 2 times as high to one potential licensee versus the other, and the two potential licensees are in the same patent (possible cross-license consideration to trade) and business position with respect to the licensor, then there is an argument that this is "discriminatory."[135]

As such, it appears that ETSI participants understood that the nondiscrimination obligation operated independently to restrict "material discrimination between licensees."[136]

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134. *See Intellectual Property Issues*, *supra* note 41, Annex V, § 2(b) (addressing "serious risk of distortion of market forces against SMEs and in favour of large multinationals" if discriminatory licenses were permitted); *see also* ETSI IPR POLICY HANDBOOK, *supra* note 44, Annex VI, § 8(e) (addressing potential abuses of standards: "The motivation for granting discriminatory terms could be the subversion of the standardization process itself. If everyone is faced with excessive royalties, the will to change a standard may be considerable. However, where SMEs, only, are charged excessive royalties, larger companies will lack the motivation to change the affected standard. . . . To sum up, a potential standards user might regard any behaviour, by the owner of an essential IPR, which unreasonably impedes, or delays, his access to a market for standardized products as abusive, such behaviour might include . . . any behaviour designed to impede, or delay, market entry by new players, especially SMEs.").

135. European Telecommunications Standards Institute [ETSI], *Report of the GA Ad Hoc Group on ETSI's IPR Policy Operation*, at 4.4, ETSI/GA42(03)20 (Nov. 25–26, 2003).

136. ETSI IPR POLICY HANDBOOK, *supra* note 44, Annex VII, § 13.2(b).

V. CONCLUSION

The historical materials documenting the development and approval of the ETSI IPR Policy, as well as the statements of its participants and the ETSI Director-General that oversaw creation of the IPR Policy, must be considered in assessing its application and understanding. As set forth above, these materials demonstrate that the ETSI IPR Policy should be interpreted in accordance with the 1992 Commission Standards Communication, and in particular that:

1. ETSI and ETSI participants understood that SEP owners would have an obligation to offer FRAND licenses to any implementer that was seeking such a license, so as to facilitate—not exclude—market access for any stakeholder;

2. The practice of FRAND licensing was expressly developed and adopted so as to promote and implement, rather than replace, competition law principles;

3. Royalties for SEPs were viewed as adequate compensation to patent holders, and indeed would be reduced on a per unit basis in view of the widespread licensing markets created by standardization, and in view of expressed concerns to prevent royalty stacking; and,

4. Nondiscrimination was developed as a distinct requirement, to prevent material discrimination as between implementers, and in particular to prevent discrimination against small or medium sized businesses seeking to participate in the market.