THE EUROPEAN COMMISSION’S DRAFT “PROPOSAL FOR A REGULATION OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL ON STANDARD ESSENTIAL PATENTS” IS UNNECESSARY AND HARMFUL

ALDEN F. ABBOTT
Senior Research Fellow and Director, Competition Policy Project, Mercatus Center at George Mason University

CHRISTINE MCDANIEL
Senior Research Fellow, Mercatus Center at George Mason University

SATYA MARAR
Visiting Postgraduate Fellow, Mercatus Center at George Mason University

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INTRODUCTION
We welcome the opportunity to provide comments and analysis to the European Commission (EC) on its proposed regulatory framework for licensing of standard essential patents (SEPs), and we trust that the views we express will assist the EC.

Founded in 1980, the Mercatus Center at George Mason University is the world’s premier university-based source for market-oriented ideas—bridging the gap between academic ideas and real-world problems. The Mercatus Center advances knowledge about how markets work by training graduate students, conducting research, and applying economics to offer solutions to society’s most pressing problems. Our mission is to generate knowledge and understanding of the institutions that affect the freedom to prosper and to find sustainable solutions to overcome the barriers that prevent individuals from living free, prosperous, and peaceful lives. This comment, therefore, does not represent the views of any particular affected party or special interest group; it is intended to assist the EC in its decision-making.

We wish to address the following: To what extent would the proposed regulation achieve its goal of fostering a balanced, smooth, efficient, sustainable, and predictable framework for SEP
licensing that promotes innovation and balances the interests of both SEP holders and implementers? To what extent is it necessary? What are its likely and potential impacts?

We raise the following points for the EC’s consideration:

1. There is scant evidence that the existing SEP-licensing regime is unbalanced and inefficient or that it allows SEP holders to capture excessive profits.
2. By attempting to regulate technology prices, limiting patent rights enforcement, and increasing delays in SEP licensing negotiations, the proposed regulatory framework would devalue SEPs and increase commercial uncertainty. Thus, it would curtail incentives to invest in innovation and would harm consumers while undermining the international competitiveness of European economies.
3. The proposed regulatory framework would task the European Union Intellectual Property Office (EUIPO) with responsibilities that it lacks the experience and expertise to perform competently and accurately.
4. The proposed regulatory framework punishes European inventors to the benefit of the geopolitical and strategic objectives of the European Union’s competitors, including the People's Republic of China.

The proposed regulatory framework for SEPs is likely to harm consumers and innovation if implemented, and it is not needed.

THE PROPOSED REGULATORY FRAMEWORK GOVERNING SEPs IS UNNECESSARY AND IMPOSES COST AND RESOURCE-INTENSIVE RESPONSIBILITIES ON AN AGENCY THAT LACKS COMPETENCE

Standardization fosters the widescale, global uptake of foundational technologies as firms coordinate behavior by agreeing upon interoperability standards that let complementary innovations interact seamlessly. Standardization also provides the commercial incentive necessary for private parties to invest substantial resources into researching and developing these technologies in the first place. Providing legally enforceable protections for SEPs—patents that cover the technology that is needed to practice a standard—is vital for maintaining these incentives. Once a patent is found to be an SEP, a commitment to licensing the patent on fair, reasonable, and nondiscriminatory (FRAND) terms is desirable for efficient widescale adoption of a standard that still affords SEP holders the incentive to produce future inventions.

Hence, negotiations around rates of return for SEP licenses are highly complicated. They are characterized by complex incentives, they typically involve technologically and commercially sophisticated parties, and they can be dramatically and adversely affected by even minor shifts in policy. It is thus submitted that limitations or shifts in policy with regard to SEP licensing should be

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based on empirical data and a critical appraisal of the likely and potential consequences for global patent markets and innovation-driven industries.

Theoretical claims have been made that the current SEP regime lets holders “hold up” innovation and reduce new technology uptake by levying excessive fees above the incremental contribution of their innovation to finished products. Such claims are premised on the notion that manufacturing firms that have made the large investments necessary to comply with and implement an accepted technological standard are at an inferior bargaining position to SEP holders, who can extract value from the implementers on the basis of the necessity of incorporating the SEP for compliance with the standard rather than on the basis of the actual economic contribution of the individual incorporated SEP to the end product. Thus, protections for SEP holders would slow innovation and ultimately hurt consumers. These negative impacts are exacerbated when multiple complementary SEPs that each require a royalty payment to the relevant SEP holder must be licensed by implementers of new technologies.

Empirical research provides little support for this hypothesis. SEP-dependent industries in the United States experience the most rapid quality-adjusted price decreases in the economy relative to other industries—thus indicating that these industries are at least as efficient, and are not imbalanced, relative to others. The aforementioned study also found no evidence that court judgments reducing SEP holder power increase innovation. Other research specific to SEP-reliant industries finds that SEP holders in these fields are not capturing supranormal rents. For instance, “the profit margins of top mobile device manufacturers (one of the most important SEP-reliant industries) typically range from twenty to forty percent, which implies that their quasi-rents are not being captured.” Another study finds that SEP holders under the status quo routinely sacrifice short-run profit maximizing returns from their monopoly over the SEP by offering lower royalty rates to obtain long-term gain from greater or rapid uptake of the technology by implementers. Indeed, “royalty stacking” (whereby holders compound the fees they levy for implementing new technologies by charging an excessive royalty for each complementary patent necessary to deploy the new technology) may be a suboptimal and nonprofit maximizing strategy for SEP holders.

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because it reduces the profitability of the new technology and the incentive to implement it.\textsuperscript{9} This proposition is supported by empirical evidence from the cumulative royalty rates earned by SEP holders in the SEP-intensive mobile device industry, which fall within the 3 to 5 percent range—significantly lower than what would be predicted under royalty stacking.\textsuperscript{10} Research also shows that royalty rates for patents are decreasing as more patents are licensed, possibly reflecting the impact of technological change on making inventions obsolete.\textsuperscript{11} Scholars also observe that existing negotiations between SEP holders and implementers seeking to license the SEP produce an incentive for holders to offer nonexcessive royalty rates. This reflects the fact that holders and implementers may agree to royalties equivalent to a share in the implementers’ profits, which are likely to be reduced if the rates offered by the SEP holders are excessive.\textsuperscript{12}

Conversely, regulatory and judicial interventions that undermine the negotiating power of SEP holders could increase incentives for innovation “holdout” by implementers. This occurs when implementers disregard patent-licensing requirements and fees because the cost increases to SEP holders for enforcing their patent rights, due to regulatory interventions that increase the complexity and requirements for securing judgments that punish infringement, make it less likely that they will undertake litigation.\textsuperscript{13} This phenomenon reduces innovation and harms consumers by discouraging the asset-specific investment needed to develop new SEPs.

Furthermore, European Union courts have already attempted to balance incentives for “holdup” and “holdout.” For instance, in Huawei v. ZTE, the Court of Justice of the European Union (CJEU) ruled that SEP holders and implementers must negotiate royalties in good faith before they can seek judicial remedies.\textsuperscript{14} Judicial institutions, such as the CJEU and lower courts, possess competence, expertise, and experience in adjudicating these complex disputes and balancing the interests of opposing stakeholders. By contrast, the proposed regulatory framework imposes such responsibilities on the EUIPO, a body that “will never have the competency in patents,” per the admission of its own executive director.\textsuperscript{15} It would afford the EUIPO the ability to make contrary determinations to judicial organs that possess greater expertise and experience in the area and that are hence more likely to make sound judgments with regard to policy.

\textsuperscript{9} Benjamin Klein, Robert G. Crawford, and Armen A. Alchian, “Vertical Integration, Appropriable Rents, and the Competitive Contracting Process,” Journal of Law and Economics 21, no. 2 (1978): 297, 301. See also Auer and Morris, “Governing the Patent Commons.” 309. “Royalty stacking may cause SEP holders to earn profits that are markedly below the monopoly benchmark (because double marginalization reduces each firm’s profits) and may lead to the dissipation of implementers’ quasi-rents (their rents are extracted by upstream firms). When this occurs, it drastically reduces output, investments, and innovation.”


\textsuperscript{14} Huawei Technologies Co. Ltd. v. ZTE Corp., ECLI:EU:C:2015:477 (2015).

\textsuperscript{15} Trevor Little, “A Year at the EUIPO: An In-depth Interview with Executive Director Christian Archambeau,” World Trademark Review, June 30, 2022.
Therefore, it is unlikely that regulatory reforms that undermine SEP holder power in negotiations will increase innovation. Rather, a regulatory innovation that empowers the EUIPO to make SEP determinations is more likely to foster erroneous, economically inefficient decisions.

The proposed regulatory framework is likely to undermine SEP royalty negotiations and to increase uncertainty and the risk of holdup and holdout. The proposed regulatory framework seeks to promote transparency around SEP royalties by making them public through many mandated procedures to improve the negotiating ability of implementers. It would allow holders and implementers to apply for nonbinding determinations of FRAND royalty rates for SEPs from third-party arbitrators, and it would allow them to ask the EUIPO to recommend an aggregate royalty rate if they cannot ultimately agree on one. It also would introduce a nonbinding system of sampling checks to determine the essentiality of an SEP to the underlying standard to be conducted by independent evaluators selected by the EC in accordance with a methodology to be determined by the EC.

The nonbinding royalty rates and essentiality determinations could be adopted by courts adjudicating FRAND disputes across many countries. This would undermine interjurisdictional competition, whereby jurisdictions compete to become the “forum of choice” for disputes, thus encouraging them to adopt novel approaches that facilitate commerce and innovation because the most preferable and trusted forums would attract more parties. Alternatively, courts may ignore nonbinding recommendations, resulting in expensive and time-consuming albeit inconsequential procedures that add no meaningful benefit to negotiations. This could delay negotiations and technology adoption while increasing costs for the parties and providing those parties engaging in holdup behavior with additional incentives and means for doing so. For instance, implementers may delay the negotiation process or delay payment of royalties as part of holdout.

There are also concerns posed by the proposed regulatory framework’s suggested approach for making nonbinding royalty recommendations. It proposes the establishment of a cumulative standard for royalties, as well as for calculated shares of royalties for each SEP holder, through a top-down approach. That approach divides an aggregate royalty rate for a technology standard among all SEP holders, with each holder receiving a proportional share based on the number of patents it holds. It would do so regardless of whether SEP holders who have contributed to a standard have already announced or agreed upon rates of their own. Such an approach can be unreliable, misleading, and inaccurate because it relies on patent counting, which treats each patent in a standard as having equal value, even though the economic value of an SEP and the degree of importance that its contribution has to the standard can vary significantly. This approach may also result in aggregate royalty rates being published for SEPs that are eventually found to be invalid by courts. Such top-down approaches have also been rejected in recent court decisions owing to their flaws. For instance, a recent UK judgment ruled there was “no value” in the top-down

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patent royalty rate estimation approach proposed by the plaintiff,\textsuperscript{17} and a US decision that used this method in its ruling was quashed on appeal by the US Court of Appeals for the Federal Circuit.\textsuperscript{18}

The top-down approach to producing a single recommended aggregate royalty rate for SEPs also disregards the flexibility and adaptability enabled by private negotiation, whereby the chance of holdup through royalty stacking is averted through tailored contract mechanisms, such as reducing the royalty rate if the licensed SEP is combined with another SEP held by the same owner. This is especially suitable when “a licensed product is later combined [i.e. ‘bundled’] into a single saleable unit with another product that is not covered by the patented technology.”\textsuperscript{19} Other potential flexible mechanisms left unaccounted for by the top-down royalty estimation and recommendation approach include running royalties, lump-sum license fees, payments dependent on milestones achieved by the licensee, payments as a share of profits, and payment through equity in the licensee’s firm.\textsuperscript{20} These mechanisms address important compensation questions that a singly aggregate royalty rate fails to account for. The mechanisms are tailored by parties on the basis of not only the individual product or technology involved but also the industry dynamics at the time. For instance, an inventor may consider a combination of running royalties and lump-sum royalties where the downstream industry in question is characterized by imperfect competition.\textsuperscript{21} Royalty estimates and recommendations that do not adequately take the presence of bundling into account, for instance, are likely to be higher. If such recommendations are adopted, then it could place upward pressure on prices for consumers because of increasing implementation costs.\textsuperscript{22} Tailored royalty structures increase the incentives of implementers (licensees) to efficiently invest in deploying the invention and to share information about the invention’s use with the SEP holder or inventor.\textsuperscript{23}

Delays, increased costs, and the undermining of property rights enforcement would also arise from the proposed regulatory framework’s stipulation that SEP holders cannot assert their rights against infringers in any national court within the EU or at the Unified Patent Court until after the EUIPO has produced its nonbinding royalty rate recommendation—a process that would take an estimated nine months,\textsuperscript{24} regardless of deliberate holdout or evident or egregious intellectual property infringements. This delay is especially costly and burdensome for SEP holders and

\textsuperscript{17} Interdigital Technology Corporation and Ors v. Lenovo Group Ltd. (FRAND Judgment – Public Version), EWHC 539 (Pat) (2023).


\textsuperscript{22} Spulber, The Case for Patents, 219.


investors in SEP development in the context of innovative and rapidly evolving technical industries, where new technologies are constantly emerging and replacing others.

Delays are also likely to be even greater than the estimates postulated by the EC in its proposed regulatory framework. For instance, we refer to the comments on the proposed regulatory framework from former senior US government officials in both Republican and Democratic administrations.\textsuperscript{25} They note that the framework “appears to permit an unlimited number of stakeholders to participate in each aggregate royalty determination, yet contemplates that the aggregate royalty determinations will be able to occur within six months from the appointment of a conciliator tasked with mediating the aggregate royalty discussions.”\textsuperscript{26} Therefore, they conclude that the proposed regulatory framework “appears to vastly underestimate how difficult it will be to reach consensus on the determinations tasked to the EUIPO.”\textsuperscript{27}

The proposed framework’s singling out of prices also leaves behind other equally important aspects of SEP royalty negotiations, such as conditions for terminating the license, cross-licensing terms, jurisdiction for dispute resolution, and penalties or remedies under the contract. The importance of these terms to the suitability of finalized royalty agreements between holders and implementers means that even if the proposed framework were to result in more consistent pricing across SEP royalty agreements, it would still fail to provide like-to-like comparisons.

The sampling tests to be used for essentiality determinations also raise concerns. Some studies suggest that to avoid significant margins of error, sample sizes need to be large—including thousands of patents—rather than the 100 patent-size sample pools from each SEP holder or underlying standard that the proposed regulatory framework contemplates.\textsuperscript{28} Without a single, widely accepted method for conducting such determinations around large patent portfolios, the determinations are likely to be unreliable and imprecise even if the proposed framework requires that the method used produce results that are statistically valid. The essentiality determinations are thus likely to delay rather than facilitate negotiations while introducing further complications, confusion, and opportunities for parties to engage in holdup and holdout. They will also raise costs in both resources and time for SEP holders.\textsuperscript{29} Given that the EC and its appointed evaluators would be faced with making essentiality determinations across thousands of standards, these costs may render the task impractical or nonadministrable. The task would also be duplicative and redundant in many cases, since Standards Setting Organizations for SEPs already maintain databases of SEPs for various technology standards and choose SEPs to adopt and standardize on the basis of the


\textsuperscript{26} Varney et al., “Comments on European Commission’s Draft,” 4. To support their assertion that an unlimited number of stakeholders may be able to participate in each aggregate royalty determination, Varney and colleagues cite “Proposal for a Regulation of the European Parliament and of the Council on Standard Essential Patents and Amending Regulation,” (EU)2017/1001, Article 18, European Commission, April 27, 2023. The six-month timeframe is found in Article 19(4) of the same document.

\textsuperscript{27} Varney et al., “Comments on European Commission’s Draft.” 4.

\textsuperscript{28} Keith Mallinson, “Essentiality Checks Might Foster SEP Licensing, but Do Not Stop Over-Declarations from Inflating Patent Counts and Making Them Unreliable Measures” (WiseHarbor, Boston, November 16, 2022).

\textsuperscript{29} An EC pilot study of essentiality determinations by patent pools found that such determinations cost up to €10,000 per pool under processes that took two to three days to carry out. See Rudi Bekkers et al., Proposal for Regulation of the European Parliament and of the Council on Standard Essential Patents (EUR 30111 EN, Publications Office of the European Union, Luxembourg, 2020).
patented invention’s underlying contribution to the technology’s value. Determinations about whether an SEP is essential to an underlying standard also leave unanswered questions about whether an SEP is valid, whether a specific product infringes an SEP, and the degree of importance or relative contribution of the specific SEP to the underlying technology and the value of the SEP. Therefore, essentiality determinations are unlikely to significantly reduce the scope for expensive litigation even if parties accept the nonbinding determinations.

THE PROPOSED REGULATORY FRAMEWORK UNDERMINES EUROPEAN AND WESTERN INNOVATION, PROPERTY RIGHTS, SEP VALUES, AND INTERNATIONAL COMPETITIVENESS WHILE BENEFITING THE GEOPOLITICAL AND ECONOMIC OBJECTIVES OF RIVAL JURISDICTIONS LIKE CHINA

The EC’s proposal to intervene in private SEP royalty and essentiality negotiations between implementers and inventors of new technologies sends encouraging signals to foreign jurisdictions that are contemplating similar reforms. For instance, the Chinese government and its courts have long sought to favor the interests of Chinese implementers, especially when it comes to foreign- or EU- and US-owned SEPs. They have attempted to overrule global FRAND royalty rate disputes to favor their own implementer firms. In many cases, these firms (for example, Huawei) have close links to the Chinese government and benefit from substantial government subsidies that allow them to undercut foreign competitors for critical and often politically sensitive infrastructure projects in other nations.

The proposal is also likely to embolden US legislators and regulators who are contemplating similar ideas, especially if they have incentives to retaliate with similar policies should the EC regulatory framework undermine the value of US-owned SEPs. For instance, US legislators have already proposed the Standard Essential Royalty Act (SERA), which would overrule the FRAND rate determinations of overseas jurisdictions that pertain to US patents.

The net effect is likely to be the undermining of SEP values, rights, investment, and innovation across western nations. Adoption of the proposal would also encourage politicized oversight and favor state-owned or subsidized firms in the countries that implement regulations instituting top-down calculation or limitation of FRAND royalty rates for SEP licenses. Importantly, rival jurisdictions to the EU, such as China, may resort to similar reforms that impose binding rather than nonbinding

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31 For instance, a UK dispute involving four patents found that two out of four were essential, valid, and infringed, but that the other two were invalid and their essentiality and whether they were infringed were thus irrelevant questions. See Unwired Planet International Ltd. v. Huawei Technologies Co. Ltd. & Ors EWHC 94 (Pat) (2016).
32 For instance, a study of SEP litigation in the United States found that specific products did not infringe the SEP that was the subject of the dispute in nearly 70 percent of cases. See Mark A. Lemley and Timothy Simcoe, “How Essential Are Standard-Essential Patents?,” Cornell Law Review 104 (2018): 607–42.
33 See Little, “A Year at the EUPO.”
royalty rates for European SEPs, thus undermining European innovation and property rights to an even greater degree while raising the relative competitive position of state-backed foreign firms.

In doing so, it would contradict and undermine the existing geopolitical and trade policy objectives of the European Union. For instance, in December 2022, the EU requested the creation of a panel to examine the Chinese government’s practice of preventing patent owners from asserting their rights against infringers in European courts using antisuit injunctions. It did so under the World Trade Organization Agreement on Trade Related Aspects of Intellectual Property Rights (TRIPS Agreement), Article 64.1, arguing that China’s obligations under the TRIPS Agreement, Article 28, were violated as a result of China’s limiting SEP holders’ ability to establish licensing agreements and preventing them from utilizing national courts to enforce their legitimate intellectual property rights. Similarly, the proposed regulatory framework prevents European patent owners from accessing European courts to enforce their legitimate intellectual property rights until after the EUIPO has concluded the lengthy process of producing its nonbinding royalty rate recommendation.

CONCLUSION

Intellectual property–intensive industries are responsible for more than 75 percent of trade within the European Union and generate nearly one-half of total economic activity in the European Union. These value-creating industries help to maintain the EU’s external trade surplus. The proposed draft regulatory framework concerning SEPs and royalty determinations would threaten and undermine this value creation ecosystem as it

- Would increase rather than reduce incentives for anti-innovation and anti-consumer holdup and holdout
- Is proposed for addressing a problem whose existence has scant empirical support
- Would introduce unnecessary delays, complexity, and commercial uncertainty into SEP royalty negotiations
- Would significantly increase bureaucratic costs and costs to SEP investors in such disputes
- Would override competencies of existing courts while conferring responsibilities on bureaucratic agencies that lack such competence and experience
- Would undermine innovation, investment, output, and the value of and ability to enforce intellectual property rights in European and western countries
- Would undermine the EU’s geopolitical and trade policy objectives with regard to rival jurisdictions such as China

For these reasons, there is no need to implement the proposed regulatory framework, which would likely harm consumers and deter innovation if it is implemented.