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Patent rights for standard essential patents and abuse of dominant position

From the interaction between the two to a
comparison of existing and proposed
solutions

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Abstract

The thesis explores the interaction between patent rights for Standard Essential Patents(SEP) and competition law, particularly Article 102 of the Treaty on the Functioning of the European Union(TFEU), within the context of the European Union(EU) , and compares this interaction with the relevant provisions in the proposed EU SEP regulation COM(2023)232. Three research questions will be discussed: What is the interaction of patent rights for SEPs and article 102 TFEU? How does the proposed EU SEP Regulation intend to regulate the exercise of patent rights for SEPs? And what are the main similarities and differences between the current situation and proposed regulation? Potential abusive behaviors include seeking injunction, refusing to license and excessive royalty rate. The proposal establish a competence center at the European Union Intellectual Property Office to administer registry, database, essentiality checks, aggregate royalty, Fair, Reasonable, and Non-discriminatory(FRAND) determination, etc. The main similarities between current situation and EU proposed regulation are they both emphasize transparency and have procedural safeguards of FRAND terms.The differences are the proposal focus more on implementers and it establishes a framework for en-ante essentiality check. This thesis emphasizes the importance of seeking legal regulatory approaches within the EU that balance the SEPs and abuse of dominant position as well as balancing the interests of SEP holders and implementers, stimulating innovation in the EU market as well as establishing a level playing field in the internal market.

Keywords: Standard essential patent, Abuse of dominant position, Similarities, Differences

Abbreviations

ADR	Alternative Dispute Resolution
ARB	Aggregate Royalty Burden
CEN	European Committee for Standardisation
CENELEC	European Committee for Electrotechnical Standardisation
CJEU	Court of Justice of the European Union
EC	European Commission
ECJ	European Court of Justice
EPO	European Patent Office
ETSI	European Telecommunications Standards Institute
EU	European Union
EUIPO	European Union Intellectual Property Office
FRAND	Fair, Reasonable, and Non-discriminatory
ICT	Information and Communication Technology
IEC	The International Electrotechnical Commission
IoT	Internet of Things Fields
IP	Intellectual Property
IPR	Intellectual Property Right
ISO	International Organization for Standardization
ITU	International Telecommunication Union
LTE	Long Term Evolution
NDRC	National Development and Reform Commission
SDO	Standards development organizations
SEP	Standard Essential Patents
SME	Small and Medium-sized Enterprises
SSO	Standard Setting Organizations

TFEU	The Treaty on the Functioning of the European Union
TRIPS	The Agreement on Trade-Related Aspects of Intellectual Property Rights

1 Introduction

1.1 Background

With the rapid development of the knowledge economy in today's society, standard essential patents (SEP) are more and more important to the development of technology. Patents stimulate technological innovation and development, and standards ensure rapid diffusion of technologies and interoperability between products. Standardization is particularly crucial in the information and communication technology (ICT) and Internet of Things fields (IoT) (consumer electronics, automotive industry, and electricity grid industry)¹. For example, the wireless communication technologies such as web browsers, 4G, 5G, and WiFi networks included in smartphones all rely on uniform standards, so that different vendors can design and produce devices according to the same standards to ensure product interoperability and compatibility on a global scale.

Standard essential patent is a product of technology standardization. On the one hand, a standard essential patent has the characteristics of a general patent right, which is used to protect the technology contained in the standard. It belongs to the category of intellectual property and needs to be protected. On the other hand, standard patents are essential compared to ordinary patents because the implementation of standards requires the use of inventions covered by the relevant SEP², it has the potential monopoly nature and the right holder has the ability to pursue the maximization of self-value through the standard essential patent. In the same or related industries in the same market, undertakings with the essential technology to meet industry standards have a high probability of enjoying market power³. If such an undertaking with a patented essential technology unreasonably excludes other competitors in the market from producing products of the same standard by means of patent protection, it will hinder the interoperability of products between devices of different companies in the market, hinder economies of scale and the development of product substitutes, cause an unfair market competition environment, and ultimately harm the legitimate rights and interests of consumers. Within the EU, a SEP has two attributes. SEPs are subject to both competition law, particularly Article 102 of the Treaty on the Functioning of the European Union (TFEU) which prohibits the abuse of dominant positions, and Intellectual Property Law which protects technical inventions.

Standard essential patents cover essential technologies necessary to implement specific technical standards. Without these patents, other manufacturers cannot legally produce products that meet the standards. However, there are no specific

¹ Bonadio, E., Tanwar, A., 'Case law on standard essential patents in Europe', ERA, Forum 22, 601–618 (2021). <https://doi.org/10.1007/s12027-021-00690-6>.

² Tambiama Madiaga, 'Standard essential patents regulation', European Parliamentary Research Service, PE 754.578 – November 2023, p.2.

³ G. Bruzzone, M. Boccaccio, 'Standards under EU Competition Law: The Open Issues, Competition Law and Intellectual Property', in G. Caggiano (ed.), G. Muscolo, at p. 90.

European Union(EU) or national rules on SEPs, and so far they have only been subject to competition law limitations. For example, standard setting and the related FRAND obligation are governed by the Guidelines on the applicability of Article 101 of the Treaty on the Functioning of the European Union to horizontal co-operation agreements and the 2015 Court of Justice of the European Union(CJEU) landmark ruling in *Huawei v ZTE*⁴. Currently, SEPs are declared to the standards development organizations (SDOs)⁵ which bring together experts, industry stakeholders, and government representatives to create and maintain standards in a consensus-based process. By including stakeholders in the SEP designation process, SDOs utilize a market-driven approach to determine which patented technologies are required for the entire industry's success⁶. Thus, SDOs typically require SEP owners to make an irrevocable commitment that they are prepared to grant licenses to competitors under FRAND terms (fair, reasonable, and non-discriminatory)⁷. However, when the undertaking holding the SEP patent right and the manufacturer seeking to use the technology cannot agree on terms (consistent with the commitment to the FRAND license), patent disputes are inevitable. However, today, what amounts to FRAND terms is a matter of hot debate in the courts of many countries around the world, with different courts often disagreeing even where the facts are similar⁸.

The European Union is one of the most active regions in the world for standard setting and has a significant influence on the construction of the standard essential patent system on a global scale. The success story of the *Huawei v ZTE* judgement is constituted on successfully balancing the bargaining powers between SEP owners and producers of smart phones and other telecommunications devices relying upon these patents⁹. The findings of CJEU established a framework for SEP holders and implementers to negotiate licensing agreements in good faith while avoiding abusive conduct, it provided guidance on the steps that SEP holders and implementers should follow to ensure compliance with EU competition law, particularly Article 102 of the TFEU¹⁰. Although *Huawei's* decision in 2015 was praised for its balanced approach and influenced the subsequent decisions of national courts on similar standard essential patent cases, there were also shortcomings. For example, it has been criticized for being too vague in some aspects, requiring all parties to negotiate in "good faith", also, what exactly

⁴ Case C-170/13, *Huawei Technologies Co. Ltd v ZTE Corp., ZTE Deutschland GmbH*.

⁵ European standard organizations mainly include the European Committee for Standardisation (CEN), the European Committee for Electrotechnical Standardisation (CENELEC), and the European Telecommunications Standards Institute (ETSI).

⁶ Kirti Gupta and Chris Borges, 'Standard Essential Patents and European Economic Security', CSIS, <https://www.csis.org/analysis/standard-essential-patents-and-european-economic-security>, accessed 7 May 2023.

⁷ Bonadio, E., Tanwar A (n 1).

⁸ Luke Maunder, Arty Rajendra, Ryan West and Robyn Trigg, 'The EU's draft standard essential patents regulation: what you need to know', Osborne Clarke, <https://www.osborneclarke.com/insights/eus-draft-standard-essential-patents-regulation-what-you-need-know>, accessed 7 May 2024.

⁹ Zevgolis, N.E. (2018). The Interaction Between Intellectual Property Law and Competition Law in the EU: Necessity of Convergent Interpretation with the Principles Established by the Relevant Case Law. In: Bharadwaj, A., Devaiah, V., Gupta, I. (eds) *Multi-dimensional Approaches Towards New Technology*. Springer, Singapore. https://doi.org/10.1007/978-981-13-1232-8_2.

¹⁰ Article 102 of Consolidated version of the Treaty on the Functioning of the European Union, "Any abuse by one or more undertakings of a dominant position within the internal market or in a substantial part of it shall be prohibited as incompatible with the internal market in so far as it may affect trade between Member States".

constitutes FRAND terms, in particular what “reasonable” means for royalties?¹¹ The regulation of standard essential patents needs to be improved.

Standard essential patents can be considered both technical and legal notions, and while SEPs are related to the importance of implementing technical standards, their regulation and management mainly falls within the scope of the EU legal and regulatory framework. However, it can be seen from the above that there are no specific legal rules for SEP at present, so the legal concept of SEPs in the context of the EU needs to be clarified. On 27 April 2023, the European Commission (EC) presented a proposal¹² to reform the standard essential Patents process within the EU. The inclusion of a 'legal' definition in the proposal highlights the importance of providing clarity and guidance on SEPs within the EU legal framework. The legal definition aims to establish clear criteria for identifying SEPs and defining the obligations of patent holders, contributing to the effective management and enforcement of SEPs within the EU. The proposal contains the following building blocks: Establishment of a ‘Competence Centre’ at European Union Intellectual Property Office (EUIPO) to administer the elements such as registry, essentiality checks, FRAND determination, Small and Medium-sized Enterprises (SME) support services and SEP aggregate royalty rate etc. The European Commission's proposal COM(2023)232 on SEP aims to promote Fair and Reasonable Grants FRAND by increasing the transparency of the SEP process and improving the negotiation mechanism. However, some SEP rights holders have criticized the proposal, particularly from companies such as Nokia of Finland and Ericsson of Sweden. They are concerned that the proposal, which aims to set a price cap in the form of total royalties, which can be used to put downward pressure on licensing fees for SEP, could undermine incentives for European companies that lead global technology standards to invest in continuous standards innovation¹³. Although it remains to be considered whether the proposal will eventually become law, it provides an idea to improve the FRAND system, which is expected to promote fair, reasonable, and effective management of SEP authorization. The intersection of patent rights for SEPs¹⁴ and violations of Article 102 TFEU highlights the importance of upholding fundamental rights while promoting innovation and competition in the EU market. Going forward, it is crucial to seek a balance and consensus between the protection of intellectual property rights¹⁵ and the prevention of anti-competitive practices within the EU legal framework to achieve the continuous development and improvement of the SEP authorization system.

¹¹ ‘The EU Court of Justice Judgment in Huawei v ZTE – important confirmation of practical steps to be taken by Standard Essential Patent holders before seeking injunctions’, Norton Rose Fulbright, <https://www.nortonrosefulbright.com/en/knowledge/publications/8f90efbd/the-eu-court-of-justice-judgment-in-huawei-v-zte---important-confirmation-of-practical-steps-to-be-taken-by-standard-essential-patent-holders-before-seeking-injunctions>.

¹² COM(2023)232 - Proposal for a regulation of the European Parliament and of the Council on standard essential patents and amending Regulation (EU) 2017/1001.

¹³ Kirti Gupta and Chris Borges (n 6).

¹⁴ This include: the right to exclude others from making, using, selling, or importing the patented invention without a license; the right to receive reasonable royalties from implementers;

¹⁵ SEPs are a specific type of patent right that falls under the umbrella of intellectual property rights.

1.2 Purpose and research questions

This thesis aims to describe and analyse the intersection of patent rights for SEPs and article 102 TFEU, and compare this intersection with the relevant provisions in the proposed EU SEP Regulation COM(2023)232. In order to achieve the purpose, three research questions will be discussed:

1. What is the intersection of patent rights for SEPs and article 102 TFEU?
2. How does the proposed EU SEP Regulation intend to regulate the exercise of patent rights for SEPs?
3. What are the main similarities and differences between the current situation and proposed regulation?

1.3 Delimitations

This thesis does not discuss the conditions or process of the undertaking obtaining the standard essential patent, but discusses the problem of the undertaking who is already an SEP owner abusing the dominant position in the process of licensing the patent with the third party, and the conditions when SEP owners failing to fulfil the FRAND terms in the negotiations.

In order to focus on the interaction between the exercise of patent rights for SEPs and abuse of dominant positions in the context of standardization, and the impact of the relationship between the two on the legal assessment of the provisions in the proposal, this thesis will focus on remedies from the perspective of patent law and competition law.

1.4 Method and materials

This thesis will apply traditional legal doctrine research methods and EU legal methods in order to answer the research questions. The jurisprudential approach involves a systematic analysis of present legal norms, principles and case law¹⁶ to examine the legal implications at the intersection of patent rights for SEPs and competition law, in particular Article 102 of the Treaty on the Functioning of the European Union. This approach contributes to an in-depth understanding of the legal problem at hand, through a brief introduction and review of relevant EU legislation, case law and legal doctrine. The main content of this thesis is to describe and analyze the interaction of standard essential patents and competition law, and to analyze the impact of this interaction on the legal evaluation of the related provisions in Commission's proposal, and to bring different points of view into perspective and to provide justification for the author's opinion.

¹⁶ Smits, Jan M., What is Legal Doctrine? On the Aims and Methods of Legal-Dogmatic Research (September 1, 2015). Rob van Gestel, Hans-W. Micklitz & Edward L. Rubin (eds.), *Rethinking Legal Scholarship: A Transatlantic Dialogue*, New York [Cambridge University Press] 2017, pp. 207-228, Maastricht European Private Law Institute Working Paper No. 2015/06, Available at SSRN: <https://ssrn.com/abstract=2644088> or <http://dx.doi.org/10.2139/ssrn.2644088>.

The types of sources in this thesis include Primary EU Law: the Treaty on the Functioning of the European Union; and Secondary EU Law such as European Commission proposed SEP regulation (COM(2023)232), and decisions relevant to SEP licensing and competition law. However, as the proposed European Commission regulation on standard essential patents is in the active legislative phase as of May 2024, and the proposal is still subject to negotiation and ratification by the EU member states, potentially significant changes to the draft regulation are possible and the exact timing is not yet known¹⁷. If the proposal ultimately succeeds in becoming law, it will be a binding legislative act, directly and uniformly applicable in all EU Member States, and it will take precedence over national laws; Case Law Refers to judgments and opinions of the CJEU interpreting EU competition law, particularly Article 102 TFEU, such as *Huawei v. ZTE*; Soft law such as European Commission's guidelines and communication; Literature that comprises scholarly articles, books, and commentaries discussing the legal aspects of SEP rights, competition law, and proposed regulatory reforms within the EU.

1.5 Outline

This thesis aims to explore the intricate relationship between patent rights for SEPs and competition law, in particular Article 102 TFEU, in the context of the EU and the implications of this relationship for the legal evaluation of the related provisions in the EU Commission's proposal. The thesis is divided into 5 main chapters. The introduction sets the stage for the analysis by introducing the meaning of SEPs and its intersection with competition law. Chapter 2 provides an in-depth study of the SEP licensing phenomenon under EU law, examining the current competition law framework and relevant jurisprudence, including landmark CJEU cases *Huawei v. ZTE*. The third chapter mainly discusses the terms of the interaction between protection of patent rights for SEPs and abuse of dominant position conduct in the COM(2023)232, proposed by the European Commission. It outlines the key elements of the proposal and the purpose for which the proposal was developed. Chapter 4, by comparing the existing legal norms of this interaction and the relevant normative provisions of the proposal, the similarities and differences between the two provide reference for the future solutions. Finally, the conclusions synthesize the key findings of the analysis, reflecting the importance of the intersection of patent rights for SEPs and competition law, as well as solutions for finding a balance and consensus between intellectual property rights and competition law within the future EU legal framework.

¹⁷ Carolina pina, 'SEP Regulation: the draft regulation concerning the licensing of standard essential patents takes a significant step towards becoming law', garrigues, https://www.garrigues.com/en_GB/new/sep-regulation-draft-regulation-concerning-licensing-standard-essential-patents-takes, accessed 21 May 2024.

2 SEPs and competition law in the EU

2.1 General concepts of standard essential patent

2.1.1 Definition of SEPs

As mentioned in the introduction chapter, standard essential patent is the product of the integration of technical standards and patents. In order to further study the concept of standard essential patent, we should first clarify these two basic concepts. Patents are meant to protect inventions, as Article 52 of European Patent Convention says *“European patents shall be granted for any inventions, in all fields of technology, provided that they are new, involve an inventive step and are susceptible of industrial application”*. In a highly technical industry, such as the ICT and IoT industry, the commercial viability of various technical products depends on their interoperability across various platforms. In order to enable such interoperability, common standards are developed through the process to ‘Standardisation’¹⁸. It can be seen that standardization is a voluntary process, in which many stakeholders in a certain field pursue common technical standards based on scientific and technical practices for the common benefit. Such technological standards are termed as ‘Standard Essential Patent’ when they are given patent protection, for which there are no non-infringing alternatives¹⁹. With the development of technology in the Internet era, the number of integrated patents in technical standards has increased dramatically. Nowadays, any technical standard may be covered by patents. When combining the market specification characteristics of technical standards with exclusive patents, standard essential patents with strong market competitiveness are born.

Although there is no uniform definition of standard essential patent in the world at present, some representative standard setting organizations have given the definition of standard essential patent. Standards are defined by a number of international organizations. The ISO/IEC Guide 2:2004 Standardization and related activities – General vocabulary²⁰, states that *‘a document, developed by consensus and approved by an accreditation body, which provides common and repeated use of rules, guidelines or characteristics for an activity or its results, with the aim of achieving the best possible order in a given situation’*. Standards are categorized into legal and factual standards. A legal standard is one that has been developed by a standard-setting organization (SSO); a de facto standard is a technology that has become a standard because it is widely used in the marketplace. It may or may not

¹⁸ Kapur, Ravin, ‘Standard Essential Patents and Their Competition Law Regulation - Discovering the Law’, in the *Realm of Inventions* (December 20, 2015), Available at SSRN: <https://ssrn.com/abstract=2719130> or <http://dx.doi.org/10.2139/ssrn.2719130>.

¹⁹ *ibid.*

²⁰ ISO/IEC Guide 2:2004 provides general terms and definitions concerning standardization and related activities. It is intended to contribute fundamentally towards mutual understanding amongst the members of ISO and IEC and the various governmental and non-governmental agencies involved in standardization at international, regional and national levels.

have been adopted by SSO²¹. The International Electrotechnical Commission (IEC), International Organization for Standardization (ISO) and International Telecommunication Union (ITU) published a document²² specifies that '*essential patents are those required to implement a particular recommended standard or technical solution*'. Within the EU, The European Committee for Standardisation (CEN) and the European Committee for Electrotechnical Standardisation (CENELEC) published a document, the Guide 8 provides the following formal definition:

*"Essential Patent(s)" means those patents that are unavoidable - i.e. there are no non-infringing alternatives for implementing the normative clauses of a standard when developing a product or service based on that standard.*²³

In general, a standard essential patent is a patent that protects a technology declared essential to the implementation of a technical standard adopted by a standard setting organization .

2.1.2 Characteristic of SEPs

2.1.2.1 Essentiality

Standard Essential Patents protect the technology required for products and services to conform to an industry technical standard. These patents are essential to ensure that products comply with mandatory or optional standards. SEPs play a huge role in the marketplace, especially for producers who need to rely on standard technologies. Understanding SEPs is critical to navigating the world of technology standards and ensuring that different technologies can interact effectively. In short, SEPs are critical for ensuring that products and services are standards compliant and for marketing products based on those standards. Another important question is how to determine whether a patent is necessary or not. Bekkers and Updegrave (2012) identify 13 different features of SDO essentiality definitions that varied considerably over the ten SSOs they studied.²⁴ In order to ensure that the patents included in a patent pool are essential to the standard in question, most such pools are subject to rigorous analysis. However, it is important to note that SSOs or SDOs do not usually investigate whether patents declared as standard essential patents are truly essential. Patents are declared essential by their owners themselves. In many cases, this analysis is done by independent experts²⁵.

²¹Standard Essential Patents&Their Significance,TTConsultants, <https://ttconsultants.com/standard-essential-patents-their-significance>.

²² The Guidelines for Implementation of the Common Patent Policy for ITU-T/ITU-R/ISO/IEC. https://www.iso.org/files/live/sites/isoorg/files/developing_standards/resources/docs/20221216_Guidelines_for_Implementation_of_the_Common_Patent_Policy.pdf.

²³ Guide 8 CEN-CENELEC Guideline for Implementation for the Common Policy on Patents (and other statutory intellectual property rights based on inventions) edition 2, 2019-5. <https://www.cenelec.eu/media/Guides/CEN-CLC/cenclcguid8.pdf>.

²⁴Jorge L. Contreras,ed., Essentiality and Standards-Essential Patents-Cambridge Handbook of Technical Standardization Law - Antitrust, Competition and Patent Law , Cambridge Univ. Press 2017, forthcoming.

²⁵ *ibid*.

2.1.2.2 Non-substitutability

Non-substitutability is the major difference between standard-essential patents and ordinary patents. SEPs protect technology that is necessary or unavoidable for the realization of a particular technical standard. There are no patent-neutral alternatives, nor is there the ability to “work around” patented technology while complying with the standard. In practice, the non-substitutability of SEPs results from a combination of the technical fundamentals set out in the standard specification and commercial factors such as sunk costs and switching costs²⁶. Technical non-substitutability means that there are no viable technical alternatives or methods to “design around” the patented technology and still meet the technical requirements and specifications of the standard. In other words, SEPs are technically essential and unavoidable for the implementation of the standard. Commercially non-substitutability means that even though some technological alternatives may theoretically exist, commercial considerations such as sunk costs, switching costs, network effects, etc. will effectively lock an industry into using SEPs once the standard containing the patent has been widely adopted. Both of these can lead to a lack of non-infringing alternatives to SEPs after the standard is developed, giving SEP holders significant market power²⁷.

2.1.3 Significance of SEPs

On the one hand, the significance of standard essential patents is reflected in their positive impact on the market and the economy. Standard essential patents can solve the problem of compatibility and interoperability of different commodities, and ensure that networks, systems, and devices of different manufacturers can exchange and process information; secondly, the network effect of technical standards makes it possible for standards, once accepted by the market, to realize both reduction of production costs and expansion of scale, and to attract related enterprises in the market to produce similar products, thus increasing competition in the industry; and lastly, the sizable expected income of patents incorporated into standards makes more enterprises invest their capital in the process of technological research and development, thus stimulating technological innovation. Finally, the considerable income expected from the inclusion of patents in the standard will make more enterprises invest in the process of technology research and development, thus stimulating technological innovation.

On the other hand, the significance of standard essential patents is also reflected in their negative impact. According to the essentiality and non-substitutability of standard essential patents mentioned above, the owner of standard essential patents is naturally in a relatively advantageous position in patent license negotiation. If the SEP owner abuses its advantageous position to charge unreasonable license fee to the standard implementer or blackmail the potential implementer to agree to the unfair licensing conditions by refusing to license, it will seriously damage the interests of the licensee, affect the production and sales of the downstream market, and hinder the development of fair competition in the market, ultimately,

²⁶ Zhang Guolin, ‘Study on EU Standard Essential Patents’ (Master thesis, Southwest University of Political Science and Law, 2018)

²⁷ *ibid.*

jeopardizing the public interest. It can be seen that once a patent is declared as Standard Essential Patent, it faces no competition from other patents until that patent becomes obsolete due to new inventions. Therefore, the Patent holder is a monopolist in its domain, holding absolute power. As power corrupts and absolute power corrupts absolutely²⁸. In order to prevent the SEMs owners from taking advantage of the superior position, for example, asking unreasonable “stacking” of patent licensing royalties, SDOs usually require their members to comply with the FRAND principle when licensing their Standard Essential Patents to other parties.

2.2 Interaction of SEP owner patent rights and abuse of dominant position

2.2.1 Patent rights for SEPs

Standard Essential Patents have the attributes of private rights. Patent is a kind of private right that prohibits others from implementing a specific patented technology for the purpose of profit, and The Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPS) affirms the protection of the privatization of intellectual property rights in its “Preamble”. In terms of legal form, private rights are the legal form of private ownership of property. The behaviors targeted by patents are directly related to property interests, and the control of technology implementation behaviors is to pursue the property interests brought by the implementation behaviors. It can be seen that, unlike other non-proprietary technologies incorporated into standards, Standard Essential Patents are also patents, with the attribute of private rights derived from the examination and approval of authorization by state organs²⁹.

The patent owner has the exclusive right to use the patented invention and license to others, According to Article 28 of TRIPS,

“A patent shall confer on its owner the following exclusive rights:

(b) where the subject matter of a patent is a process, to prevent third parties not having the owner’s consent from the act of using the process, and from the acts of: using, offering for sale, selling, or importing for these purposes at least the product obtained directly by that process.

2. Patent owners shall also have the right to assign, or transfer by succession, the patent and to conclude licensing contracts.”³⁰

The inventor obtains a legal monopoly through a patent and has the option of using the patented technology on his own, granting a patent license to others, or using a combination of the two to recoup his investment³¹.

²⁸ Ravin, Kapur (n 18).

²⁹ Xiao Yangao, Zou Ya, Tang Miao, ‘Research on Dilemma and Optimizing Mechanism of Royalties for Standard-essential Patents’, Bulletin of Chinese Academy of Sciences, 33/3(2018), p256-264.

³⁰ World Trade Organization, Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPS) (1994) https://www.wto.org/english/docs_e/legal_e/27-trips.pdf, accessed 8 May 2024.

³¹ Kesan, Jay P. and Hayes, Carol M. (2014) “FRAND’s Forever: Standards, Patent Transfers, and Licensing Commitments,” Indiana Law Journal: Vol.89: Iss.1, Article10. Available at: <https://www.repository.law.indiana.edu/ilj/vol89/iss1/10>.

When a technology becomes a standard essential patent, it belongs to the protection scope of patent law and has the characteristics of general patent rights. For example, SEP holders have the right to grant licenses to other companies or individuals to use their patents, which is usually done through licensing agreements or contracts to agree on licensing conditions and licensing fees. In addition, the pursuit of infringement, that is, the filing of infringement suits against companies that use SEPs without authorization, This includes the right to seek injunctive relief and damages for patent infringement.

2.2.2 FRAND terms

Although a standard essential patent belongs to the category of patent, due to its essentiality and non-substitutability, if it, like other general patentees, excludes the right of others to use its patent, the implementer will not be able to obtain the standard. Therefore, the participants in the standardisation process, who hold SEPs, are generally required to declare that they are willing to license their patents on FRAND terms³². FRAND terms are mainly used by SSOs to regulate patent licensing behavior of patentees. Most SSOs require their members to make patent licensing commitments before standard setting. If the patent they hold becomes an essential technology for implementing a standard, they should license their standard essential patents under FRAND terms. FRAND only sets up a relationship between the SEP owner and the SSOs, which stems from the natural conflict between the patent and the technical standard. Thus, FRAND does not and cannot represent a commitment to reach an agreement with a specific end result, since the SEP owner commits to a SSO, not to particular licensees who might not even be known at the time the commitment is given³³.

The standard essential patent owner has the ability to control the whole industry by using the market dominant position generated by the promotion of standardization, so it has a natural advantage in the negotiation with the implementers. For example, patent hold-up, royalty stacking and other issues. Patent Hold-up is one of the serious problems faced by the ICT industry. Patent holdup can arise when circumstances enable a patent owner to extract a larger royalty ex post than it could have obtained in an arms length transaction ex ante³⁴. The other is the superposition of patent royalties. A product may require multiple standard essential patent licenses, and the cumulative patent license royalty "stack" together will be too expensive³⁵. FRAND licenses are primarily intended to prevent those issues.

According to the Guidelines on the applicability of Article 101 of the Treaty on the Functioning of the European Union to horizontal cooperation agreements, The standards organization must ensure that the standards can be implemented under FRAND conditions,

³² Petrovic, U., "Competition Law and Standard Essential Patents: A Transatlantic Perspective", (Alphen aan den Rijn : Kluwer law international, 2014), p 28.

³³ Larouche, P., & Zingales, N. (2014). Injunctive Relief in Disputes Related to Standard-Essential Patents: Time for the CJEU to Set Fair and Reasonable Presumptions. *European Competition Journal*, 10(3), 551–596. <https://doi.org/10.5235/17441056.10.3.551>, accessed 13 May 2024.

³⁴ Cotter, Thomas F. and Hovenkamp, Erik and Siebrasse, Norman, 'Demystifying Patent Holdup' (February 15, 2019). 76 *Washington & Lee Law Review* 1501 (2019), Available at SSRN: <https://ssrn.com/abstract=3338026>.

³⁵ Ravin, Kapur (n 18),p 5.

“In order to ensure effective access to the standard, the 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 ”³⁶

Moreover, this commitment shall be made before the adoption of the standard, and the validity of the commitment shall not become invalid with the assignment of the patent right.

Because licensing and negotiation involve confidentiality, FRAND terms lack transparency and predictability. Patent licensing terms are opaque and implementers have little information about SEP licensing royalties, creating a significant barrier for implementers with little or no expertise or resources to assess whether license offers from SEP owners fulfill indeed FRAND terms. The information asymmetry between the two sides leads to the lack of a reference standard for the patent license royalties proposed by the patentee by the implementer, which may lead to the SMEs being unable to incorporate the license cost into their business model. For SEP owners, this also means that it may be difficult for licensors to predict and collect royalty³⁷. At the same time, there is no common accepted method for calculating FRAND royalty rates, leading to significant divergences in outcomes depending on the approach used³⁸. Also, the specific meaning of the FRAND condition may not be clear and thus may be controversial. This ambiguity can lead to long legal disputes between SEP owners and implementer, as the parties may have different understandings of what "reasonable" and "fair" conditions are.

2.2.3 Exercise for SEPs as abuse of dominant position

Article 102 of TFEU prohibits abusive conduct by companies that have a dominant position on a particular market. Holding a dominant position on any given market is not in itself illegal. However, a dominant undertaking has a special responsibility to ensure that its conduct does not distort competition. SEP owners may use the substantial market power of their standard essential patents to distort competition by refusing to license SEP enforcers, imposing licensing conditions, or seeking court injunctions.

2.2.3.1 Definition of dominant position

In the case of SEPs, the SEP owner is usually assumed to have a dominant position, each SEP constitutes a relevant market alone, the patent is essential for the implementation of technical standards that comply with those within the relevant market, and there is no alternative technology. Although the definition of

³⁶ Commission, Communication from the Commission — Guidelines on the applicability of Article 101 of the Treaty on the Functioning of the European Union to horizontal co-operation agreements, OJ 2011/C 11/01, 14 January 2011, para. 284-285.

³⁷Joerg Witting, Pauline Kuipers, ‘FRAND issues under consultation from different policy perspectives’, Bird&Bird, <https://www.twobirds.com/en/insights/2022/global/frand-issues-under-consultation-from-different-policy-perspectives>, accessed 13 May 2024.

³⁸Ménière Y. Fair, ‘Reasonable and Non-Discriminatory (FRAND) Licensing Terms’, Research Analysis of a Controversial Concept. EUR 27333. Luxembourg (Luxembourg): Publications Office of the European Union; 2015. JRC96258.

dominance is not mentioned in the treaty, In the United Brands case³⁹, the CJEU defined dominance as “a position of economic strength” that allows an enterprise to operate independently from its competitors and consumers. in the Hoffmann-La Roche case⁴⁰, the CJEU expanded this definition to include “an appreciable influence on the conditions under which that competition will develop.” This appreciable influence can be considered an indicator of substantial market power, which is largely synonymous with a dominant position⁴¹.

Although SEP owners generate the assumption of dominance because of their dominant position in the market for their technology. However, this assumption is somewhat challenged and whether SEP holders have a dominant market position should be fully investigated in the light of other factors. For example, the National Development and Reform Commission (NDRC) of China evaluates not only the SEP holder's complete market share in the relevant market but also the holder's ability to control the patent licensing market for relevant standards. This includes factors such as the ability to set patent license fees and conditions, the reliance of terminal equipment manufacturers on the SEP holder's portfolio, the difficulty for other businesses to enter the market, and other relevant considerations⁴².

It can be seen that market domination must be evaluated according to the specific situation. However, in the case of ICT and IoT industries, since there is no alternative standard, standard suppliers usually represent their own relevant market and have a dominant position.

2.2.3.2 Seeking injunction

According to article 8(2) of the TRIPS agreement, appropriate measures may be needed to prevent the abuse of IPRs by rights holders. In the EU, remedies for IPR infringement have been partially harmonized through Enforcement Directives⁴³. The directive sets minimum standards in accordance with TRIPS, Article 11 of the Directive mandates that Member States ensure judicial authorities can issue injunctions against IPR infringers to prevent further infringement. The ability to seek an injunction is essential to granting patentees exclusive rights, as it protects their incentive to innovate and deters potential infringers. However, from a competition law perspective, SEP owners may abuse their dominant position by seeking injunctive or exclusion orders against potential licensees willing to negotiate licenses on FRAND terms⁴⁴. Disputes in patent licensing negotiations usually arise in the Huawei ZTE case⁴⁵ when the parties are unable to reach an

³⁹Case 27/76, United Brands v Commission, Judgment of the Court of 14 February 1978, ECLI:EU:C:1978:22, para 65.

⁴⁰ Case 85/76, Hoffmann-La Roche & Co. AG v Commission, Judgment of the Court of 13 February 1979, ECLI:EU:C:1979:36, para 39.

⁴¹ Gunel Zalova, 'Sustainability Dimension in the application of Article 102 TFEU: A Lack of Will or 'Wonderland'?' (Master Thesis, Lund University, 2023)

⁴² Ma Butian, Peng Liu, 'China: SEPs and FRAND – litigation, policy and latest developments', GCR, <https://globalcompetitionreview.com/hub/sepfrand-hub/2023/article/china-seps-and-frand-litigation-policy-and-latest-developments>, accessed 13 May 2024.

⁴³ Directive 2004/48 of the European Parliament and of the Council of 29 April 2004 on the enforcement of intellectual property rights [2004] OJ L 157.

⁴⁴ Iva Svobodova, 'Seeking injunctions in SEPs infringement proceedings as an abuse of dominant position under Article 102 TFEU' (Master Thesis, Lund university, 2015)

⁴⁵Case C-170/13 Huawei Technologies Co. Ltd v. ZTE Corp. and ZTE Deutschland GmbH [2015] EU:C:2015:477.

agreement on what is "fair" and "reasonable" in accordance with FRAND requirements. In such cases, the SEP holder will often file a lawsuit against the implementer or seek an injunction to prohibit the implementer from continuing to use its SEP, which may be an abuse of a dominant position.

2.2.3.3 Refusing to license

SEP owners must offer FRAND terms to implementers after they express willingness to conclude a licensing agreement. Failure to do so or imposing unreasonable terms could be seen as an abuse of dominant position. A patent right has the right to exclude others from commercial use of the patented technology. Refusing to license a patented technology may exclude the market to competitors, so it may raise competition law concerns in specific circumstances, specifically under Article 102 (b) TFEU⁴⁶. The CJEU established an exceptional circumstances test. Through the cases of Bronner⁴⁷, Magill⁴⁸, IMS Health⁴⁹, and Microsoft⁵⁰, CJEU holds that refusal to license IPR when these four cumulative conditions⁵¹ are met amounts to abuse of a dominant position. As with the refusal to license "ordinary" patents, under Article 102 (b) TFEU, a refusal to license an SEP under exceptional circumstances can constitute an abuse of a dominant position because such a refusal allows the SEP owner to exclude the SEP implementation from the standard product market⁵². Considering that the exceptional circumstances doctrine was developed in cases where Intellectual Property Right(IPR) owners never expressed their intention to grant licenses to others, liability under competition law is even more likely to arise within the context of SEPs voluntarily committed by their owners to be licensed under FRAND terms⁵³.

2.2.3.4 Excessive royalty

Article 102 TFEU explicitly prohibits dominant undertakings from '*Directly or indirectly imposing unfair purchase or selling prices or other unfair trading conditions.*' Excessive royalties charged by a SEP owner can be considered an abuse of a dominant position. According to the Guidelines on the applicability of Article 101 of the Treaty on the Functioning of the European Union to horizontal cooperation agreements⁵⁴, in case of disputes, whether the Intellectual Property(IP) license royalty is fair and reasonable in the process of establishing evaluation

⁴⁶ which prohibits abuses of dominant position by means of conduct "limiting production, markets or technical development to the prejudice of consumers".

⁴⁷ Case C-7/97 Oscar Bronner GmbH & Co. KG v Mediaprint Zeitungs- und Zeitschriftenverlag GmbH & Co. KG and others, EU:C:1998:569.

⁴⁸ Joined Cases C-241/91 P and C-242/91 P Radio Telefis Eireann (RTE) and Independent Television Publications Ltd (ITP) v Commission ('Magill'), EU:C:1995:98.

⁴⁹ Case C-418/01 IMS Health GmbH & Co. OHG v NDC Health GmbH & Co. KG, EU:C:2004:257.

⁵⁰ COMP/C-3/37.792 Commission v. Microsoft, 24.03.2004.

⁵¹ (1)the refusal to license denies a third party access to a product or service which is 'indispensable' for carrying out a particular business on a secondary market,;(2) the refusal prevents the appearance of a 'new product' for which there is potential consumer demand,;(3) the refusal is such as to 'likely eliminate any competition on the 'secondary market';(4) the refusal is incapable of being 'objectively justified.

⁵² Iva (n 44) p 23.

⁵³ Petrovcic (n 32) p 105.

⁵⁴ Commission, Guidelines on the applicability of Article 101 of the Treaty on the Functioning of the European Union to horizontal cooperation agreements,OJ 2011/C 1/01, 14.1.2011.

standards should be judged based on whether the relationship between the license royalty and the economic value of the IP is reasonable. The Commission did not interfere specifically with FRAND licensing royalties in the Samsung⁵⁵ and Motorola⁵⁶ case, arguing that courts and arbitration bodies are better placed to determine FRAND rates in contested cases. However, pure excessive license royalty may not be considered an abuse of dominance. The Commission, in its investigation of Qualcomm⁵⁷, demonstrated the difficulty of finding purely ultra-FRAND royalty pricing behavior as an abuse of dominance⁵⁸. The reality is more often that SEP owners threaten potential implementers to agree to their excessive license royalties by seeking injunctions, behavior that, because of its anti competitive attributes, is thus an abuse of a dominant market position. Excessive royalty increases costs for manufacturers, which are passed on to consumers. Moreover, excessive royalty will increase the entry cost of manufacturers and lead to unfair competition.

2.3 Current legal framework

The EU currently has no law on SEPs, the intersection between standard essential patents and abuse of dominant positions within the EU is governed by Article 102 of the TFEU. There are also related soft laws⁵⁹ like commission's guidelines and communication. The European Court of Justice (ECJ) has provided guidance on this issue through its Huawei⁶⁰ judgment, which establishes a framework for assessing whether applying for an injunction against suspected infringers constitutes an abuse of dominant position.

2.3.1 Article 102 of TFEU

Article 102 of TFEU prohibits the abuse of a dominant position by undertakings, which enumerates four types of abuses, including: unfair conditions of trade; restriction of products, markets or technological development to the detriment of consumers; discriminatory business practices; and tying and attaching other unreasonable trading conditions. This article is crucial in addressing the issue of SEP holders who may be in a dominant position due to the natural attributes of their patents (essentiality and non-substitutability) and may abuse that position.

2.3.2 Commission's Guideline and Communication

In 2011, the European Commission published a Guidelines on the applicability of Article 101 of the Treaty on the Functioning of the European Union to horizontal cooperation agreements⁶¹ (horizontal Guidelines), the Guidelines set out principles

⁵⁵ Samsung (Case AT.39939) Commission Decision [2014] OJ C 350/8.

⁵⁶ Motorola (Case AT.39985) Commission Decision [2014] OJ C 344/6.

⁵⁷ Case COMP/39.247, Texas Instruments/Qualcomm.

⁵⁸Thomas Vinje, 'Standard-essential patents in European Union', Clifford Chance, <https://www.lexology.com/library/detail.aspx?g=88b4c9d2-67cc-432a-be27-d35ca85f765d>, accessed 15 May 2024.

⁵⁹ not legally binding but important in practice for guidance and interpretation.

⁶⁰ Case C-170/13 Huawei Technologies Co. Ltd v. ZTE Corp. and ZTE Deutschland GmbH.

⁶¹ Commission, Guidelines on the applicability of Article 101 of the Treaty on the Functioning of the European Union to horizontal cooperation agreements OJ 2011/C 1/01, 14.1.2011.

for the assessment of horizontal cooperation agreements and concerted practices under Article 101 of TFEU and provide an analytical framework to facilitate the self-assessment of the most common types of horizontal cooperation agreements⁶². Chapter 7 deals with specific issues of intellectual property rights, the licensing of standard-essential patents and the involvement of public authorities in standard-setting⁶³. The European Commission revised guidance in 2023, the existing chapter 7, is split into two chapters – one on standardization agreements and one on standard terms. It Provides more detailed guidance to ensure the fairness and rationality of FRAND commitments in licensing, and adds a proposal for dispute resolution mechanisms to prevent abuse of litigation rights. Although the horizontal Guidelines do not directly regulate the abuse of dominance by SEP holders, they emphasize the importance of FRAND commitments for obtaining standard essential patents as well as the regulation of anti-competitive conduct of SEP holders in the negotiation of granting license agreements. In the subsequent Huawei case, the CJEU also referred to the holder's FRAND commitment to the standard-setting organization, which creates a licensing expectation on the part of the implementer and may constitute an abuse of dominance if the holder fails to comply with the FRAND commitment to grant a license. In sum, while the horizontal Guidelines do not directly address the issue of abuse of dominance, they do recognize the competition concerns that may arise from standardization involving SEPs and the need for FRAND licensing commitments to mitigate these concerns.

In 2017, the Commission published Communication ‘Setting out the EU approach to Standard Essential Patents’⁶⁴, addressing the interplay between patents and standards, particularly focusing on SEPs. The main thrust of the document revolves around the need for a structured approach to SEPs to ensure FRAND licensing practices. The document emphasizes the importance of accurate and up-to-date patent declarations, the establishment of independent parties to conduct essentiality checks and ensure FRAND terms in licensing negotiations, and the establishment of alternative dispute resolution (ADR) mechanisms to promote innovation and prevent disputes in the technology sector. Stakeholders were encouraged to participate in sectoral discussions.

2.3.3 CJEU Huawei v ZTE ruling

Huawei owns an SEP covering 4G “Long Term Evolution” (LTE). Huawei, as a member of the European Telecommunications Standards Institute (ETSI), notified the ETSI of the patent and undertook to grant licenses to third parties on FRAND terms. ZTE sold telecom products in Germany that incorporated Huawei's SEP, and as a result, Huawei argued that ZTE had infringed on its SEP. ZTE claimed that Huawei abused its dominant position by seeking an injunction from the court, as

⁶² Commission, Guidelines on the applicability of Article 101 of the Treaty on the Functioning of the European Union to horizontal cooperation agreements OJ 2023/C 259/01, 21.7.2023.

⁶³Kate McKenna, ‘Horizontal Co-operation Agreements Subject to Revised EU Guidance’, Matheson, <https://www.matheson.com/insights/detail/horizontal-co-operation-agreements-subject-to-revised-eu-guidance>, accessed 13 May 2024.

⁶⁴ Commission, COMMUNICATION FROM THE COMMISSION TO THE EUROPEAN PARLIAMENT, THE COUNCIL AND THE EUROPEAN ECONOMIC AND SOCIAL COMMITTEE Setting out the EU approach to Standard Essential Patents, COM/2017/0712, 29 Nov 2017.

ZTE was willing to negotiate a license agreement⁶⁵. And the result of the court is that the action of a SEP owner who promises a SSO that it will grant a patent license to a third party under FRAND terms, in applying to the court for an injunction, will not be considered to be an abuse of its dominant position, Provided that: 1. Prior to bringing that action, the proprietor has, first, alerted the alleged infringer of the infringement complained about by designating that patent patent and specifying the way in which it has been infringed⁶⁶;2. After the alleged infringer agrees to conclude a licensing agreement on FRAND terms, the SEP proprietor must present a written offer for the same⁶⁷.In addition, the alleged infringer must honestly and promptly respond in good faith to the owner's offer and must not resort to delaying tactics. At the same time, the CJEU noted that, unlike prior case law's exceptional circumstances for a patentee's refusal to license constituting an abuse of dominance, the SEP owner's commitment of FRAND terms to a SSO gives potential implementers a reasonable expectation of obtaining a license, and if the SEP owner refuses to grant such licenses, this may constitute an abuse of dominance⁶⁸.

The case sets out the circumstances under which an SEP injunction seeking and enforcing FRAND guarantees against infringers will be considered a violation of Article 102 of TFEU, providing clarity on how SEP owners can make an application for an injunction without violating competition law⁶⁹. For example, the SEP owner must provide the implementer with a written license offer that includes the royalty amount and how it is calculated. Also, the implementer must also fulfill the duty of good faith. It is of great significance for the court to decide the related cases in which SEP interacts with competition law. The subject of the CJEU's judgment in Huawei was the question of whether and in which circumstances the SEP injunction sought against the alleged infringer constituted an abuse of a dominant position. The CJEU had to balance the preservation of free competition - in particular the prohibition of abuse of dominance - with the protection of patent rights of SEP owners and their right to effective judicial protection.

There are a couple of issues. First, what exactly constitutes FRAND terms, in particular what “reasonable” means for royalties?⁷⁰ Secondly, the CJEU bases the SEP owner's licensing obligations on Article 102 of the TFEU and the FRAND commitments. This leaves room for the following question: does the Huawei v. ZTE decision also apply to cases where the SEP owner is not bound by FRAND commitments?⁷¹

⁶⁵ Bonadio, E., Tanwar (n 1).

⁶⁶ Case C-170/13, Huawei Technologies Co. Ltd v ZTE Corp. and ZTE Deutschland GmbH , Judgment of the Court (Fifth Chamber) of 16 July 2015, ECLI:EU:C:2015:477, para 77.

⁶⁷ Bonadio, E., Tanwar, A (n 1) p603.

⁶⁸ CJEU judgment in Huawei v ZTE, para 51-54.

⁶⁹ Norton Rose Fulbright , The EU Court of Justice Judgment in Huawei v ZTE – important confirmation of practical steps to be taken by Standard Essential Patent holders before seeking injunctions, <https://www.nortonrosefulbright.com/en/knowledge/publications/8f90efbd/the-eu-court-of-justice-judgment-in-huawei-v-zte---important-confirmation-of-practical-steps-to-be-taken-by-standard-essential-patent-holders-before-seeking-injunctions#section1>. accessed 13 May 2024.

⁷⁰ *ibid*.

⁷¹ Zevgolis, N.E. (n 9).

3 Proposed regulation of SEPs by EU Commission (COM(2023)232)

3.1 Introduction

Currently there are no EU or national specific rules for SEPs in the EU other than the Commission horizontal guidelines or the CJEU judgment in Huawei. Moreover, as the CJEU recognized in Huawei v. ZTE, the grant of a European patent remains governed by the national law of each contracting state that grants it, in addition to the common rules governing the grant of European patents⁷². Enforcement and negotiation of patents, including SEPs, is now also regulated by national courts⁷³. The non-harmonized interpretation of FRAND conditions by national courts has led to the unpredictability of SEP in the EU. And, due to the lack of transparency of SEPs, companies implementing the standards remain at a disadvantage in negotiations. On this basis, the European Commission expressed concerns about SEP licensing in its intellectual property action plan of 2020⁷⁴ and established the SEPs Expert Group in 2021 to create an EU SEP framework; It issued a 27 April 2023 proposal as the first step in the process of EU legislation on SEPs. After the publication of the proposal, the Commission sought comments from Stakeholders. Following this, on February 28, 2024, the European Parliament and its members adopted their position on the draft standard essential patent regulation⁷⁵.

The main objectives of the proposal are to regulate the enforcement and licensing of SEPs in the EU and to set benchmarks for SEP transparency by establishing a balanced licensing system⁷⁶, to harmonize the internal market so that SMEs have easy access to these essential technologies at a reasonable price, and to stimulate the participation of EU companies in the development of standardized patents and innovation in standardized technologies. While the proposal does not directly interpret the CJEU case law or the methodology for specifically determining FRAND conditions, it improves the Court's efficiency in dealing with SEP disputes

⁷² Commission, Proposal for a REGULATION OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL on standard essential patents and amending Regulation (EU)2017/1001, p 4.

⁷³ Michele Giunta , 'New EU Legislation Proposals (Part I): A First Look at the Draft SEP Regulation' , HOFFMANNEITL, https://hoffmanneitle.com/news/newsletter/2023/2023_q3_newsletter.pdf#page=2, accessed 14 May 2024.

⁷⁴ Commission, COMMUNICATION FROM THE COMMISSION TO THE EUROPEAN PARLIAMENT, THE COUNCIL, THE EUROPEAN ECONOMIC AND SOCIAL COMMITTEE AND THE COMMITTEE OF THE REGIONS-Making the most of the EU's innovative potential -An intellectual property action plan to support the EU's recovery and resilience, COM/2020/760, 25.11.2020.

⁷⁵ Corin Gittinger, 'European Parliament moves SEP regulation forward', Fresh Fields Bruckhaus Deringer, <https://technologyquotient.freshfields.com/post/102j1db/european-parliament-moves-sep-regulation-forward>, accessed 14 May 2024.

⁷⁶ Osborne Clarke (n 8).

by increasing transparency, increasing legal certainty, and reducing inconsistent rulings.⁷⁷

3.2 Main aspects of the proposal

3.2.1 SEP register, database and essentiality check

The EUIPO will Establish a mandatory register system in which SEP owners record their SEP, providing information on relevant standards, registered SEP marks, basic technical specifications, FRAND licensing commitments, contact details of SEP owners, etc.⁷⁸ If SEP holders do not register with EUIPO, they cannot enforce SEP within the EU or collect royalties from potential implementers⁷⁹, nor can they bring an action in court or apply for an injunction.

The competence center will create and maintain an electronic SEP database that will disclose to third parties patent bibliographic data, public standards provisions, known product information, necessity information, non-confidential FRAND determinations, aggregate royalty information, expert opinions, and mediator reports⁸⁰.

Selected standard essential patents will be subject to a non-binding necessity check. First, the EUIPO will select a sample of registered SEPs from different patent families for necessity checking each year, but SEPs for SMEs will be excluded. In addition, SEP holders and implementers may voluntarily propose necessity checks for up to 100 registered SEPs per year for specific criteria. The necessity checks will be conducted by independent assessors. The competence center may review the results of the inspection at the request of a stakeholder or at its own discretion. If the results are revoked, a new assessor will be appointed to re-conduct the inspection. Parties that are not satisfied with the competence center's conclusions can appeal the Boards of Appeal of the EUIPO within two months. Through this series of measures, the aim is to ensure the transparency and fairness of the SEP licensing process, while at the same time providing a clear avenue of inspection and appeal for all parties concerned⁸¹.

3.2.2 FRAND determination

According to Article 34 of the proposal, the FRAND determination process is an important process for SEPs in which parties may choose to participate and commit to the outcome in order to facilitate an agreement or to provide a ruling that ensures that the licensing terms are fair, reasonable and non-discriminatory. If one party fails to respond or commit, the other party may request termination or continuation of the adjudication without facing litigation. The commencement of such a proceeding should not jeopardize the protection of the rights of the parties and,

⁷⁷ Proposal, p 5.

⁷⁸ *ibid*, Art. 4.

⁷⁹ *ibid*, Art. 24 and 56(4).

⁸⁰ *ibid*, Art. 5.

⁸¹ *ibid*, Art 29.

while awaiting the determination, if one party fails to comply with the determination, the other party may commence a court proceeding. In addition, during the FRAND adjudication process, a party may apply for an interim injunction of an economic nature in order to provide the necessary judicial protection, in particular if the SEP holder has made a FRAND commitment.

This provides for mandatory steps before resolving patent infringement disputes and seeking court evaluation of FRAND provisions⁸². The SEP holder and the implementer must first try to agree on royalties within a FRAND determination period not exceeding nine months⁸³, which should be concluded by issuing a “notice of termination” stating whether FRAND has been determined and whether the parties have committed themselves to complying with the decision before resorting to litigation⁸⁴ ⁸⁵. In summary, the FRAND determination process is intended to provide a structured and fair mechanism for resolving SEP disputes and to ensure that SEP licensing terms are fair, reasonable and non-discriminatory.

3.2.3 SEP aggregate royalty rate

SEP holders are required to notify the competence center of the expected maximum total royalties. Under Articles 15 and 16, holders are required to notify the competence center of the expected maximum royalties after the publication of the standard or its modification, and the Competence Center is required to make the database storing this information publicly available for consultation by stakeholders.

Article 17(1) provides for the possibility for SEP holders who own at least 20% of all SEPs for that standard to request the competence center to appoint a conciliator to mediate joint submission discussions on aggregated royalties.

Under Article 18, both SEP holders and implementers may request the conciliators to recommend non-binding global aggregate royalties.

3.3 For and against

As can be seen from the above, the proposal stimulates technological innovation by creating a more transparent negotiating pathway within the SEP process to level the playing field within the EU market. It proposes that the EUIPO, which currently only administers EU trademark and design rights, be made responsible for a range of SEP-related matters.⁸⁶ The proposal has received tremendous attention, including support from many SMEs, as it is a move that will increase the information that SMEs can refer to in negotiating licensing authorizations with the SEP holder, such as the holder of a standard patent on the technology required for

⁸² *ibid*,art 34(1)(a).

⁸³ *ibid*, Art 37.

⁸⁴ Michele Giunta,(n 73).

⁸⁵ *ibid*, Art 56.

⁸⁶Evan Brow, ‘Standard Essential Patent Reform in the EU: January 2024 Update’, CSIC, <https://www.csic.org/blogs/strategic-technologies-blog/standard-essential-patent-reform-eu-january-2024-update>, accessed 16 May 2024.

the product that they potentially produce and the maximum total royalty on that standard patent, which can effectively increase their predictability of production costs. At the same time, a FRAND decision as a mandatory precondition for suing or seeking an injunction can largely eliminate the situation where SMEs are forced to enter into a license agreement on unfavorable terms due to an injunction by a SEP holder that threatens to keep their products off the market⁸⁷. However, the proposal has also been criticized by major SEP holders in the EU. Companies such as Finland's Nokia, Sweden's Ericsson and the US's Qualcomm have expressed the view that the proposal is too “radical” and could stifle innovation in the EU⁸⁸. It imposes restrictions on SEP holders, such as registration requirements, payment of royalties to EUIPO and a delay of at least one year before being able to go to court, while not imposing any specific restrictions on implementers, which makes it very difficult for holders to obtain a financial return on their royalties⁸⁹, as claimed, for example, by Finland⁹⁰, that Nokia owns around 50% of essential patents in Europe, and that a third of Nokia's funding for R&D comes from FRAND royalties. This would not only undermine its incentive to continue investing its license fees in research into newer technologies, but would also make it difficult for some of the companies that currently rely on royalties as their main source of income to survive.

⁸⁷European Commission, ‘Q&A on Standard Essential Patents’, 27 April 2023, https://ec.europa.eu/commission/presscorner/detail/en/QANDA_23_2457.

⁸⁸ Evan Brown, (n 81).

⁸⁹ Michele Giunta (n 73).

⁹⁰ Finnish Parliament, ‘Grand Committee: Efforts should be made to correct the problems of the proposals regarding essential patents’, 24/11/2023, https://secure.ipex.eu/IPEXL-WEB/parliaments/news_parliaments/8a8629a88bffb649018c01ae6f020004.

4 Similarities and differences between the current situation and the proposal

4.1 Similarities

4.1.1 Emphasize the transparency of SEP licensing

Both the extant CJEU case law and the EU's proposal intend to make SEP negotiations within the EU fairer and more efficient by increasing transparency in the SEP process and balancing the interests of SEP holders and implementers. This is conducive to facilitating the conclusion of licensing agreements, in particular to address the difficulties of SMEs in the licensing authorization process, and this transparency in turn can greatly simplify dispute resolution and reduce the lengthy and costly litigation that has consumed the innovation ecosystem⁹¹. The proposed regulation emphasizes the need to promote and enhance transparency across the SEP ecosystem through the establishment of a competence center under the jurisdiction of the EUIPO. Such a center will establish and maintain a database of registered SEPs.⁹² SEP holders are obliged to register their patents and notify the competence center of their expected maximum royalty rates and SEP-related information, and the database established by the competence center will be made available to the public, which will effectively increase the transparency of SEP information and increase the predictability for implementers of the sep of the standard they potentially implement.

According to paragraph 60-02 of the Court's judgement in Huawei case⁹³, SEP holders are obliged to register their patents and to notify the competence center of the expected maximum royalty rate and SEP-related information, and the database set up by the competence center will be made available to the stakeholders, which is a form of effective increase in the transparency of the information on SEPs and increase in the predictability of SEPs for implementers of the standards that they potentially implement. As the Advocate General has observed in point 81 of his Opinion⁹⁴, because of the large number of SEPs that make up a standard, infringers may not always recognize that they are using an SEP that relates to that standard.⁹⁵ The notice requires transparency by ensuring that implementers are aware of which of the SEPs in their own acts of implementing the standard are problematic and the

⁹¹ John Mulgrew, 'Weekly take: Why transparency and certainty are crucial for SEP licensing', *Managing IP*, <https://www.managingip.com/article/2cytcdunglznfgymw0x6o/patents/weekly-take-why-transparency-and-certainty-are-crucial-for-sep-licensing>, accessed 17 May 2024.

⁹² Enrico B., and Dyuti P., 'A short summary of the recent leaked EU regulation proposal on standard essential patents', *Wolters Kluwer*, <https://patentblog.kluweriplaw.com/2023/04/05/a-short-summary-of-the-recently-leaked-eu-regulation-proposal-on-standard-essential-patents/>, accessed 17 May 2024.

⁹³ Case C-170/13, *Huawei Technologies Co. Ltd v ZTE Corp. and ZTE Deutschland GmbH*.

⁹⁴Case C-170/13, *Huawei Technologies Co. Ltd v ZTE Corp. and ZTE Deutschland GmbH*[2014] ECLI:EU:C:2014:2391, Opinion of Advocate General Wathelet.

⁹⁵ CJEU judgment in *Huawei v ZTE*, para 62.

reasons why they are suspected of infringing. The notice also requires that the infringer be informed of the reasons for the alleged infringement of the standard. After an infringer has expressed its intention to do so, the SEP right holder should specify the tax to be paid and explain how the tax will be calculated.⁹⁶ This enhances the ability of implementers to assess whether an offer initiated by a holder complies with the FRAND provisions, ensuring that it is transparent and non-discriminatory.

4.1.2 Procedural safeguards of FRAND Terms

Both the CJEU's judgement in Huawei and the EU proposed regulation's procedural requirements for entering into SEP licensing agreements are designed to ensure that SEP holders and implementers negotiate in good faith, to provide a clear and predictable procedural framework for SEP licensing, and to ensure that licensing terms are fair, reasonable, and non-discriminatory.

The EU proposal creates a mandatory pre-procedure before seeking a court injunction or filing a lawsuit, i.e., it requires the parties to engage in FRAND determination, which provides an opportunity for the parties to potentially accomplish FRAND determination by entering into a settlement or through reasonable advice provided by a mediator, and can enable both SEP holders and implementers to benefit from negotiating the FRAND license and help the SEP Holder and Implementer to reach one on the FRAND license. A FRAND determination of less than or equal to nine months is required before a SEP owner or implementer can file suit, which provides a safe harbor for negotiations because there is no threat of litigation or delaying tactics during that time⁹⁷.

The ECJ decision in Huawei v ZTE sets a procedural framework for balancing the interests of SEP holders seeking injunctive relief and alleged infringers⁹⁸. It clarified that a SEP holder must meet certain procedural requirements to avoid violating Article 102 of TFEU by seeking an injunction in a SEP infringement action, in other words, the CJEU provided procedural safeguards for the holder to comply with the FRAND commitments made to the SDOs during the negotiation of the license agreement. The holder is required to notify the infringer and make a written offer to the infringer with a specific license royalty and how it will be calculated, and the infringer must be “diligent” in responding and providing any counteroffers “in a timely manner.”⁹⁹

⁹⁶ *ibid*, Art 63.

⁹⁷ European Commission-Internal Market, Industry, Entrepreneurship and SMEs, 'Standard Essential Patents', https://single-market-economy.ec.europa.eu/industry/strategy/intellectual-property/patent-protection-eu/standard-essential-patents_en.

⁹⁸ Rainer K Kuhnen, 'Huawei v ZTE – ECJ sets framework for injunctive relief regarding SEPs', I AM, <https://www.iam-media.com/article/huawei-v-zte-ecj-sets-framework-injunctive-relief-regarding-seps>, accessed 17 May 2024.

⁹⁹ CJEU judgment in Huawei v ZTE, para 77.

4.1.3 The aim is to find a balance between the interests of SEP holders and implementers.

The Huawei negotiating framework established by the CJEU establishes a FRAND procedure for holders in the negotiation of license agreements with implementers, i.e., the exercise of remedies for the protection of intellectual property rights is considered abusive only in exceptional circumstances. In this context, the procedure aims to ensure a balance between the different interests of the SEP holders and the implementer, i.e. between the fundamental right to seek IPRs of the SEP holder and its fundamental right to seek judicial remedies and competition law.¹⁰⁰ The decision clarifies that seeking injunctive relief does not necessarily constitute an abuse of a dominant position under Article 102 of TFEU, contrary to the Commission's decisions in Samsung and Motorola, which, to some extent, reflects the honest effort made to establish a fair balance between patent law and competition law is demonstrated by the CJEU in the Huawei v ZTE case¹⁰¹.

The proposed SEP Regulation by the European Commission highlights the important impact of the SEP framework on SMEs and start-ups and recognizes their active role in the field of innovation. These firms often generate and implement innovations that bring significant value to consumers, and the standard provides them with the opportunity to compete with larger firms in an open innovation market. At the same time, protects the right of SEP holders to seek injunctions after a FRAND determination process.¹⁰² The proposal aims to restore balance to the SEP licensing environment. This will provide visibility and positive validation of SEP holders' SEP portfolios, which is particularly beneficial for SEP holders with strong portfolios. On the other hand, all stakeholders will benefit from a credible source of information that will provide potential implementers with better information about their upcoming standard patents to facilitate their investment strategies.

4.2 Differences

4.2.1 Proposal focuses more on the protection of implementers

The most controversial aspect of the proposal is that it over protects the rights of implementers and places an asymmetric burden on SEP holders and implementers. This may make it difficult for holders to obtain royalties in license agreement negotiations, depress SEP holders' incentives to invest the obtained royalty funds in new technology research and development, and especially put great economic

¹⁰⁰ Giuseppe Colangelo, 'FRAND Determinations Under the EU SEP Proposal: Discarding the Huawei Framework', International Center for Law & Economics, <https://laweconcenter.org/resources/frand-determinations-under-the-eu-sep-proposal-discarding-the-huawei-framework/>, accessed 17 May 2024.

¹⁰¹ Sean-Paul Brankin, Salomé Cignal de Ugarte, Lisa Kimmel, 'Huawei/ZTE: Towards a More Demanding Standard of Abuse in Essential Patent Cases', *Journal of European Competition Law & Practice*, Volume 7, Issue 8, 15 August 2016, Pages 520–524.

¹⁰² Sean-Paul Brankin, Salomé Cignal de Ugarte, Lisa Kimmel, 'Huawei/ZTE: Towards a More Demanding Standard of Abuse in Essential Patent Cases', *Journal of European Competition Law & Practice*, Volume 7, Issue 8, 15 August 2016, Pages 520–524.

<https://doi.org/10.1093/jecclap/lpw042>.

¹⁰² Enrico B., and Dyuti P (n 92).

pressure on some established SEP holding companies that currently use royalties as a source of funds to support the company's technological innovation.

4.2.1.1 FRAND determination

The proposal's provision on the FRAND determination procedure has been the subject of much concern. It provides that during the nine-month period of the FRAND determination process, SEP right holders may not bring an action for SEP infringement against the relevant implementer¹⁰³, and that this restriction may be waived only if the responding party waives its participation in the determination¹⁰⁴. However, implementers may often intentionally extend the entire nine-month period to avoid being held liable, as a measure of their interests. As stated in the opinion of Qualcomm¹⁰⁵, a US company, during the nine-month delay period, the patentee is unable to claim infringement liability or apply for a behavioral injunction in respect of the infringing acts sued, which is essentially the same as creating a nine-month-long compulsory license, failing to effectively consider the issues of substantial loss of value of the patent right, and inherently infringing on the litigation rights of the patentee and violating the fundamental principles of the protection system of the patent law.

In the CJEU's Huawei case, only in exceptional circumstances could the exercise of remedies to protect IPRs be considered unlawful for the purposes of competition law and subordinate any limitation of the injunction to proof of the licensee's willingness to sign a FRAND deal¹⁰⁶. Instead, under the proposal, injunctive relief would be unavailable by default and patent holders would be restricted from filing infringement suits until a FRAND determination is initiated, regardless of the willingness of the implementer. At the same time, the implementer would still be free to request a determination of invalidity, as well as a declaration of non-essentiality. As can be seen, the proposal focuses on protecting the rights of the implementer in FRAND negotiations, although the holder may issue a temporary injunction of a financial nature against the alleged infringer¹⁰⁷. However, this right of “injunction” would preclude the confiscation of the alleged infringer's property, including the seizure or delivery of products suspected of infringing the SEP¹⁰⁸. This is seen as seriously undermining the SEP holder's right of access to justice (i.e. the right to an effective remedy and a fair trial) under Article 47 of the Charter of Fundamental Rights of the European Union¹⁰⁹, greatly limiting the patentee's access to justice.

¹⁰³ Proposal, Article 34. 1. (a).

¹⁰⁴ Proposal, Article 38. 3. (b).

¹⁰⁵ Feedback from: Qualcomm Incorporated, https://ec.europa.eu/info/law/better-regulation/have-your-say/initiatives/13109-Intellectual-property-new-framework-for-standard-essentialpatents/F3434463_en.

¹⁰⁶ Giuseppe Colangelo (n 100).

¹⁰⁷ Proposal, Art 34(4).

¹⁰⁸ Giuseppe Colangelo (n 100).

¹⁰⁹ Rory O'Neill, 'Breaking: UPC chief urges EU to rethink SEP plan', Managing IP, <https://www.managingip.com/article/2bqbfr0uyrki1fnjy9ou8/breaking-upc-chief-urges-eu-to-rethink-sep-plan>, accessed 15 May 2024.

4.2.1.2 Aggregate royalty

Another protective provision that reflects a bias in favor of implementers is the provision related to the aggregate royalty. The proposal focuses on the use of an Aggregate Royalty Burden (ARB) as a means of determining FRAND royalty rates. The ARB is the total royalty payable on the use of all SEPs associated with a particular standard. Under the proposal, SEP holders and implementers can request a non-binding expert opinion to determine the global aggregate royalty burden¹¹⁰. Stakeholders can request to be involved in this process and the expert opinion will be published¹¹¹. The global royalty mechanism helps protect the interests of implementers by increasing transparency, reducing disputes and litigation, providing a fair basis for negotiation, and supporting SMEs and start-ups. However, the provision has also raised objections, with the European Parliament's Committee on International Trade arguing that the mechanism may raise competition law concerns. This non-binding opinion may indirectly influence market behavior and pricing strategies, and be perceived as a form of price-fixing, thus affecting market competition¹¹².

4.2.2 Ex ante essentiality check

SEP essentiality check is a prerequisite for the resolution of SEP disputes, however, in fact, due to the fact that SDOs does not carry out essentiality check of SEP holders' declarations, there are both “under-disclosure” and “over-disclosure” of declared SEPs. As far as the subject of SEP essentiality check is concerned, there are two broad approaches: firstly, prior essentiality check of SEP, in which the essentiality of SEP is specially assessed by a specific organization and the essentiality check is conducted prior to litigation; and secondly, ex post facto essentiality check of SEP, in which the essentiality check of SEP is specially assessed by the court and other dispute resolution bodies in the course of the dispute resolution procedure.

The CJEU established in Huawei that an implementer may challenge the validity and essentiality of an SEP¹¹³, it is evident that the CJEU's decision in Huawei v. ZTE did not provide for an independent essentiality checking body, and the essentiality and validity of the SEP was mainly resolved through the adversarial process of the litigation. This means that the SEP review in Huawei was ex post facto, occurring after the SEP holder sought an injunction and was challenged by the implementer. The proposal establishes a new framework for the essentiality check of SEPs by proposing the establishment of a Competence Center at the EUIPO, which would be responsible for essentiality check, and which would establish a mandatory registration system for SEPs, selecting a selection of SEPs to carry out an annual essentiality check¹¹⁴. Each year, the Competence Center will select samples of registered SEPs from the different patent families of each SEP

¹¹⁰ Luke Maunder, Arty Rajendra, Ryan West and Robyn Trigg (n 8).

¹¹¹ Proposal, Art 15-18.

¹¹² DRAFT OPINION of the Committee on International Trade for the Committee on Legal Affairs on the Proposal for a Regulation of the European Parliament and of the Council on Standard essential patents and amending Regulation ,EU 2017/1001 (COM(2023)0232 – C9-0147/2023 – 2023\0133(COD).

¹¹³ CJEU judgment in Huawei v ZTE, para 66-67.

¹¹⁴ Proposal, Article 29.

holder (excluding SMEs) and appoint an evaluator to carry out an essentiality check for a specific criterion according to a methodology that has not yet been specified. The results of the checks would not be legally binding, but could be submitted to stakeholders, patent pools, public authorities, courts or arbitrators (e.g., in the EUIPO FRAND determination process, as described below)¹¹⁵. This essentiality evaluation by the EUIPO is intended to happen before licensing negotiations, as the proposal requires SEP registration as a pre-condition for enforcement actions¹¹⁶.

4.2.3 Competence center at EUIPO

The proposal proposes the establishment of a "Competence Centre" at EUIPO responsible for registration and database management, essentiality checks, aggregate royalty determination, FRAND determination and SME support services. In the past, the examination and granting of European patents has been undertaken by the European Patent Office (EPO), while the EUIPO has focused on the registration and administration of European Union Trademarks and Registered Community Designs. While the EUIPO focuses on the registration and administration of European Union Trademarks and Registered Community Designs, EUIPO now lacks the experience required for SEPs. At the same time, EUIPO needs to address the issue of how to build the required team of professionals to undertake the examination and evaluation work and ensure its impartiality. In addition, EUIPO will need a significant financial investment to support its work. Therefore, the proposal involves relevant issues that require in-depth consideration.

¹¹⁵ Luke Maunder, Arty Rajendra, Ryan West and Robyn Trigg (n 8)

¹¹⁶Stephan Waldheim, 'The Draft EU SEP Regulation – A Practitioner's Critical View', Bird&Bird, <https://www.twobirds.com/en/insights/2023/global/the-draft-eu-sep-regulation-a-practitioners-critical-view>, accessed 18 May 2024.

5 Conclusion

As expressed in the discussion in this thesis, standard essential patents play an increasingly important role in today's society, which is related to the rapid development of the ICT and IoT industries. Standard essential patents are subject to both IP and competition law. Balancing the interaction between patent rights for SEP and Article 102 of TFEU is the key to constructing a framework for the standard essential patent system.

Chapter 2 of this thesis discusses in depth the intersection of the patent rights of SEPs and the Article 102 of TFEU, reflecting the advantageous position that the patent rights of SEP holders enable through the description of basic concepts such as the nature and importance of SEPs. As a result of its dominant position, it emerges that the SDOs or SSOs require its license authorization to a third party when complying with FRAND terms. The exercise of SEP patent rights may abuse the dominant position in the market. This includes seeking court injunctions, refusal to license, and excessive licensing royalties, etc. Therefore, these actions should be subject to legal constraints, which currently, within the EU, mainly include Article 102 TFEU and the CJEU's case law in the Huawei case.

The European Commission issued a proposal for SEP regulation on April 27, 2023, a proposal that aims to build a legal framework related to SEPs and to propose specialized laws for SEP challenges within the EU. The main elements of the proposal include the establishment of a SEP registry, database and essentiality check; the establishment of a FRAND determination procedure and a SEP aggregate royalty, and the establishment of a competence center under EUIPO to regulate the above. The proposal has received both support and criticism, and is still in the process of being adopted, with further confirmation as to whether it will be adopted and how it will be improved.

In order to better balance the interests of IPRs and competition law, SEP holders and implementers, chapter 4 of this paper provides a comparative analysis of the existing legal frameworks and the proposed provisions, with reference to the similarities between the two, including the emphasis on the transparency of the SEP negotiation process, procedural safeguards for FRAND terms, and the convergence of the objectives of the two. Meanwhile, the differences between the two are also analyzed, pointing out some new provisions of the proposal, including the addition of FRAND determination as a mandatory pre-procedure and the setting of a maximum aggregate royalty; the addition of ex-ante precautionary measures for SEP essentiality check; and the establishment of competence centers at the EUIPO to regulate, etc.;

Many of the provisions of the proposal have been criticized as potentially inconsistent with the purpose of the proposal. First, the available evidence used by

the Commission in the preparation of this Regulation does not suggest that there is a market failure in the SEP licensing market¹¹⁷. The incidence of SEP litigation is low and has been declining for many years. There is nothing to suggest that current SEP license conditions systematically inhibit or delay standards implementation¹¹⁸, the proposed SEP regulations may be unnecessary and disproportionate. Second, the proposed SEP regulation would make SEP licensing more complex and could change the incentives for innovation in an open standardization environment. It unevenly distributed all benefits to implementers and costs to SEP owners, further increasing the cost of licensing¹¹⁹, which may create an unequal status between SEP holders and implementers, contrary to the proposal's goal of balancing the two at the outset.

By examining and answering three questions, the thesis delves into the complexities of SEP and competition law and the ultimate goal of pursuing the realization of a balance between intellectual property and competition law. By highlighting the main similarities and differences between the current situation and the proposed regulation, it provides a roadmap for the future resolution of issues related to SEP protection and abuse of dominance. The thesis also emphasizes the importance of creating a harmonious environment in the EU that preserves fair competition while safeguarding innovation and technological progress.

¹¹⁷ Robin Jacob & Igor Nikolic, 'Comments regarding the draft EU regulation on standard essential patents', International center for law&economics, <https://laweconcenter.org/resources/comments-regarding-the-draft-eu-regulation-on-standard-essential-patents/>, accessed 22 May 2024.

¹¹⁸ Justus Baron, Pere Arque-Castells, Amandine Leonard, Tim Pohlmann, & Eric Sergheraert, Empirical Assessment of Potential Challenges in SEP Licensing, Study for the European Commission (2023), <https://www.iplytics.com/wp-content/uploads/2023/04/Empirical-Assessment-of-Potential-Challenges-in-SEP-Licensing.pdf>, accessed 22 May 2024.

¹¹⁹ Robin Jacob & Igor Nikolic (n 117).

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