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The High-Stakes SEP Clash: Patent Leverage, Forum Shopping, and Brazil's Courts

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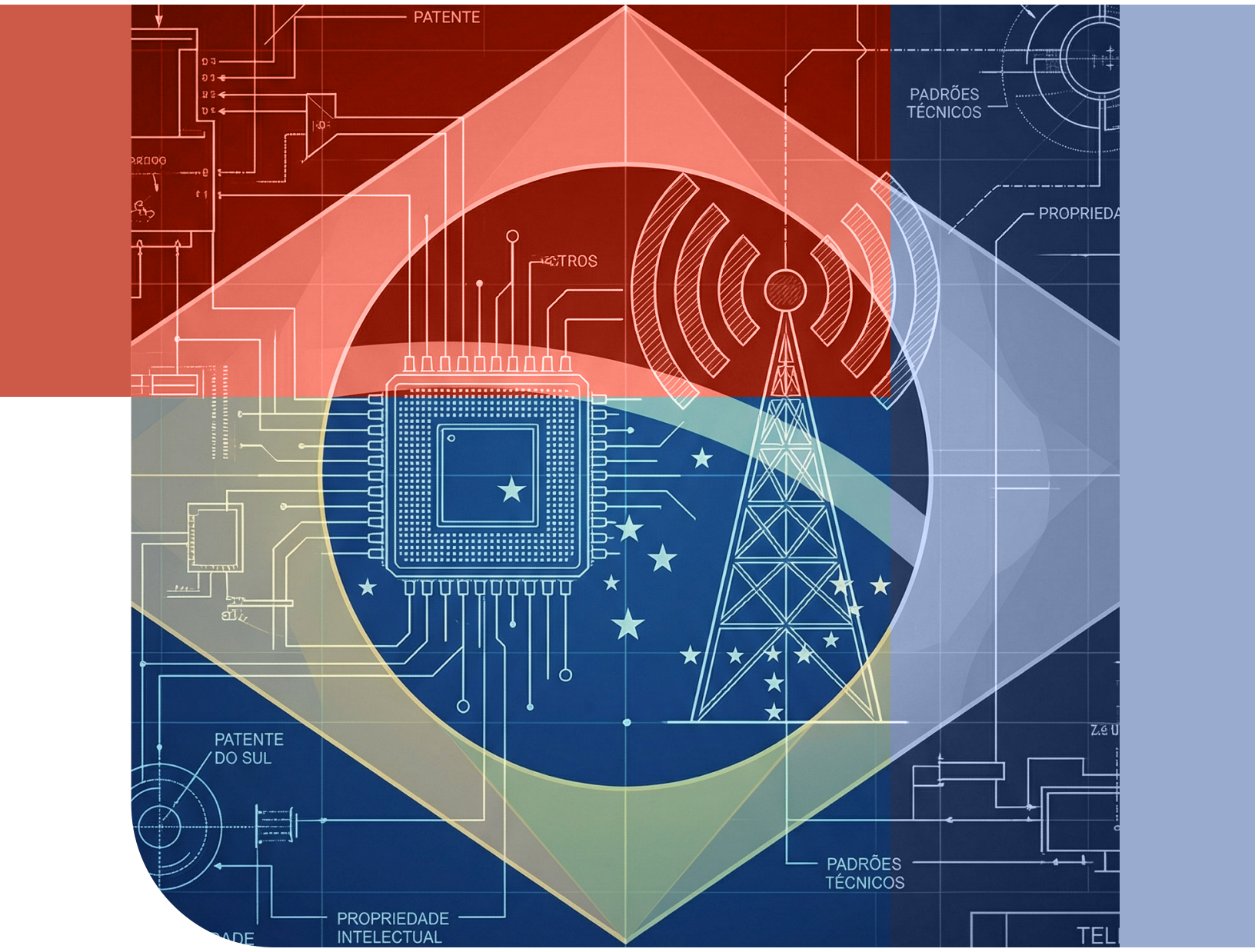

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Introduction

Standard Essential Patents (SEPs) hold a unique place in the innovation ecosystem. Unlike other patents, they are indispensable for the adoption of technical standards, which in turn enable interoperability across technologies and drive innovation through collaboration among market participants. This strategic role means that owning SEPs involves not only the exclusive rights typical of intellectual property but also additional responsibilities–most notably, the obligation to license under FRAND terms (fair, reasonable, and non-discriminatory).

Globally, the tension between the exclusivity granted by SEPs and the obligation to license on FRAND terms has been the subject of extensive academic, regulatory, and judicial debate, with no clear consensus. Yet competition authorities and courts in Europe, Asia, and the United States have been shaping analytical frameworks and guidelines to balance incentives for innovation with the preservation of competition–particularly in response to the strategic use of injunctions as a tool to pressure negotiations.

Brazil, however, has taken a different path. It is among the few jurisdictions that routinely grant preliminary–and even ex parte–injunctions in SEP disputes, meaning without hearing the opposing party. This practice has negatively set Brazilian courts apart in the global context, as it overlooks critical factors that should be weighed first: the existence of irreparable harm, the adequacy of monetary remedies, the proportionality between the harm to the patent holder and the impact on the implementer, and whether the injunction serves the public interest. By allowing injunctions to be used as leverage, the Brazilian judiciary reinforces artificial barriers to competition and unduly strengthens the bargaining power of SEP holders–at the expense of technology diffusion and market stability.

This White Paper seeks to contribute to the debate by examining, from a competition-law perspective, the risks created by the absence of clear guidelines on SEPs in Brazil. Drawing on international experience and the approaches adopted by antitrust authorities and courts abroad, it highlights the urgent need to establish parameters for judicial measures in SEP disputes. While there is no global consensus on the exact contours of these guidelines, there is growing recognition that SEP disputes require differentiated treatment. Empirical evidence further suggests that focusing on the economic realities of FRAND licensing is more effective than narrowing the analysis to the parties' negotiating behavior.

The goal, therefore, is to propose pathways that can strengthen legal certainty in Brazil, prevent anticompetitive abuses tied to the exercise of intellectual property rights, and create a regulatory environment that balances innovation with competition.

1. Standard Essential Patents Require Tailored Guidelines within the Framework of Intellectual Property Rights

The starting point for analyzing how SEPs are handled in Brazil–and the potential competitive distortions arising from regulatory gaps–is to understand two essential elements: (i) the role of technical standards in shaping markets, and (ii) the specific nature of SEPs, which carry the obligation to license under FRAND conditions.

These two aspects explain why SEPs demand additional evaluation criteria beyond the traditional logic of intellectual property protection. This section therefore lays out the conceptual foundations that make SEPs distinctive and clarify their relationship with technical standards, providing the baseline for the competition-oriented analysis that follows.

1.1 The Role and Importance of Technical Standards

Technical standards can be understood as a set of collectively agreed specifications or requirements that guide the design, operation, and interoperability of products, processes, or services[1]. They are present in most consumer goods, information and communications technology (ICT) products, industrial equipment, transportation systems, and payment infrastructures, among others[2]. What makes them truly strategic, however, is that their role extends well beyond prescribing technical requirements. Standards create a shared foundation that enables coordination among multiple players. By defining characteristics that allow interoperability between products from different suppliers–often in ways that are invisible to end users–they reduce uncertainty, remove barriers, and lower transaction costs.[3]

> "Technical standards are complex and detailed documents that describe a collectively agreed technical solution, for example, the expected operation (and interoperation) of a cellular network and devices within that network necessary to enable interoperability and technical performance requirements. Technical standards are often subject to continuous development. For example, in the telecommunications space, technical standards have been developed through several generations from GSM (2G) to 5G, and now 6G is being planned for development. Technical standards are not to be confused with quality or safety standards, although technical standards are also used for quality and safety purposes. In the context of SEPs and essential intellectual property rights (IPRs), we refer to technical standards as ways to make devices work together seamlessly".[4]

[1] GOV.UK. Technical standards and standard development organisations. Londres: UK Government, 2024. Available at: https://www.gov.uk/guidance/technical-standards-and-standard-development-organisations#technical-standards-and-standardisation. Access: 23 aug. 2025.

[2] ÖZMEN, Gülfem. Standard essential patents and FRAND commitments: legal and economic perspectives. 2021. Master's Thesis (Mestrado em Direito e Economia) – LUT University, Lappeenranta, 2021. Available at: https://lutpub.lut.fi/bitstream/handle/10024/164186/Gülfem_Öz%20men_Thesis.pdf?sequence=1&isAllowed=y. Access: 23 aug. 2025

[3] GOV.UK. Technical standards and standard development organisations. Londres: UK Government, 2024. Available at: https://www.gov.uk/guidance/technical-standards-and-standard-development-organisations#technical-standards-and-standardisation. Access: 23 aug. 2025

[4] GOV.UK. Technical standards and standard development organisations. Londres: UK Government, 2024. Available at: https://www.gov.uk/guidance/technical-standards-and-standard-development-organisations#technical-standards-and-standardisation. Access: 23 aug. 2025

Standardization generates benefits across four dimensions. First, it enables interoperability between products from different manufacturers. Second, it promotes economies of scale and network effects, accelerating innovation and reducing production costs. Third, it expands consumer choice by allowing users to select products based on price, design, or additional features without sacrificing compatibility. Finally, it establishes quality and safety benchmarks that increase trust in emerging technologies[5] [6].

Standards also play a defining role in the dynamics of innovation and competition. While some strategic behavior may occur during standard-setting, empirical evidence shows that firms primarily engage in SSOs to reduce uncertainty, ensure interoperability, monitor technological trajectories, and coordinate with peers[7]. Once established, standards reshape the competitive environment by lowering switching costs and expanding the accessible market, which forces downstream firms to invest more heavily in differentiated features to compete for consumers. This larger, more contestable market produces substantial innovation spillovers: rather than stemming from R&D spending within the standard-setting process itself, they arise from the incentives created by interoperability to develop complementary and higher-value products. This dynamic aligns with theories of dominant design, as stabilization around a shared technical architecture provides predictability for long-term investment and channels capital toward complementary technologies and solutions[8].

Empirical studies confirm this view, showing that standardization directly supports economic growth by spreading technical knowledge and reducing coordination costs among market players. Standards also serve as a foundation for subsequent innovation, creating common platforms on which companies can build complementary solutions. Research in multiple countries estimates that standards and technical norms have contributed between 0.2% and

[5] CONFEDERAÇÃO NACIONAL DA INDÚSTRIA (CNI). 5G: oportunidades de negócios e impactos na indústria. Brasília: CNI, 2020. Available at: https://static.portaldaindustria.com.br/media/filer_public/a0/78/a0787a77-df85-41c6-888e-031ad420a699/id_237707_documento_5g.pdf. Access: 23 aug. 2025.

NESTA. The impact of standardization and standards on innovation. 2013. Available at: https://media.nesta.org.uk/documents/the_impact_of_standardization_and_standards_on_innovation.pdf. Access: 23 aug. 2025.

DEPARTMENT OF JUSTICE (DOJ). Policy statement on remedies for standards-essential patents subject to voluntary F/RAND commitments. Washington, D.C.: DOJ, 2019. Available at: https://www.justice.gov/atr/page/file/1228016/dl?inline=. Access: 23 aug. 2025.

[6] "Eles são cruciais para o desenvolvimento tecnológico, especialmente em setores de alta tecnologia, por permitirem que produtos e sistemas de diferentes fabricantes possam se comunicar e funcionar juntos de forma eficiente (interoperabilidade); reduzirem custos de produção; acelerarem a adoção de novas tecnologias; facilitarem a entrada de novas empresas que desenvolverão produtos em uma base tecnológica comum, em vez de tentarem desenvolver produtos com tecnologias próprias. [...] São eles que garantem a compatibilidade entre diferentes produtos fabricados por diferentes empresas, possibilitando o compartilhamento de arquivos entre diversos tipos de aparelhos. Além disso, possibilitam o acesso de novas tecnologias à sociedade, a redução de custos ao consumidor final e o estabelecimento de um patamar mínimo de qualidade e de segurança dos produtos." – CONSELHO ADMINISTRATIVO DE DEFESA ECONÔMICA (CADE). Contribuições do CADE sobre patentes essenciais. Brasília: CADE, 2020. Available at: https://cdn.cade.gov.br/Portal/centrais-de-conteudo/publicacoes/contribuicoes-do-cade/Contribuições-do-Cade-Patentes-Essenciais.pdf. Access: 23 aug. 2025.

[7] BLIND, Knut; LORENZ, Annika; RAUBER, Julius. Drivers for companies' entry into standard-setting organizations. IEEE Transactions on Engineering Management, v. 68, n. 1, p. 33-44, 2021. Disponível em: file:///mnt/data/Drivers_for_Companies_Entry_Into_Standard-Setting_Organizations.pdf. Acesso em: 24 nov. 2025.

[8] DE CONINCK, Roeland; LEUTENEGGER, Max; REITZIG, Markus. SEP Royalties, Investment Incentives, and Total Welfare. 2022. Disponível em: https://fair-standards.org/2023/04/25/sep-royalties-investment-incentives-and-total-welfare/. Acesso em: 24 nov. 2025.

1% of long-term GDP growth, driven by knowledge diffusion and productivity gains.[9] At the firm level, companies adopting standards reported annual revenue growth of 0.5% to 4%.[10]

In this sense, standards are not simply technical instruments – they constitute part of the core infrastructure of the modern economy, with their value stemming from the network effects and coordination benefits generated when multiple industries adopt the same specifications. By ensuring interoperability, standards expand market reach, reduce switching costs, and allow consumers to choose freely among brands and price points without losing compatibility. In this way, standardization shapes innovation incentives and influences competitive dynamics, not because any single standard embodies a high-stakes technological bet necessarily, but because broad adoption creates shared platforms that guide subsequent technological and market developments.

Understanding this impact requires a closer look at both the process by which standards are defined and the actors who drive their implementation. Standards are generally designed for global adoption, since their role is to guarantee compatibility among systems developed in different countries and by different manufacturers. For that reason, they are typically made publicly available–either free of charge or at cost-recovery levels–and their adoption is usually voluntary[11], except when incorporated into regulatory frameworks.[12]

[9] The role of standards in the diffusion of technical knowledge and their resulting contribution to economic growth has been demonstrated in various empirical studies. For the time period between 1961 and 1996 calculations showed that the information contained in standards and technical rules was responsible for 1% of Germany's gross national product (DIN 2000). This German study on the micro- and macroeconomic benefits of standardization was used as a model for several other national studies. It was followed by further analyses which not only used similar methodological approaches and covered similar time frames, but also led to comparable results. As a whole, all of the national studies demonstrate that standards have a positive influence on economic growth due to the resulting improved diffusion of knowledge. The contribution of standards to the growth rate in each country is equivalent to 0.9 % in Germany, 0.8 % in France and Australia, 0.3 % in the UK and 0.2 % in Canada."– NESTA. The impact of standardization and standards on innovation. 2013. Available at: https://media.nesta.org.uk/documents/the_impact_of_standardization_and_standards_on_innovation.pdf. Access: 23 aug. 2025.

[10] "Based on quite systematic approaches, two initiatives have to be mentioned.13 First, the ISO (2011, 2012) performed a series of studies in numerous companies operating in a variety of business sectors in ten countries. The studies are based on Porter's value chain. Overall the studies showed that implementing standards can provide economic benefits from between 0.5 % and 4 % of their annual sales revenues. However, the approach does not take explicitly the impact on innovation into account." – NESTA. The impact of standardization and standards on innovation. 2013. Available at: https://media.nesta.org.uk/documents/the_impact_of_standardization_and_standards_on_innovation.pdf. Access: 23 aug. 2025.

[11] There is a body of literature that distinguishes among three types of standards: (i) mandatory standards, defined by government regulators in areas such as health, safety, or the environment; (ii) voluntary standards, developed by standard-setting organizations that bring together private companies, universities, research centers, and governments to reach consensus on the best technological solutions; and (iii) de facto standards, which emerge when a proprietary technology achieves such broad market adoption that it becomes the reference point–as in the VHS versus Betamax or Blu-Ray versus HD-DVD battles. It is important to note that this study focuses specifically on voluntary standards, and these are the definitions applied throughout the document. – CONTRERAS, Jorge L. Global markets, competition, and FRAND commitments. SSRN Electronic Journal, 2017. Available at: https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2900540. Access: 23 aug. 2025.

[12] "The key point is that standardization is a voluntary process for the development of technical, but more and more also other types of specifications based on consensus amongst the interested parties themselves: industry in first place, but also a variety of users, interest groups and public authorities. Standards, as result of standardization, have the following characteristics. They are made available to the public free of charge or for a mostly cost covering fee. Implementation is in general free of charge. Only in some cases they are subject to the payment of compensation to owners of related IPR, mostly patents (Blind et al. 2011). Finally, the usage of standards remains voluntary, although harmonised European Standards are part of the regulatory framework within the context of the so called new approach." – NESTA. The impact of standardization and standards on innovation. 2013. Available at: https://media.nesta.org.uk/documents/the_impact_of_standardization_and_standards_on_innovation.pdf. Access: 23 aug. 2025.

Standards are developed at specialized organizations known as Standards Development Organizations (SDOs), then approved by Standards Setting Organizations (SSOs).[13] These groups bring together representatives from private companies, universities, public research centers, and government agencies. Their work can be broken down into three areas, which have varying degrees of importance, but all necessary for the ecosystem to work[14]:

(i) Discovery – identifying the value and applicability of specific technologies, and selecting solutions that can deliver collective benefits in efficiency, interoperability, and safety. This reduces information asymmetries and directs R&D investment toward more promising technological and economic paths.

(ii) Standardization – selecting, voting on, and incorporating technical specifications in an open, transparent, and consensus-driven process. The goal is to ensure that companies of different sizes and backgrounds can contribute, avoiding unilateral imposition by dominant players. In practice, however, influence varies depending on the relevance and technological portfolio of each participant. The full process may take years.

(iii) Regulation – setting intellectual property policies applicable to the standardization process, including rules for handling patents declared essential to the implementation of certain technical standards.

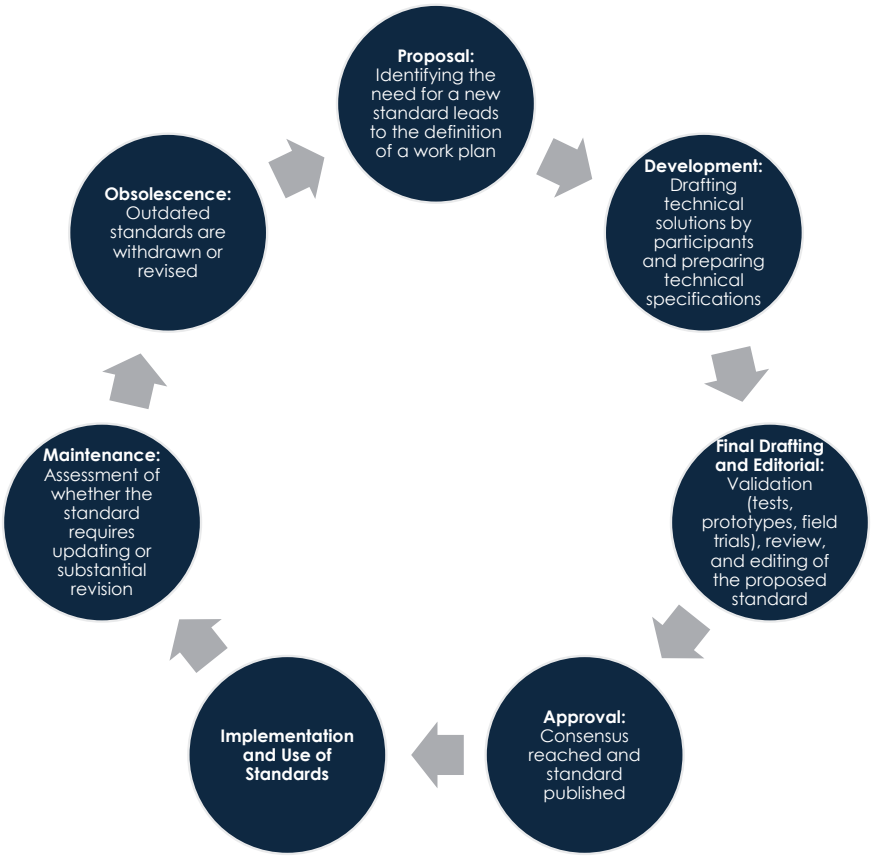
In carrying out this role, SDOs typically follow a cycle that includes: (i) identifying a technical or interoperability need; (ii) drafting an initial proposal; (iii) development and testing with input from multiple stakeholders; (iv) reaching consensus on the final text; and (v) publishing the standard for adoption. Standards are not static. They undergo periodic reviews to confirm their continued relevance or to incorporate new technological solutions.[15] This process is part of a lifecycle management system typically overseen by standard-setting organizations (SDOs):

[13] There is a body of literature that distinguishes between SDOs and SSOs, with the latter often applied in the context of the non-digital economy. For the purposes of this study, however, the terms are treated interchangeably. See: ÖZMEN, Gülfem. Standard essential patents and FRAND commitments: legal and economic perspectives. 2021. Master's Thesis (Mestrado em Direito e Economia) – LUT University, Lappeenranta, 2021. Available at: https://lutpub.lut.fi/bitstream/handle/10024/164186/Gülfem_Öz%20men_Thesis.pdf?sequence=1&isAllowed=y. Access: 23 aug. 2025

[14] ÖZMEN, Gülfem. Standard essential patents and FRAND commitments: legal and economic perspectives. 2021. Master's Thesis (Mestrado em Direito e Economia) – LUT University, Lappeenranta, 2021. Available at: https://lutpub.lut.fi/bitstream/handle/10024/164186/Gülfem_Öz%20men_Thesis.pdf?sequence=1&isAllowed=y. Access: 23 aug. 2025

[15] "The flowchart below describes an overview of a lifecycle of the development of a hypothetical technical standard. Technical standard development begins with the 'Proposal Phase', which is the initial identification of a need for either a new or revised standard, or the identification of a particular technical problem to overcome. Participants will define a work plan, and once this is accepted it will go through a Development Phase. The 'Development Phase' is where expert participants contribute to the drafting of the technical specification of the standard. Once the standard has gone through testing and validation e.g., testing of prototypes, which may include a number of revisions, it will move to the 'Approval Phase' by the SDO. Once an SDO has approved the new or revised standard it will be published and the standard is now ready for implementation into products and services, and available for use by end-users. Standards continually evolve, and will need reviewing for a new or revised standard. This is referred to here as the 'Maintenance Phase'. Standards can become redundant or obsolete and may be withdrawn or replaced, where the 'Proposal Phase' is undertaken again, and work starts on the revision or creation of a new standard. Development of standards takes time and standards can go through many iterations before consensus is reached on the final version, but very generally speaking it may take about 5 years. Variation on the 5 years will likely be associated with technical complexity and industry participation." – GOV.UK. Technical standards and standard development organisations. Londres: UK Government, 2024. Available at: https://www.gov.uk/guidance/technical-standards-and-standard-development-organisations#technical-standards-and-standardisation. Access: 23 aug. 2025.

Figure 1: Lifecycle of Technical Standards Managed by SDOs



Source: Author (adapted from Gov.UK)[16]

In summary, SDOs operate through open, transparent, and consensus-based processes, assessing technological alternatives and selecting those most suitable for broad industry adoption in a competitive environment with fewer barriers and lower transaction costs.[17] One of their key roles is to balance exclusive rights with collective access to technologies, preventing anticompetitive capture of the standard-setting process.[18] Therefore, for markets to fully realize the benefits of technical standards, a governance structure–embodied by the SDOs–is required to manage the specific dynamics that standards introduce into competition.

[16] GOV.UK. Technical standards and standard development organisations. Londres: UK Government, 2024. Available at: https://www.gov.uk/guidance/technical-standards-and-standard-development-organisations#technical-standards-and-standardisation. Access: 23 aug. 2025.

[17] "Standardization organizations (SOs), also called SSOs (standard setting organizations) or SDOs (standard developing organizations), are responsible for developing and establishing technology standards. SOs bring together various stakeholders, including industry representatives, researchers, and policymakers, to collaborate and find the best technical solutions for a standard. Although many countries have national SOs, the global nature of standardized technologies requires extensive industry and stakeholder cooperation through regional and international SOS" – WORLD INTELLECTUAL PROPERTY ORGANIZATION (WIPO). Standard essential patents (SEPs). Genebra: WIPO, 2024. Available at: https://www.wipo.int/en/web/patents/topics/sep. Access: 23 aug. 2025;

WORLD INTELLECTUAL PROPERTY ORGANIZATION (WIPO). Strategy on standard-essential patents 2024–2026. Genebra: WIPO, 2024. Available at: https://www.wipo.int/edocs/pubdocs/en/wipo-pub-rn2024-12-en-strategy-on-standard-essential-patents-2024-2026.pdf. Access: 23 aug. 2025.

[18] ÖZMEN, Gülfem. Standard essential patents and FRAND commitments: legal and economic perspectives. 2021. Master's Thesis (Mestrado em Direito e Economia) – LUT University, Lappeenranta, 2021. Available at: https://lutpub.lut.fi/bitstream/handle/10024/164186/Gülfem_Öz%20men_Thesis.pdf?sequence=1&isAllowed=y. Access: 23 aug. 2025

This governance role is critical because participation in standard-setting forums is never neutral. The behavior of participants is shaped by their strategic interests and individual characteristics–such as market position, customer base, and technology portfolio. These factors are directly tied to objectives like expanding the adoption of their solutions, strengthening reputation, consolidating competitive advantages, or influencing the technological trajectory of the industry. This ongoing engagement with the technical community naturally aligns R&D efforts with emerging trends. In practice, by adhering to a standard, a company ensures that its solutions can interoperate with those of other suppliers and compete under more predictable conditions in global markets.[19]

A mobile device manufacturer adopting USB or 5G standards, for example, guarantees that its products are interoperable with equipment from different vendors and compatible with multiple networks. This immediately expands its addressable market and reduces adoption risks for consumers, who trust the compatibility assured by the standard. This mechanism also lowers entry barriers for new competitors, since it removes the need to build closed ecosystems. Rather than competing through incompatible formats, companies can focus on competing through the quality of their solutions.

This structural function of standards prevents market fragmentation and strengthens competition around attributes that matter to consumers. At the same time, it gives standards a central role in shaping competitive architectures, influencing how market participants interact, innovate, and position themselves strategically. To preserve this balance, however, the role of SDOs as governance bodies is indispensable in mitigating attempts to capture the standard-setting process for private interests.

1.2 The Specificities of Standard Essential Patents That Require Differentiated Treatment

It is in this environment that Standard Essential Patents (SEPs) come into play. Their defining feature – their indispensability for implementing a standard – places SEP holders in a unique position within the markets where they operate. This unique position stems from the ambivalence inherent to technical standards themselves: while broad adoption promotes interoperability and technological diffusion, it can also reinforce path dependence and slow the transition away from legacy solutions. SEPs sit precisely at this intersection, inheriting both the pro-competitive benefits and the structural constraints associated with standard adoption.[20]

[19] ÖZMEN, Gülfem. Standard essential patents and FRAND commitments: legal and economic perspectives. 2021. Master's Thesis (Mestrado em Direito e Economia) – LUT University, Lappeenranta, 2021. Available at: https://lutpub.lut.fi/bitstream/handle/10024/164186/Gülfem_Öz%20men_Thesis.pdf?sequence=1&isAllowed=y. Access: 23 aug. 2025

[20] CONSELHO ADMINISTRATIVO DE DEFESA ECONÔMICA (CADE). Contribuições do CADE sobre patentes essenciais. Brasília: CADE, 2020. Available at: https://cdn.cade.gov.br/Portal/centrais-de-conteudo/publicacoes/contribuicoes-do-cade/Contribuições-do-Cade-Patentes-Essenciais.pdf. Access: 23 aug. 2025.

These tensions become even more pronounced when a standard encompasses a large number of SEPs.[21] In such cases, essentiality can shift from being an enabler to becoming a barrier, undermining the benefits of standardization[22] and the need to preserve competition and stimulate innovation:

> "Despite their potential benefits, voluntary consensus standards have over the past decade become the subject of significant private litigation, regulatory enforcement and policy debate. Much of the current controversy centers on the perceived proliferation of patents covering standardized technologies, potentially abusive enforcement of such patents against manufacturers and users of standardized products, and the terms on which patent holders may be required to license the use of those patents to others.". [23]

A specific phenomenon tied to the proliferation of patents within standards that has sparked debate is the fragmentation of ownership. In modern standards such as 5G[24], it is common for hundreds of patent families to be declared essential, often held by different companies across multiple jurisdictions. This means that the full implementation of a standard depends on obtaining licenses from multiple holders, each controlling a fragment of the required technology. These are not substitutes among competing technologies but rather complements: to deliver a product compliant with the standard, the implementer must secure licenses covering multiple technical blocks dispersed across different owners.[25]

The result is heightened coordination challenges, as each patent holder may negotiate separately, with its own timelines, royalty calculation methods, and expectations. In practice, an implementer seeking to bring a compliant product to market faces a web of negotiations, contracts, and potential disputes–driving up transaction costs and legal uncertainty. This phenomenon reflects what economic literature describes as the "tragedy of the anticommons," where a resource–here, the standardized technology–ends up underutilized because multiple owners hold blocking rights, making it difficult to efficiently obtain all necessary licenses.[26] The outcome is a significant increase in both transaction costs and legal uncertainty for any company aiming to launch a compliant product.

[21] "As interoperability standards increasingly incorporate technologies covered by intellectual property rights, their development has become more complicated." – DEPARTMENT OF JUSTICE (DOJ). Policy statement on remedies for standards-essential patents subject to voluntary F/RAND commitments. Washington, D.C.: DOJ, 2019. Available at: https://www.justice.gov/atr/page/file/1228016/dl?inline=. Access: 23 aug. 2025.

[22] "Despite these benefits, standards also have potential negative impacts. For instance, they can prevent market entry, delay the adoption of new or improved standards, and reduce the variety (ITU, 2014)" – ÖZMEN, Gülfem. Standard essential patents and FRAND commitments: legal and economic perspectives. 2021. Master's Thesis (Mestrado em Direito e Economia) – LUT University, Lappeenranta, 2021. Available at: https://lutpub.lut.fi/bitstream/handle/10024/164186/Gülfem_Öz%20men_Thesis.pdf?sequence=1&isAllowed=y. Access: 23 aug. 2025

[23] CONTRERAS, Jorge L. Global markets, competition, and FRAND commitments. SSRN Electronic Journal, 2017. Available at: https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2900540. Access: 23 aug. 2025.

[24] POHLMAN, Tim; RICHTER, Marco; BUGGENHAGEN, Magnus. Who is Leading the 5G Patent Race? Out. 2023.

[25] LEMLEY, Mark A.; SHAPIRO, Carl. Patent Holdup and Royalty Stacking. Texas Law Review, v. 85, p. 1991-2049, 2007. Available at: https://ssrn.com/abstract=923468

[26] BUCHANAN, James M.; YOON, Yong J. Symmetric tragedies: commons and anticommons. Journal of Law & Economics, Chicago, v. 43, n. 1, p. 1-13, abr. 2000.

> "The wastage of value [in an anticommons] will be a function of the number of decision-making units that are assigned rights to exclude users–rights that may be simultaneously exercised. As this number increases, the wastage of underutilization increases, and, in the limit, the resource will be completely unused.".[27]

Fragmentation also amplifies power asymmetries in negotiations: since each holder retains exclusivity over an indispensable portion of the standard, their ability to exert pressure on implementers multiplies–even if each patent, on its own, represents only a fraction of the value of the final product. As a result, fragmentation increases implementers' vulnerability, because the failure to license even a single SEP can block the production or commercialization of the entire device. This dispersion of ownership is directly connected to the phenomenon known as royalty stacking:

> "Royalty stacking refers to situations in which a single product potentially infringes on many patents, and thus may bear multiple royalty burdens. The term 'royalty stacking' reflects the fact that, from the perspective of the firm making the product in question, all of the different claims for royalties must be added or 'stacked' together to determine the total royalty burden borne by the product if the firm is to sell that product free of patent litigation.".[28]

In other words, if each SEP holder seeks to maximize its individual compensation, the cumulative royalties demanded may far exceed the incremental value the technology contributes to the product. The implementer, therefore, does not face only the risks associated with a bilateral negotiation, but the compounded risk of multiple simultaneous negotiations, which accumulate into significant financial burdens.[29]

These are just two of the main examples where essentiality can turn into a barrier rather than an incentive. To understand how this dynamic–central to the discussion in this study on the risks created by the absence of clear guidelines for SEPs in Brazil–unfolds, it is necessary to examine how essential patents affect the balance between innovation and competition differently from ordinary patents. This requires (i) defining SEPs and distinguishing them from regular patents; and (ii) explaining how a patent comes to be classified as essential, as well as the implications of that status, particularly in licensing, which lies at the core of the legal disputes analyzed in this study.

Starting with the basics, SEPs can be defined as patents whose use is indispensable to implement a given technological standard. They protect inventions without which adherence to the agreed technical specifications is not possible. In practice, this means that any company seeking to launch a product compliant with the standard–such as a 5G smartphone, a Wi-Fi

[27] BUCHANAN, James M.; YOON, Yong J. Symmetric tragedies: commons and anticommons. Journal of Law & Economics, Chicago, v. 43, n. 1, p. 1-13, abr. 2000.

[28] LEMLEY, Mark A.; SHAPIRO, Carl. Patent Holdup and Royalty Stacking. Texas Law Review, v. 85, p. 1991-2049, 2007. Available at: https://ssrn.com/abstract=923468

[29] LEMLEY, Mark A.; SHAPIRO, Carl. Patent Holdup and Royalty Stacking. Texas Law Review, v. 85, p. 1991-2049, 2007. Available at: https://ssrn.com/abstract=923468

enabled laptop, or a connected car–must necessarily obtain a license to use the technologies covered by these patents[30]:

> "According to the World Intellectual Property Organization (WIPO), a standard essential patent (SEP) is a patent that protects an invention indispensable for the implementation of a specific technological standard. These standards are critical to ensuring the safety, interoperability, and compatibility of different products and services offered by multiple companies. As Colangelo (2024) notes, a patent is considered essential whenever it is impossible to implement a given standard without using it. A patent may be essential in its entirety or only with respect to one or more of its claims. While the rules established by the organizations responsible for developing a standard may vary, the role of a standard essential patent remains the same.".[31]

SEPs may be held by two main types of entities: product manufacturers that use the protected technologies in their own production processes, and Non-Practicing Entities (NPEs) that rely on licensing as their main source of revenue.[32] For both, even though the granting process follows the same patentability criteria applied to any other patent[33], once a patent is recognized as essential, it is fundamentally different from others.[34]

While the granting process is the same, it is important to emphasize that these two types of entities operate under distinct economic incentives. When a SEP is held by a manufacturing company, there are usually cross-incentives: on one hand, an interest in monetizing its patents; on the other, the need to secure access to complementary technologies in order to remain competitive in the final product market. For NPEs, the logic is different: since they do not participate directly in production, their business model depends almost exclusively on maximizing licensing revenues. This may lead to more aggressive strategies, as they do not

[30] WORLD INTELLECTUAL PROPERTY ORGANIZATION (WIPO). Strategy on standard-essential patents 2024–2026. Genebra: WIPO, 2024. Available at: https://www.wipo.int/edocs/pubdocs/en/wipo-pub-rn2024-12-en-strategy-on-standard-essential-patents-2024-2026.pdf. Access: 23 aug. 2025.

[31] [free translation]: "Segundo a Organização Mundial de Propriedade Intelectual (OMPI), uma patente essencial a um padrão, ou simplesmente patente essencial (SEP, do inglês standard essential patent) é uma patente que protege uma invenção essencial para a implementação de um padrão tecnológico específico. Esses padrões são essenciais para garantir a segurança, a interoperabilidade e a compatibilidade de diferentes produtos e serviços disponibilizados por diversas empresas. Segundo Colangelo (2024), uma patente é considerada essencial sempre que for impossível implementar determinado padrão sem fazer uso dela. Uma patente pode ser essencial em sua integralidade ou em relação a uma ou mais de suas reivindicações. As normas estabelecidas pelas entidades responsáveis pela elaboração de um padrão podem variar, mas a função de uma patente essencial é a mesma." – CONSELHO ADMINISTRATIVO DE DEFESA ECONÔMICA (CADE). Contribuições do CADE sobre patentes essenciais. Brasília: CADE, 2020. Available at: https://cdn.cade.gov.br/Portal/centrais-de-conteudo/publicacoes/contribuicoes-do-cade/Contribuições-do-Cade-Patentes-Essenciais.pdf. Access: 23 aug. 2025.

[32] ÖZMEN, Gülfem. Standard essential patents and FRAND commitments: legal and economic perspectives. 2021. Master's Thesis (Mestrado em Direito e Economia) – LUT University, Lappeenranta, 2021. Available at: https://lutpub.lut.fi/bitstream/handle/10024/164186/Gülfem_Öz%20men_Thesis.pdf?sequence=1&isAllowed=y. Access: 23 aug. 2025

[33] CONFEDERAÇÃO NACIONAL DA INDÚSTRIA (CNI). 5G: oportunidades de negócios e impactos na indústria. Brasília: CNI, 2020. Available at: https://static.portaldaindustria.com.br/media/filer_public/a0/78/a0787a77-df85-41c6-888e-031ad420a699/id_237707_documento_5g.pdf. Access: 23 aug. 2025.

[34] ÖZMEN, Gülfem. Standard essential patents and FRAND commitments: legal and economic perspectives. 2021. Master's Thesis (Mestrado em Direito e Economia) – LUT University, Lappeenranta, 2021. Available at: https://lutpub.lut.fi/bitstream/handle/10024/164186/Gülfem_Öz%20men_Thesis.pdf?sequence=1&isAllowed=y. Access: 23 aug. 2025

bear the indirect effects that excessive royalties can impose on the production chain.[35] These differences often require distinct considerations when assessing how to balance intellectual property rights with competition policy.[36]

Despite these differences, a central point remains: while an ordinary patent grants the holder the right to exclude third parties but still allows for alternative technological solutions, a SEP occupies a uniquely strategic position. Once incorporated into a standard, it effectively turns the holder into a gatekeeper of the technology, with the ability to influence not only licensing negotiations but also the competitive dynamics of the market itself, thereby enhancing its bargaining power. Put differently, while the exclusivity of a regular patent can often be bypassed through alternative technological paths, essentiality makes a SEP, by definition, unavoidable. This prerequisite nature–its role as a condition for compliance with the standard–sets SEPs apart from ordinary patents and justifies the need for differentiated legal and economic treatment.[37]

The importance of SEPs, therefore, does not stem solely from the intrinsic value of the invention but primarily from their integration into the decision-making process of standard-setting organizations (SDOs), which grant them the status of being irreplaceable within a technological ecosystem. For this reason, SEP holders undertake licensing commitments under fair, reasonable, and non-discriminatory terms–commonly referred to as FRAND commitments.[38] These commitments act as safeguards: they ensure that the value of innovation is compensated proportionately, without turning the holder's strategic position into a tool for blocking access or extracting excessive value. As highlighted by the World Intellectual Property Organization (WIPO), FRAND criteria are designed to strike a balance between intellectual property and competition, protecting both the return on investment in technology and the incentives for innovation:

> "A process in which competitors develop standards that incorporate proprietary technologies is, by design, at the interface of IP law and antitrust law. [...] To address the inherent friction between making standardized technology available to implementers of the standard on the one hand, and the economic incentive due to the holders of granted patents on the other, a solid licensing system is crucial. SEP licensing needs to be done under fair, reasonable and non-discriminatory (FRAND) terms, so that the benefits of technological standardization flow through to society as a whole, while maintaining a balance between the legitimate interests

[35] CHIEN, Colleen V.; LEMLEY, Mark A. Patent holdup, the ITC, and the public interest. Cornell Law Review, Ithaca, v. 98, n. 1, p. 1-48, Nov. 2012.

[36] CONSELHO ADMINISTRATIVO DE DEFESA ECONÔMICA (CADE). Contribuições do CADE sobre patentes essenciais. Brasília: CADE, 2020. Available at: https://cdn.cade.gov.br/Portal/centrais-de-conteudo/publicacoes/contribuicoes-do-cade/Contribuições-do-Cade-Patentes-Essenciais.pdf. Access: 23 aug. 2025.

[37] CONSELHO ADMINISTRATIVO DE DEFESA ECONÔMICA (CADE). Contribuições do CADE sobre patentes essenciais. Brasília: CADE, 2020. Available at: https://cdn.cade.gov.br/Portal/centrais-de-conteudo/publicacoes/contribuicoes-do-cade/Contribuições-do-Cade-Patentes-Essenciais.pdf. Access: 23 aug. 2025.

[38] WORLD INTELLECTUAL PROPERTY ORGANIZATION (WIPO). Strategy on standard-essential patents 2024–2026. Genebra: WIPO, 2024. Available at: https://www.wipo.int/edocs/pubdocs/en/wipo-pub-rn2024-12-en-strategy-on-standard-essential-patents-2024-2026.pdf. Access: 23 aug. 2025.

> of SEP holders and implementers – who can, and in many cases do, undertake both roles simultaneously. The requirement to commit to FRAND licensing terms is rooted in the SDOs' intellectual property rights (IPR) policies. However, the enforcement of those undertakings, as well as determining what FRAND is, falls outside the purview of these bodies.".[39]

In summary, the goal is a mutually beneficial scenario: by allowing their technology to be incorporated into a standard, the holder gives up the full exercise of exclusivity rights in exchange for broader diffusion and new licensing opportunities, while committing to negotiate under balanced conditions. Implementers, in turn, gain access to the necessary technologies on fair, reasonable, and non-discriminatory terms. SEP holders, for their part, secure appropriate economic returns and compensation for their investments in research and development[40].

It is important to note that for this commitment to be effective, it must be legally binding: if it is treated merely as a promise–as argued by some patent holders–it cannot be considered a true commitment. Even so, there is no consensus on this point.[41] FRAND is not a specific type of license. Rather, it provides guiding principles for negotiations between patent holders and implementers.

These principles generally encompass three dimensions. The first is fair and reasonable remuneration, reflecting the economic value of the technology incorporated into the standard while avoiding excessive royalties. The second is non-discrimination, ensuring that similarly situated implementers receive equivalent treatment, although objective factors – such as sales volumes or cross-licensing arrangements – may justify certain differences. The third dimension is good-faith negotiation between the parties, requiring both holders and implementers to conduct discussions transparently and within a reasonable timeframe.

Nevertheless, even with SDOs acting as governance structures responsible for defining standards and formulating intellectual property policies–including the identification of

[39] WORLD INTELLECTUAL PROPERTY ORGANIZATION (WIPO). Strategy on standard-essential patents 2024–2026. Genebra: WIPO, 2024. Available at: https://www.wipo.int/edocs/pubdocs/en/wipo-pub-rn2024-12-en-strategy-on-standard-essential-patents-2024-2026.pdf. Access: 23 aug. 2025.

[40] "In the last two decades, antitrust enforcement in the standard-setting entities has conducted many studies on the interpretation and implementation of FRAND terms (Melamed and Shapiro, 2018). Overall, licensing under FRAND terms and conditions promotes standard adoption and participation in the standardization process. Also, FRAND commitment is beneficial for both licensors and licensees. For licensees or implementers, FRAND promises to get a license on fair, reasonable, and non-discriminatory terms while licensors generate revenue and are compensated for their R&D investments through SEP licensing." – ÖZMEN, Gülfem. Standard essential patents and FRAND commitments: legal and economic perspectives. 2021. Master's Thesis (Mestrado em Direito e Economia) – LUT University, Lappeenranta, 2021. Available at: https://lutpub.lut.fi/bitstream/handle/10024/164186/Gülfem_Öz%20men_Thesis.pdf?sequence=1&isAllowed=y. Access: 23 aug. 2025

[41] "Put another way, the FRAND commitment is at its base an agreement not to exercise the full scope of the patentee's rights in exchange for having its technology adopted as an industry standard, likely resulting in increased licensing opportunities. For that commitment to be effective, it must be a legally binding obligation. A "FRAND commitment" that is nothing more than a promise to later license to a party only if the patentee feels like it–the position some patentees have taken –is not a commitment at all. Rather, to work properly, the FRAND commitment must itself be an undertaking by the patentee to limit its rights, and SSOs should make it clear that they regard it as one. Our preferred approach is that the FRAND commitment be treated as an enforceable license agreement with reasonable terms to be determined in the future" – GERADIN, Damien. The meaning of FRAND, part I: royalties. SSRN Electronic Journal, 2013. Available at: https://dx.doi.org/10.2139/ssrn.2243026. Access: 23 aug. 2025.

essentiality and the imposition of the FRAND commitment–significant challenges remain, both in determining essentiality and in the practical application of these principles[42]:

> "SEP owners and technology implementers may at times have a differing interpretation of what terms can be considered FRAND, and what behavior is expected from a willing licensor or licensee. This may create difficulties in defining the FRAND terms. Other often disputed issues are the validity of the relevant patents, and whether the patents are genuinely essential to the standard. Such differences may result in an impasse in licensing negotiations, and give rise to disputes between the parties, leading to litigation and/or the use of alternative dispute resolution (ADR) mechanisms.".[43]

With respect to essentiality, the challenge stems from the subjectivity of the process, which leaves room for strategic behavior. Since the analysis is technical rather than commercial, it involves assessing whether, given the specifications of the standard, viable alternatives exist–the essentiality may apply to the entire patent or only to some of its claims. In this context, some companies declare as essential patents that are not, in order to increase their bargaining power, while others omit declarations to avoid licensing obligations. Technological evolution itself may also reduce the relevance of certain patents, which may cease to be essential in later generations. This environment of uncertainty increases transaction costs, complicates negotiations, and fuels litigation:

> "While there is general agreement that 'essentiality' is at the core of an IPR policy – in most policies, both disclosure obligations and licensing commitments depend on this – there is a surprisingly wide variation (as well as imprecision) regarding how this extremely important element should be defined. In a number of cases, we observed vagueness and/or a failure to address important concepts. Inevitably, these lapses may cause confusion on the part of those operating under the terms of the policies in question, and may lead to costly and time consuming litigation in the breach".[44]

Still, some institutions have proposed guidelines for evaluating essentiality, such as the UK Intellectual Property Office, which describes the process as a combination of technical and legal analyses conducted by experts. In broad terms, the examination may involve four steps:

First, the relevant standard must be identified, determining which technical specifications the patent relates to. Second, claim mapping compares the patent's claims with the standard's specifications, often using claim charts prepared by the patent holder. Third, infringement analysis assesses whether the product or process actually implements the patented

[42] WORLD INTELLECTUAL PROPERTY ORGANIZATION (WIPO). WIPO ADR options for FRAND disputes: management and resolution. Genebra: WIPO, 2022. Available at: https://www.wipo.int/export/sites/www/amc/en/docs/2022/wipo_adr_options_for_frand_disputes_management_resolution.pdf. Access: 23 aug. 2025

[43] WORLD INTELLECTUAL PROPERTY ORGANIZATION (WIPO). Standard essential patents (SEPs). Genebra: WIPO, 2024. Available at: https://www.wipo.int/en/web/patents/topics/sep. Access: 23 aug. 2025.

[44] GERADIN, Damien. The meaning of FRAND, part II: application and enforcement of FRAND terms in the US and the EU. SSRN Electronic Journal, 2013. Available at: https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2333445. Access: 23 aug. 2025.

technology, noting that not all standard functions are mandatory. Fourth, some systems rely on third-party assessments, in which independent experts evaluate essentiality – particularly in patent pools – although final determinations of validity and infringement remain with courts or arbitration.[45]

As for the FRAND commitment, the difficulties go beyond the omission of declarations. Even when a FRAND commitment exists, its enforcement is far from straightforward. There is no universally accepted definition of what constitutes a "fair, reasonable, and non-discriminatory" license. In general, the three elements of the acronym are interpreted as interdependent principles. "Fair" and "reasonable" require licensing conditions that are not anticompetitive and that reflect the economic value of the patented technology without granting undue advantage to either party. "Non-discriminatory" means that similarly situated implementers should have access to equivalent licensing terms. This does not mean absolute uniformity in rates or conditions, as differences may be justified by objective factors–such as cross-licensing agreements, sales volumes, or geographic scope–but such distinctions must be properly substantiated.[46]

In other words, there is no consensus on an objective definition of the criteria, nor on the appropriate method for calculating royalties, the level of the value chain where licensing should occur, or even what constitutes good-faith conduct. Added to this is information asymmetry: implementers often lack full access to technical data or comparable licenses,

[45] "The process for potential licensees to assess essentiality may involve the following steps: 1. Identify the relevant standard(s) or subset of standard: identify the standard to which the patent is claimed to be essential and then identify the relevant sub-set of the standard (if appropriate). This will involve reviewing relevant technical specifications for that standard identified by the patent owner. 2. Claim mapping: the claims of a patent can then be mapped against the technical standards' specification. This will involve analysing the language and scope of the claims in a patent to decide if they cover the technology standard claimed by the SEP holder covered by their SEP. A SEP owner usually provides information such as claim charts, which map the claims in the patent to relevant aspects in the technical specification(s) for the standard. If they have not been provided, a potential licensee can and should request them. This step includes technical and legal analysis, and expert advice is often required. See Annex 1 for examples of claim charts. 3. Infringement analysis: to analyse whether the patented technology is used in the product or process which is implementing the standard. For example, the product or process may not use optional portions of the standard or may implement the standard in a manner different to those specified in the standard. Those differences may mean that the product or process, whilst capable of implementing the standard, does not fall within the scope of the SEP. Claims mapping comparing the claims of the patent against the product or process will also be required to establish infringement. This may require technical and legal analysis, and expert advice. 4. In some cases, third party assessments and expert input: when a patent becomes part of a licensing platform (e.g., a patent pool) it may undergo assessment by an independent expert. In patent pools this is mainly concerned with verifying the essentiality of the patent to the standard and not with verifying the validity of the patent because there is an assumption that the patent is valid experts can help provide a non-binding opinion on whether some aspects of the standard are implemented, and therefore whether a licence is actually required, as well as the assessment of essentiality Expert input may also be required to assess the significance of the patent in relation to the standard, which is also related to valuation of the patent and not essentiality. Ultimately, when there is a dispute over whether a patent is valid and infringed, courts or arbitration panels will decide the issues (including essentiality) and will rely on the evidence of technical subject-matter experts to help them determine the issues in dispute." – GOV.UK. Technical standards and standard development organisations. Londres: UK Government, 2024. Available at: https://www.gov.uk/guidance/technical-standards-and-standard-development-organisations#technical-standards-and-standardisation. Access: 23 aug. 2025.

[46] GOV.UK. Standard essential patent licensing. Londres: UK Government, 2024. Available at: https://www.gov.uk/guidance/standard-essential-patent-licensing#standard-essential-patent-licensing. Access: 23 aug. 2025.

making it difficult to assess whether an offer is truly FRAND-compliant.[47] For this very reason, as will be discussed later, guidelines that rely too heavily on a detailed assessment of the negotiation process tend to be problematic and overly complex, as issues of transparency, subjectivity, and information asymmetry systematically favor the stronger party–in this case, the patent holder.

Hence, SEPs cannot be treated as ordinary patents. From the moment they are declared essential, they are encumbered with restrictions on how they can be licensed that do not apply to other patents by the FRAND licensing commitment and the governance rules of SDOs. These commitments were designed to balance the inherent tensions between intellectual property protection and competition. Yet their practical application faces significant challenges, and without clear guidelines, they often lead to prolonged litigation that distorts competition, undermines technology diffusion, and harms both the economy and consumers. More than just affecting bilateral disputes between holders and implementers, the unavailability of a SEP can threaten the entire technological ecosystem built around the standard[48].

This situation becomes even more evident when considering that, although there is already a governance structure for technical standards and SEPs in the form of SDOs, many of these challenges end up being shifted to the judiciary. It is inconsistent that patents subject to unique conditions–such as the FRAND commitment and standardization rules–are judged with the same tools used for ordinary patents. Without differentiated guidelines that recognize their distinctive nature, disputes involving SEPs tend to drag on, generate uncertainty, and negatively impact both implementers and consumers.

In short, standard essential patents represent a point of intersection between innovation and technological diffusion. They are not merely ordinary patents of increased importance; they are structural instruments of economic and legal governance in technology-intensive industries. This very ambiguity is what creates space for disputes with significant competition implications. It is precisely this regulatory gap that will be examined in the next section.

[47] "The specifics of this commitment may differ from SDO to SDO globally. ETSI, for example, has a 'positive' declaration process, meaning that its members are only bound to the licensing commitment in respect of a disclosed patent, when they provide a declaration to ETSI covering a particular standard and specified IPR. Some other SDOs operate a 'blanket declaration' system, automatically binding their members to the licensing commitment, unless a member notifies the SDO to the contrary." – GOV.UK. Technical standards and standard development organisations. Londres: UK Government, 2024. Available at: https://www.gov.uk/guidance/technical-standards-and-standard-development-organisations#technical-standards-and-standardisation. Access: 23 aug. 2025.

[48] CONSELHO ADMINISTRATIVO DE DEFESA ECONÔMICA (CADE). Contribuições do CADE sobre patentes essenciais. Brasília: CADE, 2020. Available at: https://cdn.cade.gov.br/Portal/centrais-de-conteudo/publicacoes/contribuicoes-do-cade/Contribuições-do-Cade-Patentes-Essenciais.pdf. Access: 23 aug. 2025.

2. The Absence of Specific Guidelines Fosters Anticompetitive Abuses and Market Distortions, Particularly in the Context of Injunctions

The discussion of concepts, operating models, and the relevance of technical standards, combined with the analysis of the particularities of SEPs and the FRAND licensing commitment, makes it clear that these patents require differentiated treatment in competition policy debates. However, the absence of clear guidelines to govern the application of these commitments in Brazil creates an environment vulnerable to strategic practices that distort competition and erode the expected benefits of standardization.

Among these practices, a central concern is the use of legitimate legal tools–such as lawsuits and injunctions–not merely to protect intellectual property rights, but also as instruments of commercial pressure. In such cases, injunctions may be used to impose supra-FRAND conditions, force global settlements on abusive terms, or restrict competitors' access to indispensable technologies. This problem arises directly from the gap highlighted in the previous section: although SEPs are subject to specific licensing commitments, courts often treat them as ordinary patents, without accounting for the competitive risks inherent in their essential nature.

The purpose of this section, therefore, is to examine how the absence of clear parameters for evaluating conduct involving SEPs facilitates the spread of abuses and market distortions. The analysis will be developed along two lines: (i) describing the strategic practices used by SEP holders to impose supra-FRAND royalties, with particular emphasis on the use of injunctions as a pressure mechanism; and (ii) assessing how such practices are framed as anticompetitive conduct.

2.1 The Conduct: Strategic Use of Injunctions to Impose Supra-FRAND Royalties or Force Abusive Global Settlements

The strategic use of injunctions in SEP litigation has become a recurring practice to circumvent FRAND commitments, especially in disputes over royalty rates, the basis for calculating royalties, and good faith in the negotiation process.[49] Among these, royalty determination has received the most attention[50], as much of the global controversy revolves around SEP holders seeking injunctions to block alleged infringements, while implementers argue that those same holders are violating their FRAND commitments.[51] This phenomenon is reinforced by

[49] CONTRERAS, Jorge L. Global markets, competition, and FRAND commitments. SSRN Electronic Journal, 2017. Available at: https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2900540. Access: 23 aug. 2025.

[50] "The Nature of FRAND Disputes Many different types of disputes have arisen over the years in connection with technical standards and standard-setting. Recently, however, the highest-profile litigation in this area has involved disagreement over the royalty rate that a SEP holder may charge the implementer of a standard to operate under its SEPs."– LEMLEY, Mark A.; MELAMED, A. Douglas. Missing the forest for the trolls. SSRN Electronic Journal, 2020. Available at: https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3647587. Access: 23 aug. 2025.

[51] CONTRERAS, Jorge L. Global markets, competition, and FRAND commitments. SSRN Electronic Journal, 2017. Available at: https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2900540. Access: 23 aug. 2025.

the architecture of technical standards, which creates increasingly global and interdependent markets, where provisional judicial measures assume exceptional strategic value.

> "Injunctions are a type of court remedy where a judge orders a party to do something or to refrain from doing something. In the context of SEPs, this will most likely be a final injunction requiring a party to refrain from infringing the SEP, i.e. using the technology which is protected by the SEP without having a licence to do so from the SEP owner. Where infringement is established and validity is upheld, a final injunction will normally be granted to prevent further infringement of the patent for as long as it remains in force or until such time as the infringer enters into a licence. [...] Obtaining an injunction in SEPs cases is different compared to ordinary patents cases due to the nature of SEPs and the FRAND licensing commitment given by a SEP holder to an SDO".[52]

More specifically, three types of strategic measures have gained prominence in this context: (i) injunctions prohibiting manufacturing and sales; (ii) stop-ship and recall orders; and (iii) multijurisdictional coordination measure.[53] Injunctions prohibiting manufacturing and sales (immediate suspension of production and commercialization) temporarily prevent the continued manufacturing, importation, or sale of allegedly infringing products. In standardized environments, the literature recognizes that such measures have a disproportionate impact: even a temporary halt in production lines or product commercialization creates operational risks, disrupts distributor contracts, and damages reputation.[54]

Recent analyses highlight that this economic harm can even be substantial, ranging from production shutdowns and supply-chain penalties to broader financial stress on firms. Notably, in 2024, Hayes and Zimring[55] showed that injunctions in SEP disputes could trigger significant economic losses even before adjudication on the merits, and the Public Interest Patent Law Institute documented additional systemic effects, including workforce disruption, risks to jobs, and cascading impacts on downstream markets[56]. Thus, even before any judicial ruling, the mere prospect of an injunction shifts bargaining power toward the holder, because in practice the tool works as a "lever of urgency": the marginal cost of pressing for supra-FRAND terms is low for the holder but extremely high for the implementer – particularly when the measure is pursued simultaneously in multiple forums.

[52] GOV.UK. Dispute resolution and remedies in SEP licensing. Londres: UK Government, 2024. Available at: https://www.gov.uk/guidance/dispute-resolution-and-remedies-in-sep-licensing#typical-disputes-in-seps-and-frand-licensing. Access: 23 aug. 2025.

[53] WORLD INTELLECTUAL PROPERTY ORGANIZATION (WIPO). Strategy on standard-essential patents 2024–2026. Genebra: WIPO, 2024. Available at: https://www.wipo.int/edocs/pubdocs/en/wipo-pub-rn2024-12-en-strategy-on-standard-essential-patents-2024-2026.pdf. Access: 23 aug. 2025.

[54] WORLD INTELLECTUAL PROPERTY ORGANIZATION (WIPO). Strategy on standard-essential patents 2024–2026. Genebra: WIPO, 2024. Available at: https://www.wipo.int/edocs/pubdocs/en/wipo-pub-rn2024-12-en-strategy-on-standard-essential-patents-2024-2026.pdf. Access: 23 aug. 2025.

[55] HAYES, Eli; ZIMRING, Andrew. Injunctions in Litigation Involving SEPs. GRUR Patent, v. 2024, p. 240–245, 2024. Disponível em: </mnt/data/Hayes-Zimring_GRUR-Patent-2024-240-245_.pdf>. Acesso em: 24 nov. 2025.

[56] PUBLIC INTEREST PATENT LAW INSTITUTE (PIPLI). Hidden Costs of Automatic Injunctions in SEP Patent Cases. 2024. Disponível em: </mnt/data/PIPLI-EUInjunctionStudypdf.pdf>. Acesso em: 24 nov. 2025.

Stop-ship and recall orders (market withdrawal) target inventories and distribution channels. A stop-ship prevents the shipment and delivery of already-produced lots, while a recall mandates the withdrawal of products already placed in retail. Both measures amplify cost asymmetries by shifting legal uncertainty onto the supply chain and retailers, multiplying the risk of unrecoverable losses. In FRAND negotiations, such measures can push the implementer into accepting portfolio-wide packages with scope and royalties exceeding the actual technical contribution of the patented functionality–simply to release logistics and restore cash flow.[57]

Finally, in global markets, there is growing use of anti-suit injunctions (ASIs) and anti-anti-suit injunctions (AASIs). An ASI prevents the counterparty from initiating or pursuing parallel proceedings in another jurisdiction, while an AASI seeks to prevent the counterparty from obtaining an ASI that would block proceedings in the preferred forum.[58] In FRAND disputes, these measures are used to "freeze" infringement actions while a court defines the terms of a license–often with global reach–or to neutralize tactical advantages obtained in jurisdictions deemed more favorable.[59]

Although, like an ASI, an AASI operates *in personam*, its function is distinct: it does not seek to block a parallel action in another court but rather to prevent that action from being blocked, allowing the case to move forward. For this reason, the considerations courts apply when analyzing ASIs do not automatically extend to AASIs, which are less common and lack uniform criteria for issuance. In the FRAND litigation landscape, a split is evident across legal traditions: common law courts have resorted to ASIs more frequently, while civil law courts have increasingly issued AASIs in response–viewing ASIs as offensive measures, even breaches of international law.[60] Regardless of jurisdiction, the outcome is a spiral of cross-measures, where "court time" replaces "market time"–and once again, the threat of halting sales in key markets is converted into bargaining power.[61]

These measures often come bundled with proposals for "global licensing agreements": portfolio contracts that grant the implementer a license to use, across multiple countries, the patents (present–and sometimes future) declared essential to a given standard.[62] The practical rationale is the territorial nature of patents: because rights are national, country-by-country licensing would be impracticable for products sold worldwide.

[57] WORLD INTELLECTUAL PROPERTY ORGANIZATION (WIPO). Strategy on standard-essential patents 2024–2026. Genebra: WIPO, 2024. Available at: https://www.wipo.int/edocs/pubdocs/en/wipo-pub-rn2024-12-en-strategy-on-standard-essential-patents-2024-2026.pdf. Access: 23 aug. 2025.

[58] LEMLEY, Mark A.; MELAMED, A. Douglas. Missing the forest for the trolls. SSRN Electronic Journal, 2020. Available at: https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3647587. Access: 23 aug. 2025.

[59] WORLD INTELLECTUAL PROPERTY ORGANIZATION (WIPO). WIPO ADR options for FRAND disputes: management and resolution. Genebra: WIPO, 2022. Available at: https://www.wipo.int/export/sites/www/amc/en/docs/2022/wipo_adr_options_for_frand_disputes_management_resolution.pdf. Access: 23 aug. 2025

[60] LEMLEY, Mark A.; MELAMED, A. Douglas. Missing the forest for the trolls. SSRN Electronic Journal, 2020. Available at: https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3647587. Access: 23 aug. 2025.

[61] CONTRERAS, Jorge L. (2021). "The Global Reach of Anti-Suit Injunctions in FRAND Litigation." American Journal of International Law Unbound, 115, 63–69

[62] GERADIN, Damien. The meaning of FRAND, part I: royalties. SSRN Electronic Journal, 2013. Available at: https://dx.doi.org/10.2139/ssrn.2243026. Access: 23 aug. 2025.

While a global package can reduce transaction costs, it also creates material asymmetries: (i) scope is defined by the holder's portfolio, which may include patents of marginal or contestable value; (ii) "comparable" pricing references are almost always confidential; and (iii) the royalty base can be defined in ways that inflate remuneration. In addition, global portfolio licenses deprive implementers of the ability to challenge weak or vulnerable patents individually and may lead to payment for sales in jurisdictions with little or no patent coverage. Under the threat of an injunction, the implementer's choice often boils down to "accept the global package now" or face months-long shutdowns–shifting negotiations toward supra-FRAND terms without any objective assessment of the technology's contribution:

> "According to the World Intellectual Property Organization (WIPO), 'patents are territorial rights. In general, exclusive rights are applicable only in the country or region in which the patent was filed and granted, in accordance with the laws of that country or region.' Therefore, a developer of a patentable technology must file in each country where it wishes to preserve its intellectual property rights, such that patents for the same inventions may exist and be valid in many countries. Where a company seeks to license all patents or intellectual property rights of a holder of essential patents relevant to a standard on a global basis–so that the licensee can manufacture or market standardized products worldwide–it may negotiate a global portfolio licensing model. These markets are inherently global. Given their global scope and scale, it is unsurprising that patent disputes over standardized products are often litigated globally. [...] Another dilemma faced by courts adjudicating essential-patent cases is, given the national scope of patents and the worldwide reach of many licensing contracts, whether, for example, when determining a FRAND royalty rate, a court should focus only on patents issued and asserted in its own jurisdiction or consider the parties' global commercial relationship.".[63]

All of this feeds directly into forum shopping. In multijurisdictional disputes, parties identify courts more receptive to broad injunctions or global royalty setting. An SEP holder pursuing a portfolio deal may file actions in countries whose case law signals tolerance for expansive injunctions, increasing pressure on the implementer to accept proposed terms. As a result, litigation spills beyond questions of validity or essentiality and becomes a strategic tool to shape the decision-making forum. The resort to ASIs and AASIs, in this context, reflects not

[63] [free translation]: "Segundo a Organização Mundial de Propriedade Intelectual (OMPI), 'patentes são direitos territoriais. Em geral, os direitos exclusivos são aplicáveis apenas no país ou região em que a patente foi depositada e concedida, de acordo com a legislação daquele país ou região'. Portanto, o desenvolvedor de uma tecnologia patenteável deve registrar a mesma em cada país onde deseja preservar seus direitos de propriedade intelectual, assim, patentes para as mesmas invenções podem existir e serem válidas em muitos países. No caso de uma empresa querer licenciar todas as patentes ou direitos de propriedade intelectual de um titular de patentes essenciais relevantes para um padrão em nível global, para que o licenciado possa fabricar ou comercializar produtos padronizados em todo o mundo, pode negociar uma modelo de licenciamento de portfólio global. Tais mercados são inerentemente globais. Dado o escopo e o tamanho globais desses mercados, não é surpreendente que litígios de patentes sobre produtos padronizados sejam frequentemente conduzidos em escala global. [...] Outro dilema enfrentado pelos tribunais que julgam casos de patentes essenciais é, considerando o escopo nacional da patente e a abrangência mundial de muitos contratos de licenciamento, decidir se, por exemplo, ao determinar uma taxa de royalties FRAND, um tribunal deve decidir se deve se concentrar apenas nas patentes emitidas e afirmadas em sua própria jurisdição ou se deve considerar o relacionamento comercial global entre as partes" – CONSELHO ADMINISTRATIVO DE DEFESA ECONÔMICA (CADE). Contribuições do CADE sobre patentes essenciais. Brasília: CADE, 2020. Available at: https://cdn.cade.gov.br/Portal/centrais-de-conteudo/publicacoes/contribuicoes-do-cade/Contribuições-do-Cade-Patentes-Essenciais.pdf. Access: 23 aug. 2025.

only the fight over where FRAND will be set, but also each party's effort to ensure the process unfolds in the jurisdiction most aligned with its economic interests:

> "According to Contreras (2020), divergent interpretations by courts in different countries result in two 'legal races.' (...) First, a 'race to the bottom' among jurisdictions–a well-documented phenomenon in which jurisdictions intentionally adapt their rules, procedures, and substantive approaches to attract litigants. Second, disparities in judicial treatment are likely to encourage parties to initiate litigation in the most favorable jurisdiction as quickly as possible, often to shut down a later case in a less favorable forum. This dynamic is called a 'race to judgment' or 'race to the courthouse,' which can push parties prematurely into litigation rather than negotiation or settlement. The fallout is significant: parties to essential-patent licensing disputes face legal uncertainty as to which court will hear their case; this incentivizes a race to the court to secure the most favorable jurisdiction rather than focusing on licensing negotiations; it raises litigation costs due to the need to pursue multiple ASIs and AASIs; and parties risk fines and even the arrest of executives for noncompliance with judicial orders.".[64]

In short, global licensing agreements and the proliferation of procedural measures show that SEP disputes extend beyond the technical domain. These practices amplify holders' bargaining power and entrench the strategic use of injunctions as a way to sidestep FRAND commitments–behaviors tied to distorted incentives and information asymmetries that translate into anticompetitive conduct.

2.2 Framing Anticompetitive Abuse and the Importance of Guidelines to Identify and Remedy It

A review of doctrine, regulator publications, and international case law indicates growing recognition that injunctions in SEP disputes can pose material risks to competition. Across jurisdictions, courts have found that when such measures are granted without careful scrutiny, they can skew bargaining dynamics, pressure counterparties into supra-reasonable royalties, and limit implementers' market access–with potential adverse effects on innovation.

More importantly, these conclusions were only possible because courts acknowledged that, when the patent at issue is essential to a technical standard, it is subject to specific FRAND licensing obligations and the opportunistic behaviors described above. In other words, there

[64] [free translation] "Segundo Contreras (2020), as diversas interpretações dos tribunais em diferentes países resultam em duas "corridas jurídicas". (...) A primeira é uma "corrida para o fundo" entre jurisdições – um fenômeno bem documentado no qual as jurisdições adaptam intencionalmente suas regras, procedimentos e perspectivas substantivas para atrair litigantes. Em segundo lugar, as disparidades no tratamento judicial dos casos provavelmente encorajam as partes a iniciarem litígios na jurisdição mais favorável o mais rápido possível, muitas vezes para encerrar um processo posterior em uma jurisdição menos favorável. Essa situação é chamada de "corrida para o julgamento" ou "corrida para o tribunal", o que pode levar prematuramente as partes ao litígio em vez de negociação ou acordo. Essa disputa gera diversos prejuízos: as partes em disputas de licenciamento de patentes essenciais enfrentam incerteza jurídica quanto a qual tribunal julgará seu caso; isso incentiva uma corrida ao tribunal para garantir a jurisdição mais favorável em vez de se concentrar nas negociações de licenciamento; aumenta os custos do litígio por ter que buscar múltiplas ASIs e AASIs; e as partes enfrentam multas e prisão de funcionários por descumprimento de decisões judiciais." – CONSELHO ADMINISTRATIVO DE DEFESA ECONÔMICA (CADE). Contribuições do CADE sobre patentes essenciais. Brasília: CADE, 2020. Available at: https://cdn.cade.gov.br/Portal/centrais-de-conteudo/publicacoes/contribuicoes-do-cade/Contribuições-do-Cade-Patentes-Essenciais.pdf. Access: 23 aug. 2025.

is a different equilibrium between intellectual property and antitrust in the SEP context, and injunction analysis must incorporate this balance to distinguish between measures that genuinely protect IP rights and those that merely distort competitive conditions.

In these countries, the FRAND commitment is not viewed solely as an obligation toward SDOs; it is treated as a mechanism to balance competition policy with the exercise of IP rights. It serves as a check on the market power conferred by essentiality, preventing SEP ownership from becoming illegitimate exclusionary power. On this basis, the analysis proceeds as follows: (i) presenting the theoretical and regulatory underpinnings that explain the competitive risks associated with granting injunctions in SEP disputes; and (ii) outlining international case law that applies these principles. When this broader evaluation is performed–considering not only potential patent infringement but also competitive effects–multiple cases reveal that injunctions have been used as anticompetitive instruments.

> **For this reason, as practice shows, where monetary compensation is adequate, courts tend to deny injunctions to avoid irreversible harm to competition and to preserve the effectiveness of FRAND commitments[65]. It also becomes clear that guidelines centered on scrutinizing the parties' negotiation conduct tend to favor SEP holders[66]. The evidence points to greater benefits from guidelines that focus on the economic and competitive effects of the injunction threat itself, since even temporary market exclusion can shift bargaining leverage and induce agreements on terms that do not reflect FRAND parameters.**

Put simply, comparative experience indicates that when the patent holder can be adequately compensated through damages, granting preliminary measures is generally viewed as disproportionate–precisely to prevent irreversible competitive effects and to safeguard the effectiveness of FRAND.

2.2.1 Theoretical and Regulatory Foundations for Treating Injunction Requests as Anticompetitive Abuses

The starting point is the hybrid nature of SEPs: the holder retains the exclusionary right typical of IP, but–by declaring the patent essential before an SDO–voluntarily undertakes to license on FRAND terms. Recognizing this hybrid environment is what underpins regulatory and judicial

[65] Typically, in the United States and United Kingdom

[66] This is mostly the case in Germany and the UPC, conditional on case-by-case analysis

theories of anticompetitive abuse tied to SEP injunctions. While other IP issues may arise in SEP disputes[67], for strategic use of injunctions two concepts stand out:

Lock-in. This is not a mere side effect of exclusivity; it is a structural result of standardization. Once a technology is incorporated into a standard – and thus becomes an interoperability requirement – technological dependence emerges due to (i) sunk investments by implementers (R&D, hardware/software redesign, certifications, supply chains), (ii) network effects (the more agents adopt the standard, the higher the relative cost of switching), and (iii) systemic complementarities (the value of any standardized module depends on integration with other standardized modules). This triad creates ex post rigidity: even if superior solutions exist, migration becomes economically prohibitive in the short to medium term, transforming the essential patent's exclusivity into structural blocking power. As CADE explains with respect to lock-in effects caused by SEPs:

> "The determination by SSOs of the set of patents to be deemed essential–and therefore adopted by all producers as the standard for manufacturing a given good–can lead to the following problems:
>
> - Obsolescence of innovation or delays in the evolution of existing standards due to the need for SSO intervention to revise and replace those standards; and
> - Consumer dependence on technologies stipulated by SSOs (lock-in). As a consequence of the lock-in effect, end consumers have no alternative until a new committee is formed by SSOs to establish a new standard.".[68]

A growing body of scholarship further distinguishes this phenomenon by identifying three distinct and mutually reinforcing forms of lock-in:

(i) **Patent lock-in** arises during the standard-setting process: although multiple technological alternatives typically exist ex-ante, once a patented solution is incorporated into the standard, competing options cease to be viable. As highlighted by the expert report on the Nokia Corp. v. Qualcomm case[69], removing or replacing such technologies ex post is effectively impossible,

[67] Licensing agreements, refusal to license, patent pools, fraudulent and defensive patents, patent trolls, patent thickets, sham litigation, coordinated effects of SSO actions, lock-in effects, hold-up and royalty stacking, hold-out, and the tension between hold-up and hold-out. – CONSELHO ADMINISTRATIVO DE DEFESA ECONÔMICA (CADE). Contribuições do CADE sobre patentes essenciais. Brasília: CADE, 2020. Available at: https://cdn.cade.gov.br/Portal/centrais-de-conteudo/publicacoes/contribuicoes-do-cade/Contribuições-do-Cade-Patentes-Essenciais.pdf. Access: 23 aug. 2025.

[68] [free translation] "A determinação pelas SSOs do conjunto de patentes que será considerado essencial e, portanto, adotado por todos os produtores como padrão para a produção de um determinado bem pode implicar nos seguintes problemas: • Obsolescência da inovação ou atraso (delay) da evolução dos padrões vigentes em decorrência da necessidade de intervenção de SSO para a revisão e substituição desses padrões; e • Dependência do consumidor às tecnologias estipuladas pelas SSOs (aprisionamento). Como consequência do efeito lock -in, os consumidores finais ficam sem alternativa de consumo até que novo comitê seja instituído pelas SSOs para que um novo padrão seja estabelecido." – CONSELHO ADMINISTRATIVO DE DEFESA ECONÔMICA (CADE). Contribuições do CADE sobre patentes essenciais. Brasília: CADE, 2020. Available at: https://cdn.cade.gov.br/Portal/centrais-de-conteudo/publicacoes/contribuicoes-do-cade/Contribuições-do-Cade-Patentes-Essenciais.pdf. Access: 23 aug. 2025.

[69] HILLEBRAND, Friedhelm. Expert Report on behalf of Nokia Corporation. Nokia Corp. v. Qualcomm Inc., No. 2330-VCS, Court of Chancery of the State of Delaware, 22 maio 2008

meaning that an injunction on a single SEP can cut off access to the entire technical stack required for compliance.

(ii) **Network lock-in** emerges once a standard achieves market dominance: legacy alternatives disappear, and firms seeking to participate in that ecosystem have no commercially meaningful substitute (as illustrated by the convergence of GSM and CDMA into today's unified 5G architecture).

(iii) **Product lock-in** occurs at the firm level after substantial investments have been sunk into bringing a standardized product to market – R&D, hardware redesign, certification cycles, tooling, supply-chain integration, and commercial commitments – making deviation or redesign prohibitively costly.

Together, these three layers of lock-in amplify implementer dependence and transform the threat of exclusion into a powerful source of bargaining leverage for SEP holders because, as a result, they amplify the leverage provided by excluding a company from practicing a patented technology. Unlike non-essential patents, where the threat of substitution disciplines price, market discipline is weakened for SEPs. That is why economic literature and SDO policies rely on FRAND commitments as an institutional safeguard to rebalance exclusivity and access. In short, lock-in explains why implementer vulnerability is systemic – not a mere bargaining contingency – and why seemingly neutral remedies, like injunctions, can dramatically shift the bargaining frontier. As a result of the dependence, the hold-up problem arises.

Hold-up. This refers to the opportunistic appropriation of value in situations where, after the counterparty has made irreversible investments, one party exploits the resulting dependency. It is a classic problem in the economics of contracts: once resources are committed, the investing party becomes vulnerable to additional demands that were absent in the initial negotiation. The improved bargaining position of the patent holder does not stem from efficiency gains or innovation, but from the temporal asymmetry between the decision to invest and the later exercise of bargaining power.

While not exclusive to SEPs, the problem is especially acute in this context: under the lock-in created by declaring a patent essential to a standard, the holder has strong incentives to engage in hold-up. Once a technology is embedded in a standard, companies adopting it have no viable technical alternatives and become structurally dependent. Investments in R&D, infrastructure, and supply chains are made on the assumption that access to the technology will be available on reasonable terms. After those irreversible commitments, the SEP holder can leverage blocking power to impose licensing conditions more onerous than those that would have been accepted in a competitive *ex ante* environment.

> "There can be a risk of patent-hold up when specific technology is locked into the standard and its holder gains market power. [...] In the licensing market where licensors and licensees interact under a licensing agreement, there is concurrently asymmetric information between licensors and licensees. In detail, licensors hold private information about their technology and

> do not reveal it to licensees until the negotiations. Thus, licensees are the less informed parties in the licensing market.".[70]

> "One of the aims of the FRAND commitment is to prevent something called 'hold-up'. A 'hold-up' refers to a situation where a SEP holder exploits their position and charges excessively high royalties, and the licensee believes they have no choice but to pay. Without a FRAND commitment, and the SEP holder not complying with that commitment, the SEP holder may have a strong bargaining power with respect to potential licensees.".[71]

It is for this reason that FRAND commitments were conceived as institutional safeguards, designed to mitigate abusive practices. The core issue lies in the imbalance of power: technical essentiality transforms patent exclusivity into a potential instrument of economic coercion.[72] The practice of seeking injunctions in SEP litigation is a direct manifestation of this dynamic. A holder can pursue urgent measures–such as suspending the commercialization of standardized products–to expand bargaining leverage and pressure the implementer into accepting terms above the FRAND threshold. The threat of immediate market exclusion, even before a final decision on the merits, amplifies hold-up by heightening the implementer's vulnerability. In these circumstances, an injunction ceases to function as a legitimate tool to protect rights and instead becomes a strategic weapon–underscoring the need for strict criteria governing its issuance:

> "The threat that a patent holder will obtain an injunction that will force the downstream producer to pull its product from the market can be very powerful. These threats can greatly affect licensing negotiations, especially in cases where the injunction is based on a patent covering one small component of a complex, profitable, and popular product. Injunction threats often involve a strong element of holdup in the common circumstance in which the defendant has already invested heavily to design, manufacture, market, and sell the product with the allegedly infringing feature. As we show below, the threat of an injunction can enable a patent holder to negotiate royalties far in excess of the patent holder's true economic contribution. Such royalty overcharges act as a tax on new products incorporating the patented technology, thereby impeding rather than promoting innovation.".[73]

[70] ÖZMEN, Gülfem. Standard essential patents and FRAND commitments: legal and economic perspectives. 2021. Master's Thesis (Mestrado em Direito e Economia) – LUT University, Lappeenranta, 2021. Available at: https://lutpub.lut.fi/bitstream/handle/10024/164186/Gülfem_Öz%20men_Thesis.pdf?sequence=1&isAllowed=y. Access: 23 aug. 2025

[71] GOV.UK. Standard essential patent licensing. Londres: UK Government, 2024. Available at: https://www.gov.uk/guidance/standard-essential-patent-licensing#standard-essential-patent-licensing. Access: 23 aug. 2025

[72] GOV UK, 2024. Available at: https://www.gov.uk/guidance/standard-essential-patent-licensing#standard-essential-patent-licensing. Access: 23 aug. 2025

[73] LEMLEY, Mark A.; SHAPIRO, Carl. Patent Holdup and Royalty Stacking. Texas Law Review, v. 85, p. 1991-2049, 2007. Available at: https://ssrn.com/abstract=923468

In modern standardized markets, this risk is further amplified by the fragmentation of SEP ownership and the resulting higher likelihood of royalty stacking, as previously discussed:

> "Injunction threats often involve a strong element of holdup in the common circumstance in which the defendant has already invested heavily to design, manufacture, market, and sell the product with the allegedly infringing feature. As we show below, the threat of an injunction can enable a patent holder to negotiate royalties far in excess of the patent holder's true economic contribution. Such royalty over-charges act as a tax on new products incorporating the patented technology, thereby impeding rather than promoting innovation. [...] As a matter of simple arithmetic, royalty stacking magnifies the problems associated with injunction threats and holdup, and greatly so if many patents read on the same product. In this key sense, the problems of injunction threats and royalty stacking are intertwined.".[74]

Essentially, hold-up becomes systemic. This occurs for two main reasons. First, there is typically no assessment of the aggregate reasonableness of royalties. As a result, implementers may simultaneously face multiple risks of injunctions and overlapping layers of financial pressure. Second, dispersed ownership creates aligned incentives for strategic litigation. Because each holder anticipates that others will also assert claims against the same implementer, each has an additional incentive to seek injunctions as a tool for individual value maximization – even if the aggregate outcome becomes economically unsustainable for the supply chain.

The escalation mechanism of hold-up can be summarized as follows: where ownership is fragmented, "blocking points" multiply, and with them, opportunities for opportunistic capture. Once an implementer has already conceded in earlier negotiations to avoid or lift injunctions, new holders tend to anchor their demands at that exceptional level rather than on the metric of incremental contribution. This procedural path dependence weakens the disciplining function of the FRAND commitment and increases the likelihood of supra-FRAND outcomes, especially where essentiality determinations and transparency on comparable licenses are limited. Thus, while the threat–or granting–of an injunction by a single holder already shifts bargaining dynamics, the prospect of sequential injunctions from multiple holders compounds the asymmetry, as the implementer faces repeated risks of production and distribution shutdowns.[75]

In contexts such as 4G/5G, video codecs, or IoT–where SEP density is high–this aggregation of procedural risks becomes a lever for supra-FRAND pricing, even when each individual patent's marginal contribution is small. This coercive power is further reinforced by the opacity of the licensing market: assessing what is "fair and reasonable" depends on typically confidential comparable agreements, while calculating the incremental contribution of the

[74] LEMLEY, Mark A.; SHAPIRO, Carl. Patent Holdup and Royalty Stacking. Texas Law Review, v. 85, p. 1991-2049, 2007. Available at: https://ssrn.com/abstract=923468

[75] CHIEN, Colleen V.; LEMLEY, Mark A. Patent holdup, the ITC, and the public interest. Cornell Law Review, Ithaca, v. 98, n. 1, p. 1-48, Nov. 2012.

LEMLEY, Mark A.; SHAPIRO, Carl. Patent holdup and royalty stacking. Texas Law Review, Austin, v. 85, n. 7, p. 1991-2049, 2007

patented functionality to the end product is technically complex.[76] This opacity creates room for opportunistic interpretation and fuels the forum shopping already described through ASIs, as parties seek jurisdictions where such lack of transparency favors SEP holders.

Opacity also facilitates strategic selection and construction of 'comparables'[77]. A common tactic is to secure early licenses from smaller implementers at the published rate. SEP holders may "seed" comparables by first targeting smaller implementers. Smaller firms often lack the scale and resources to litigate[78], and because their aggregate use of the standard is limited, paying the licensor's published rate may be economically tolerable – and typically far cheaper than defending an injunction threat[79]. Once a handful of such licenses are obtained at the published rate, the SEP holder can later assert them as "comparables" [80] against large implementers. This practice effectively transforms comparable licenses into strategic instruments for entrenching supra-FRAND rates[81], leading to levels of remuneration that exceed the technology's social value. By doing so, it systematically biases the FRAND benchmark upward and constrains the scope for ex ante competitive pricing.

It is in this environment – lock-in creating vulnerability and hold-up exploiting it – that abusive licensing agreements thrive.

Abusive licensing agreements. Implementers, with no viable technological alternatives and facing the risk of injunction-driven shutdowns, become highly susceptible to accepting supra-FRAND terms just to keep operations running.[82] This imbalance stems from asymmetries in costs and risks that fall disproportionately on implementers. In principle, licensing should align incentives–adequately rewarding the holder while enabling efficient access to technology. In practice, however, because implementers are locked in, injunctions become the mechanism that turns hold-up into reality: if the implementer refuses, the injunction materializes the hold up.

[76] NESTA. The impact of standardization and standards on innovation. 2013. Available at: https://media.nesta.org.uk/documents/the_impact_of_standardization_and_standards_on_innovation.pdf. Access: 23 aug. 2025.

[77] LAURIAT, Barbara. "Pay no attention to the comparable behind the curtain!": the harms of opacity in standard essential patent licensing. Berkeley Technology Law Journal, vol. 38, Special Issue, 2023 (forthcoming). Available at: https://papers.ssrn.com/sol3/papers.cfm?abstract_id=4610939. Access: Feb. 5, 2026.

[78] WORLD INTELLECTUAL PROPERTY ORGANIZATION (WIPO). FRAND licensing for SMEs: dancing with elephants in the world of SEPs. WIPO Magazine, Geneva, Jan. 29, 2026. Available at: https://www.wipo.int/en/web/wipo-magazine/articles/frand-licensing-for-smes-dancing-with-elephants-in-the-world-of-seps-88126. Access: Feb. 5, 2026.

[79] "The PAE business model is based on the presumption that in many cases, targeted firms will settle out of court rather than take the risky, time-consuming course of allowing a court to decide if infringement has occurred" – UNITED STATES. Executive Office of the President. Patent assertion and U.S. innovation. Washington, DC: Executive Office of the President, June 2013. Available at: https://www.whitehouse.gov/sites/default/files/docs/patent_report.pdf. Accessed on: Feb. 5, 2026.

[80] LAURIAT, Barbara. "Pay no attention to the comparable behind the curtain!": the harms of opacity in standard essential patent licensing. Berkeley Technology Law Journal, v. 38, Special Issue, 2023 (forthcoming). Disponível em: https://papers.ssrn.com/sol3/papers.cfm?abstract_id=4610939. Acesso em: 5 fev. 2026.

[81] AMERICAN BAR ASSOCIATION. Antitrust Law Section. The inherent hold-up value in standard essential patents. ABA Source, Oct. 2024. Available at: https://www.americanbar.org/groups/antitrust_law/resources/source/2024-oct/inherent-hold-up-value/. Access: Feb. 5, 2026.

[82] GOV.UK. Standard essential patent licensing. Londres: UK Government, 2024. Available at: https://www.gov.uk/guidance/standard-essential-patent-licensing#standard-essential-patent-licensing. Access: 23 aug. 2025

WORLD INTELLECTUAL PROPERTY ORGANIZATION (WIPO). WIPO ADR options for FRAND disputes: management and resolution. Genebra: WIPO, 2022. Available at: https://www.wipo.int/export/sites/www/amc/en/docs/2022/wipo_adr_options_for_frand_disputes_management_resolution.pdf. Access: 23 aug. 2025

> "...The patentee can credibly seek far greater royalties, very likely backed up with the threat of shutting down the manufacturer if the Court indeed finds the patent valid and infringed and grants injunctive relief. ... In other words, for all of these reasons, the manufacturer is highly susceptible to hold-up by the patentee. ... The hold-up problem is worst in industries where hundreds if not thousands of patents, some already issued, others pending, can potentially read on a given product. In these industries, the danger that a manufacturer will 'step on a land mine' is all too real. The result will be that some companies avoid the mine field altogether, i.e., refrain from introducing certain products for fear of hold-up.".[83]

Refusal to license. Refusal to license completes the picture as the extreme expression of the same logic. If lock-in creates dependence and hold-up seeks to capture it, refusal to license transforms the right of exclusion into an absolute barrier to technology diffusion. In standardized markets, refusing to license is not just a private decision: it undermines the functioning of interoperability networks and converts essentiality into a blocking tool. Conceptually, refusal collides with the legitimate expectation created by the FRAND commitment. The characterization of such conduct in the context of injunction requests by SEP holders is explained by CADE:

> "As a general rule, the holder of intellectual property has the unilateral right to decide not to use or license that intellectual property. However, when the duty to license is imposed in certain cases, that basic right is limited. The fact is that technologies deemed essential must be licensed on fair, non-discriminatory terms and against reasonable royalties, in line with the FRAND model. Otherwise, the holders of such technologies could exploit monopoly power to impose unfair and discriminatory licensing terms, harming competition and stifling innovation, while strengthening their own dominant market position.".[84]

In other words, by using legitimate legal instruments solely to circumvent the FRAND commitment, an SEP holder is effectively refusing to license on agreed terms and abusing a dominant position. Under royalty stacking conditions driven by fragmentation, refusal to license–or its indirect materialization through injunction requests–ceases to be an isolated

[83] GERADIN, Damien. FRAND commitments and EC competition law: a reply to Philippe Chappatte. SSRN Electronic Journal, 2011. Available at: https://papers.ssrn.com/sol3/papers.cfm?abstract_id=273550. Access: 23 aug. 2025.

[84] [free translation] "De um modo geral, o titular de uma propriedade intelectual tem o direito unilateral de decidir não usar ou licenciar sua propriedade intelectual. No entanto, ao se impor o dever de licenciar em alguns casos, esse direito básico é violado. Fato é que tecnologias consideradas essenciais precisam ser licenciadas de forma justa, não discriminatória e mediante pagamento de royalties razoáveis, observando o modelo FRAND. De outra forma, os titulares dessas tecnologias poderiam usar o poder do monopólio e impor termos de licenciamento injustos e discriminatórios, que prejudicariam a concorrência e o fomento à inovação, aumentando a sua própria posição dominante no mercado." – CONSELHO ADMINISTRATIVO DE DEFESA ECONÔMICA (CADE). Contribuições do CADE sobre patentes essenciais. Brasília: CADE, 2020. Available at: https://cdn.cade.gov.br/Portal/centrais-de-conteudo/publicacoes/contribuicoes-do-cade/Contribuições-do-Cade-Patentes-Essenciais.pdf. Access: 23 aug. 2025.

event. Its aggregate effect is equivalent to a coordinated refusal, with consequences that cascade across the entire value chain:

> "In a common patent infringement case, for example, the patent covers a small part of a larger product, and the defendant infringes it inadvertently. If an interoperability standard covers the infringing feature, removing the feature may disable the product. Eliminating a big product from the market because of a small patent harms consumers, and blocking a large number of lawful components and features from the market along with the infringing one distorts competition. In another common situation, a patent holder sues a large number of companies, threatening to hobble an entire industry. An injunction would exclude many participants from the marketplace and dramatically reduce competition. In each of these scenarios, the harm to consumers and competition from an exclusion order is greater than the contribution made by the individual infringing component. As carmaker Ford put it: 'By the time a manufacturer enters production, the company has spent great sums of money on design integration, tooling, and other investments to incorporate a particular technology. The technology itself may not be valuable–it may be trivial–but it is very expensive to change it after the investments have been made.'".[85]

The synthesis of this dynamic is the following: the lock-in created by the essential nature of SEPs generates the structural dependence that removes from implementers the ability to migrate to viable technical alternatives. Hold-up exploits that dependence through ex post threats–including injunctions–replacing competitive pricing with urgency-based pricing tied to the risk of exclusion. Supra-FRAND licensing offers give legal form to this capture, producing effects that extend beyond the bilateral relationship and impact the entire value chain. In practice, this amounts to a refusal to license, as it blocks access to an essential input and undermines the collective function of standardization.

Within this dynamic, injunctions act as catalysts, converting regulatory uncertainty into immediate bargaining power that multiplies as the number of SEPs for a given standard increases and royalty stacking takes hold. This is why competition analysis of SEP injunction requests cannot be transplanted from the framework applied to ordinary patents: it must start from the hybrid nature of SEPs and their FRAND commitments. Otherwise, procedural tools end up legitimizing the structural distortion of standardized markets.

Recognizing that injunctions sought by SEP holders can create material anticompetitive effects–not merely reflect the legitimate exercise of IP rights–shifts the discussion to how differentiated treatment should be structured. At this point, case law and doctrine reveal a clash between two approaches: one that emphasizes reconstructing the parties' behavior during negotiations, and another that focuses on the economic and competitive impacts of the measures. In the SEP context, the latter has proven more effective in terms of outcomes. Given this paper's objective of proposing pathways to strengthen legal certainty in Brazil, the next section focuses on detailing this second approach.

[85] CHIEN, Colleen V.; LEMLEY, Mark A. Patent holdup, the ITC, and the public interest. Cornell Law Review, Ithaca, v. 98, n. 1, p. 1-48, Nov. 2012.

2.2.2 International Case Law: Paradigmatic Precedents

The overarching message is clear: analysis must be grounded in the hybrid logic of SEPs, where patent exclusivity coexists with a commitment to access.

In practice, the framing of injunction requests in SEP disputes as abusive has taken shape through landmark decisions by competition authorities and courts worldwide. These precedents highlight not only the theoretical underpinnings but also the criteria guiding assessments of when exclusionary relief represents a legitimate exercise of IP rights–or, conversely, constitutes anticompetitive abuse. The evolution of case law can be divided into two main strands. First, consensus that SEPs require differentiated treatment compared to ordinary patents. Second, divergence over how such differentiated treatment should be implemented.

On the first point–addressed here briefly, with details developed later–case law shows that injunction requests involving SEPs are not assessed under the same framework as ordinary patents. Instead, they are conditional on compliance with the FRAND commitment, with courts systematically considering implementers' defenses based on allegations of abusive conduct by SEP holders. Courts and competition authorities in Europe, the United States, and across Asia have already recognized that essentiality alters the competitive logic and therefore requires its own parameters in injunction analysis.[86]

In the European Union, this consensus emerged in cases such as Samsung (2014)[87] and Motorola (2014) [88], where it was recognized that injunction requests by SEP holders against implementers could constitute abuse of dominance–precisely because exclusion in standardized markets has consequences different from those associated with ordinary patents.[89] This logic was cemented by the Court of Justice of the European Union (CJEU) in Huawei v. ZTE (2015) [90], which established that injunctions involving SEPs must follow a specific procedural framework tied to FRAND compliance in order to be deemed legitimate.

In the United States, the starting point was eBay v. MercExchange (2006). Although not a SEP case, the Supreme Court's ruling was pivotal because it rejected automatic injunctions and established that courts must first assess the adequacy of monetary remedies under traditional equitable principles. This shift became the foundation for how U.S. courts later approached injunctions in SEP disputes. The Federal Circuit's decision in Motorola v. Apple

[86] CONSELHO ADMINISTRATIVO DE DEFESA ECONÔMICA (CADE). Contribuições do CADE sobre patentes essenciais. Brasília: CADE, 2020. Available at: https://cdn.cade.gov.br/Portal/centrais-de-conteudo/publicacoes/contribuicoes-do-cade/Contribuições-do-Cade-Patentes-Essenciais.pdf. Access: 23 aug. 2025.

[87] (European Commission, DG Competition, Decision of 29 April 2014, Case AT.39939 – Samsung Electronics Co., Ltd.

[88] (European Commission, DG Competition, Decision of 29 April 2014, Case AT.39985 – Motorola Mobility Inc.)

[89] CONSELHO ADMINISTRATIVO DE DEFESA ECONÔMICA (CADE). Contribuições do CADE sobre patentes essenciais. Brasília: CADE, 2020. Available at: https://cdn.cade.gov.br/Portal/centrais-de-conteudo/publicacoes/contribuicoes-do-cade/Contribuições-do-Cade-Patentes-Essenciais.pdf. Access: 23 aug. 2025.

[90] (Court of Justice of the European Union (CJEU), Case C-170/13, Judgment of 16 July 2015, Huawei Technologies Co. Ltd v. ZTE Corp., ZTE Deutschland GmbH)

explicitly applied eBay to the SEP context, confirming that when monetary compensation is sufficient, injunctive relief is generally inappropriate – an approach that has since shaped the proportionality analysis in SEP litigation.[91]

Several Asian jurisdictions have also codified guidelines through case law and regulatory practice, including Japan, China, and South Korea.[92] In China, the State Administration for Market Regulation (SAMR) issued an Antitrust Guide for SEPs in 2024, explicitly aimed at preventing anticompetitive abuses and ensuring that SEPs remain accessible inputs.[93] This guidance builds on the country's earlier enforcement experience – most notably the landmark investigation by the National Development and Reform Commission (NDRC) into Qualcomm's licensing of its 3G and 4G standard-essential patents.[94] In that case, NDRC found that Qualcomm leveraged the indispensability of its SEPs to impose licensing practices that distorted competition[95].

The authority concluded that Qualcomm required implementers to license its Chinese wireless SEPs as part of a broader mandatory portfolio, which also included expired patents, non-SEPs, foreign patents, and technologies unrelated to the wireless standards. This bundling deprived implementers of the ability to challenge weaker patents and effectively forced payment for rights without meaningful coverage in China. NDRC further found that Qualcomm imposed royalty-free grant-backs and conditioned access to essential baseband chips on "no-challenge" clauses and other restrictive terms – conduct that amplified the leverage stemming from SEP essentiality[96] [97].

According to NDRC, these practices collectively inflated effective royalty burdens, restricted competition, and impeded innovation in violation of the Anti-Monopoly Law. The resulting settlement imposed structural corrective measures directly targeted at rebalancing SEP licensing.

[91] LANDAU, Joshua. Written Testimony of Joshua Landau for the Hearing on the RESTORE Patent Rights Act. Statement before the Committee on the Judiciary, Subcommittee on Intellectual Property, United States Senate, Washington, D.C., 18 dez. 2024. Available at: https://www.patentprogress.org/2019/08/01/much-ado-about-injunctions/. Access: 22 set. 20;

LANDAU, Joshua. 2019-09-10 JSL Testimony for Hearing on STRONGER Patents Act. Statement before the Committee on the Judiciary, Subcommittee on Intellectual Property, United States Senate, Washington, D.C., 11 set. 2019. Available at: https://ccianet.org/wp-content/uploads/2019/09/2019-09-10-JSL-Testimony-for-Hearing-on-STRONGER.pdf. Access: 22 set. 2025.

[92] The United States and the European Union attempted to propose more consolidated guidelines, but internal debates resulted in withdrawal or revocation.

[93] CHINA IP LAW UPDATE. China's State Administration for Market Regulation releases anti-monopoly guidelines in the field of standard essential patents. 21 nov. 2024. Available at: https://www.chinaiplawupdate.com/2024/11/chinas-state-administration-for-market-regulation-releases-anti-monopoly-guidelines-in-the-field-of-standard-essential-patents/. Access: 23 aug. 2025.

[94] ZHANG, Yu; ZHONG, Chun. Decoding China's SEP Antitrust Guidelines: key provisions, challenges, and EU comparisons. Journal of European Competition Law & Practice, Oxford, v. 16, n. 5, p. 314-320, maio 2025. DOI: 10.1093/jeclap/lpaf044

[95] LI, Yan Bing. Antitrust Correction for Qualcomm's SEPs Package Licensing and Its Flexibility in China. IIC - International Review of Intellectual Property and Competition Law, Munich, v. 47, n. 3, p. 336-351, maio 2016. DOI: 10.1007/s40319-016-0465-x

[96] ZHANG, Yu; ZHONG, Chun. Decoding China's SEP Antitrust Guidelines: key provisions, challenges, and EU comparisons. Journal of European Competition Law & Practice, Oxford, v. 16, n. 5, p. 314-320, maio 2025. DOI: 10.1093/jeclap/lpaf044

[97] LI, Yan Bing. Antitrust Correction for Qualcomm's SEPs Package Licensing and Its Flexibility in China. IIC - International Review of Intellectual Property and Competition Law, Munich, v. 47, n. 3, p. 336-351, maio 2016. DOI: 10.1007/s40319-016-0465-x

Qualcomm was required to (i) adopt a reduced royalty base for devices sold in China, (ii) provide patent lists and cease charging for expired patents, (iii) eliminate grant-back requirements, (iv) offer separate licensing of wireless SEPs instead of mandatory portfolio bundles, and (v) discontinue tying chip sales to acceptance of restrictive license terms.

These measures illustrate how antitrust enforcement can play a stabilizing role in SEP-based markets by ensuring that essential technologies remain accessible on fair terms, preventing portfolio leverage from undermining FRAND commitments, and preserving standardization as a mechanism for innovation rather than exclusion[98].

Japan followed a similar path: the Ministry of Economy, Trade and Industry (METI) published a SEP-specific guide in 2022[99] to complement the Japan Patent Office (JPO)[100] rules, with the goal of enhancing predictability and transparency. In South Korea, the Korea Fair Trade Commission (KFTC) has since 2019 incorporated explicit guidance on SEPs into its Review Guidelines on Unfair Exercise of Intellectual Property Rights.[101] This institutional stance aligns with – and is partly informed by – the region's earlier enforcement experience involving the same company at the center of the Chinese case: Qualcomm. In its landmark decision, the KFTC found that Qualcomm leveraged the indispensability of its CDMA SEPs to impose discriminatory royalty structures and conditional rebates that disadvantaged rival chipmakers. The Seoul High Court later upheld the core of this assessment, emphasizing that such conduct violated FRAND commitments and produced exclusionary effects in downstream modem-chip markets. Together, the guidelines and the Qualcomm decision illustrate South Korea's recognition that SEP licensing requires active competition oversight to safeguard fair access to standardized technologies[102]. So, the recognition that SEPs require differentiated treatment is an international point of convergence.

The Brazilian framework diverges from this consensus–and should move toward alignment. The area that calls for deeper exploration is the second strand: the debate over the design and implementation of such criteria:

> "Eight years after the European ruling in Huawei, the debate on the role of antitrust in standard essential patents (SEPs) litigation shows no sign of abating."[103]

[98] ZHANG, Yu; ZHONG, Chun. Decoding China's SEP Antitrust Guidelines: key provisions, challenges, and EU comparisons. Journal of European Competition Law & Practice, Oxford, v. 16, n. 5, p. 314-320, maio 2025. DOI: 10.1093/jeclap/lpaf044

[99] MINISTRY OF ECONOMY, TRADE AND INDUSTRY (METI). Good faith negotiation guidelines for SEP licenses. Tóquio: METI, 2022. Available at: https://www.meti.go.jp/policy/economy/chizai/sep_license/good-faith-negotiation-guidelines-for-SEPlicenses-en.pdf. Access: 23 aug. 2025.

[100] JAPAN PATENT OFFICE (JPO). Guide to licensing negotiations involving standard essential patents. Tóquio: JPO, 2022. Available at: https://www.jpo.go.jp/e/system/laws/rule/guideline/patent/document/rev-seps-tebiki/guide-seps-en.pdf. Access: 23 aug. 2025.

[101] KOREA FAIR TRADE COMMISSION (KFTC). Review guidelines on unfair exercise of intellectual property rights (IPRs). Seul: KFTC, 2019. Available at: https://www.ftc.go.kr/eng/selectBbsNttView.do?key=563&bordCd=821&nttSn=13344. Access: 23 aug. 2025.

[102] KIM, Yoonhee; YANG, Hui-Jin. A Brief Overview of Qualcomm v. Korea Fair Trade Commission. CPI Antitrust Chronicle, v. 1, p. 1–8, mar. 2015. Disponível em: file:///mnt/data/KimYangMar-151.pdf. Acesso em: 24 nov. 2025.

[103] SIVENSKAYA, Anna; MALKOV, Egor; RUDYAK, Dmitry. SEP licensing and competition policy in the BRICS countries: China, India, Russia. Queen Mary Journal of Intellectual Property, v. 14, n. 1, p. 67–95, 2024. Available at: https://dx.doi.org/10.4337/qmjip.2024.01.04. Access: 23 aug. 2025.

At its core, the debate over how SEPs should be assessed has evolved into two distinct approaches: a European one–though with variations across jurisdictions–and a U.S. one. The difference lies in the framework: Europe focuses on procedural scrutiny of negotiation conduct, while the U.S. emphasizes the substantive economic effects. Both perspectives matter for drawing lessons for Brazil.[104]

On the European side, the turning points were the Samsung (2014) and Motorola (2014) cases. Beyond recognizing that SEP disputes require differentiated treatment, they set the foundation for the European Commission and the CJEU to anchor decisions in the parties' negotiation behavior. This approach was ultimately confirmed in Huawei v. ZTE (2015), which became a landmark precisely because the CJEU laid out a step-by-step roadmap tying the legitimacy of injunctions to compliance with FRAND obligations.[105]

The case emerged to clarify whether the standards imposed by German jurisprudence –most notably Orange Book (2009)[106] – were too burdensome for implementers. Orange Book had held that an implementer could only resist an injunction if it (i) made an unconditional license offer on terms that could not reasonably be refused, and (ii) demonstrated "licensee-like" conduct, such as depositing royalties in escrow.

Uncertainty over whether these conditions were excessive led the Düsseldorf court to escalate the matter to the CJEU, which recalibrated the criteria. The Court ruled that an injunction could not be granted if an implementer showed clear willingness to negotiate on FRAND terms, responded diligently to offers, and tabled counterproposals. In those circumstances, exclusion would amount to an abuse of dominance, as the injunction would be nothing more than leverage for supra-FRAND terms. With this, the CJEU transformed injunction analysis into a procedural test tied to good-faith conduct.[107] In Huawei v. ZTE, these requirements were explicitly validated, and the CJEU transformed injunction analysis into a procedural test tied to good-faith conduct.[108]

In 2020, the Bundesgerichtshof (BGH) in Einwand I and Einwand II filled the gaps left by the CJEU's Huawei v. ZTE ruling. While reaffirming the Orange Book precedent, the BGH redefined its boundaries. Injunctions, recalls, or product destruction were considered abusive only if (i) the implementer made an unconditional FRAND license offer that could not reasonably

[104] LANDAU, Joshua. Written Testimony of Joshua Landau for the Hearing on the RESTORE Patent Rights Act. Statement before the Committee on the Judiciary, Subcommittee on Intellectual Property, United States Senate, Washington, D.C., 18 dez. 2024. Available at: https://www.patentprogress.org/2019/08/01/much-ado-about-injunctions/. Access: 22 set. 20;

LANDAU, Joshua. 2019-09-10 JSL Testimony for Hearing on STRONGER Patents Act. Statement before the Committee on the Judiciary, Subcommittee on Intellectual Property, United States Senate, Washington, D.C., 11 set. 2019. Available at: https://ccianet.org/wp-content/uploads/2019/09/2019-09-10-JSL-Testimony-for-Hearing-on-STRONGER.pdf. Access: 22 set. 2025.

[105] (Court of Justice of the European Union (CJEU), Case C-170/13, Judgment of 16 July 2015, Huawei Technologies Co. Ltd v. ZTE Corp., ZTE Deutschland GmbH)

[106] Bundesgerichtshof (Federal Court of Justice, Germany), Judgment of 6 May 2009, Case KZR 39/06 – Orange-Book-Standard

[107] CONSELHO ADMINISTRATIVO DE DEFESA ECONÔMICA (CADE). Contribuições do CADE sobre patentes essenciais. Brasília: CADE, 2020. Available at: https://cdn.cade.gov.br/Portal/centrais-de-conteudo/publicacoes/contribuicoes-do-cade/Contribuições-do-Cade-Patentes-Essenciais.pdf. Access: 23 aug. 2025.

[108] (Court of Justice of the European Union (CJEU), Case C-170/13, Judgment of 16 July 2015, Huawei Technologies Co. Ltd v. ZTE Corp., ZTE Deutschland GmbH)

be refused, and (ii) the SEP holder failed to take the steps necessary to allow a willing implementer to finalize a FRAND agreement.[109]

In Einwand II, the court pushed the reasoning further. It stressed that abuse does not stem merely from burdensome or discriminatory contract terms, but from categorically denying access to an essential input or insisting on manifestly unreasonable terms without any intention of adjusting them during negotiations. With this, German courts reinforced the idea that FRAND balance is preserved only when both parties act proactively and in good faith. Injunctions lose legitimacy when used as structural barriers in real negotiations.[110]

Despite aiming to balance interests, this approach has had unintended effects. By shifting the focus from whether an injunction is the right legal remedy to whether both sides have shown subjective "good faith," it has sparked additional disputes over whether parties have "followed the script." In practice, this often favors SEP holders with greater litigation experience and stronger market leverage. The Huawei framework has been widely criticized for prolonging disputes, particularly because of the difficulty in defining what counts as "willingness to negotiate.".[111]

The BGH decisions also raised the bar excessively for implementers to prove good faith. Typically, when injunctions are granted and competition defenses are rejected, the rationale is that the implementer was "unwilling to negotiate." This line of reasoning already appeared in earlier German disputes, such as Philips v. Archos, where Archos's abuse-of-dominance defense was dismissed after findings that it had itself obstructed negotiations[112], and Philips v. Wiko, which followed a similar pattern[113]. The BGH's position therefore entrenched a rigid

[109] SIVENSKAYA, Anna; MALKOV, Egor; RUDYAK, Dmitry. SEP licensing and competition policy in the BRICS countries: China, India, Russia. Queen Mary Journal of Intellectual Property, v. 14, n. 1, p. 67–95, 2024. Available at: https://dx.doi.org/10.4337/qmjip.2024.01.04. Access: 23 aug. 2025.

[110] "Less than five years after the Huawei ruling, in 2020 the BGH had the chance to illustrate its view of the competition law defence. Indeed, in twin cases published in quick succession (Einwand I33 and Einwand II34), the Court addressed, several of the aforementioned gaps left open by the CJEU which intensively engaged the German courts. In Einwand I the BGH provided a two-pronged concept of abuse which was later further clarified in Einwand II. Expressly recalling the Orange Book Standard precedent, the Court held that patent owners' claims for injunction, destruction, and recall of products constitute an abuse of dominant position if the implementer makes an unconditional offer to conclude a licence agreement on terms which the patent holder may not refuse without infringing the prohibition of abuse. According to the second prong, it is also abusive to assert these claims if, on the one hand, the infringer did not yet agree to conclude a licence agreement on reasonable conditions but, on the other, the patent holder did not undertake the necessary steps to enable the willing implementer to apply for a FRAND licence. This second path is intended to open the way towards negotiations under the Huawei framework. Einwand II broadened the scope of this reasoning adding that in both cases the action is abusive only because the infringer willing to apply for a licence has a claim that the patent proprietor contractually allows it to use the protected technical teaching on FRAND terms." – SIVENSKAYA, Anna; MALKOV, Egor; RUDYAK, Dmitry. SEP licensing and competition policy in the BRICS countries: China, India, Russia. Queen Mary Journal of Intellectual Property, v. 14, n. 1, p. 67–95, 2024. Available at: https://dx.doi.org/10.4337/qmjip.2024.01.04. Access: 23 aug. 2025.

[111] "As the Huawei test revolves around the willingness of the licensee, the attention devoted by German case law to the implementer's obligations is consistent with the principles set out by the CJEU. Nonetheless, because of the natural difficulties encountered in the concrete application of the willingness criterion, its case-by-case detection is still challenging, as proven by the decisions made by German lower courts." – SIVENSKAYA, Anna; MALKOV, Egor; RUDYAK, Dmitry. SEP licensing and competition policy in the BRICS countries: China, India, Russia. Queen Mary Journal of Intellectual Property, v. 14, n. 1, p. 67–95, 2024. Available at: https://dx.doi.org/10.4337/qmjip.2024.01.04. Access: 23 aug. 2025.

[112] District Court of The Hague (NL), 2017, Archos S.A. v. Koninklijke Philips N.V., ECLI:NL:RBDHA:2017:1025

[113] Court of Appeal of The Hague, 2019, Case No. 200.219.487/01 – Koninklijke Philips N.V. v. Wiko SAS

and subjective framework that works in favor of SEP holders when defining what counts as FRAND compliance.

So, even though Europe has recognized that SEPs require differentiated treatment, the evaluation model it adopted has taken an environment already marked by information asymmetry and subjectivity–naturally tilted toward patent holders–and made it worse by layering on even more subjective requirements that depend on information only one side controls. SEP holders consolidate knowledge from multiple licensing cases, while implementers typically have access only to their own agreements.[114] This imbalance opens the door to opportunistic interpretation and, as noted earlier, reinforces forum shopping through ASIs, as parties look for jurisdictions where this opacity plays to the advantage of SEP holders.

By contrast, the U.S. took a different path. The turning point came with the Supreme Court's eBay v. MercExchange (2006) decision, which overturned the long-standing practice of granting injunctions almost automatically and replaced it with a test focused not on the process that led to the request, but on the impact of granting the injunction itself.[115]

In that ruling, the Court held that injunctions must be assessed under the traditional principles of equity, rejecting any presumption of automatic relief. **It required cumulative proof of four elements. Evidence of irreparable harm that could not be adequately addressed by monetary damages. Inadequacy of monetary compensation as a sufficient remedy. Balancing of hardships to ensure that the burden on the implementer would not be disproportionate to the benefit gained by the patent holder. Consideration of the public interest, including the broader effects on competition, innovation, and consumer access.**[116]

These criteria became known as the eBay test, and their practical application significantly reshaped the dynamics of U.S. patent litigation. In z4 Technologies v. Microsoft (2006) and Voda v. Cordis Corp. (2007), courts denied injunctions after concluding that monetary damages were sufficient. The most prominent application of the eBay framework came in Apple v. Samsung (2012 and 2015), where–despite the intense rivalry between the companies–the injunction requests were denied due to the absence of proven irreparable harm. This reinforced the requirement of rigorous analysis and broke with the prior assumption of automatic injunctions. In contrast, TiVo v. EchoStar (2011) did grant an injunction, underscoring that the precedent did not eliminate injunctive relief altogether but introduced a meaningful filter distinguishing legitimate protection from measures used purely as negotiation leverage[117].

From an economic standpoint, the consequences of eBay have been the subject of extensive empirical study, examining its impact on innovation, litigation, and welfare. By rejecting

[114] NESTA. The impact of standardization and standards on innovation. 2013. Available at: https://media.nesta.org.uk/documents/the_impact_of_standardization_and_standards_on_innovation.pdf. Access: 23 aug. 2025.

[115] (Court of Justice of the European Union (CJEU), Case C-170/13, Judgment of 16 July 2015, Huawei Technologies Co. Ltd v. ZTE Corp., ZTE Deutschland GmbH)

[116] UNITED STATES OF AMERICA. Supreme Court of the United States. eBay Inc. v. MercExchange, L.L.C., 547 U.S. 388 (2006). Washington, D.C.: Supreme Court, 2006. Available at: https://supreme.justia.com/cases/federal/us/547/388/. Access: 22 set. 2025.

[117] SEAMAN, Christopher B. Permanent injunctions in patent litigation after eBay: an empirical study. Iowa Law Review, Iowa City, v. 101, n. 4, p. 1949-2017, 2016. Available at: https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2632834. Access: 22 set. 2025.

the near-automatic grant of permanent injunctions and requiring patentees to affirmatively demonstrate irreparable harm, the eBay decision materially reshaped the availability of injunctive relief. Even in disputes between direct competitors – where injunctions remain comparatively common – grant rates fell from pre-eBay levels approaching universality to roughly 75–80%, as courts now condition relief on concrete evidence of market harm, most notably loss of market share[118]. The impact has been even more pronounced for non-practicing entities and patent assertion entities, for whom eBay rendered injunctions an exceptional and increasingly non-credible remedy. Because such plaintiffs do not participate in downstream markets, they are generally unable to establish irreparable harm, leading to very high denial rates – often approaching or exceeding 75% overall and rising above 90% in contested cases[119].

This shift was not only procedural: it produced measurable effects across the innovation ecosystem. Econometric research shows that ICT firms increased R&D investment after the ruling.[120] Studies leveraging differential exposure to patent disputes found that firms more frequently involved in litigation not only directed more resources to R&D but also generated higher-value patents with greater citation probability.[121] Later research confirmed this positive effect on litigation-exposed firms, while noting that the aggregate impact on overall U.S. innovation was more limited.[122] Welfare analyses went further, estimating a net social efficiency gain of 3.32% – driven largely by the reduction of hold-up power and the resulting boost in innovative activity.[123] More recent empirical evidence reinforces this view: Helmers and Love show that eBay v. MercExchange significantly increased R&D investment among firms highly exposed to patent litigation, precisely because limiting presumptive injunctions weakened the leverage associated with exclusion threats. For the first time, SEP holders seeking injunctions as bargaining leverage faced real uncertainty[124].

Taken together, these findings illustrate the paradigm shift triggered by eBay: instead of merely redistributing private gains between holders and implementers, the decision delivered system-wide benefits–broader technology diffusion, lower barriers to entry, and higher-quality innovation. Crucially, these effects did not remain confined to ordinary patent disputes. By conditioning injunctive relief on a clear showing of irreparable harm and public interest, the

[118] SEAMAN, Christopher B. Permanent injunctions in patent litigation after eBay: an empirical study. Iowa Law Review, Iowa City, v. 101, n. 4, p. 1949-2017, 2016. Available at: https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2632834. Access: 22 set. 2025.

[119] CHIEN, Colleen V.; LEMLEY, Mark A. Patent holdup, the ITC, and the public interest. Cornell Law Review, Ithaca, v. 98, n. 1, p. 1-48, nov. 2012.

[120] LANDAU, Joshua. Written Testimony of Joshua Landau for the Hearing on the RESTORE Patent Rights Act. Statement before the Committee on the Judiciary, Subcommittee on Intellectual Property, United States Senate, Washington, D.C., 18 dez. 2024. Available at: https://www.patentprogress.org/2019/08/01/much-ado-about-injunctions/. Access: 22 set. 20;

[121] LANDAU, Joshua. 2019-09-10 JSL Testimony for Hearing on STRONGER Patents Act. Statement before the Committee on the Judiciary, Subcommittee on Intellectual Property, United States Senate, Washington, D.C., 11 set. 2019. Available at: https://ccianet.org/wp-content/uploads/2019/09/2019-09-10-JSL-Testimony-for-Hearing-on-STRONGER.pdf. Access: 22 set. 2025.

[122] LANDAU, Joshua. Written Testimony of Joshua Landau for the Hearing on the RESTORE Patent Rights Act. Statement before the Committee on the Judiciary, Subcommittee on Intellectual Property, United States Senate, Washington, D.C., 18 dez. 2024. Available at: https://www.patentprogress.org/2019/08/01/much-ado-about-injunctions/. Access: 22 set. 20;

[123] ANTILL, Samuel; et al. The Efficiency of Patent Litigation. Working Paper, p. 35-36, 24 maio 2024. Disponível em: https://www.hbs.edu/faculty/Pages/item.aspx?num=66129. Acesso em: 1 out. 2025.

[124] HELMERS, Christian; LOVE, Brian J. Patent Litigation Reforms and Innovation. 2024. Disponível em: </mnt/data/ssrn-4580645.pdf>. Acesso em: 24 nov. 2025.

eBay four-factor test became the analytical foundation for SEP cases in the United States. The Federal Circuit's decision in Motorola v. Apple expressly applied this framework to the SEP context, confirming that when monetary remedies are adequate, injunctions are generally inappropriate. This alignment between eBay's proportionality principles and SEP jurisprudence created a more predictable environment where hold-up strategies tied to exclusion threats were meaningfully discouraged.

This framework also introduced a natural calibration: non-practicing entities rarely succeed in obtaining injunctions because they cannot demonstrate irreparable harm, while operating companies can still secure injunctive relief when they can demonstrate they are practicing the patent exclusively. Courts thus began to differentiate cases based on tangible economic effects, reducing excessive costs for implementers without weakening legitimate patent protection, and limiting the abusive use of injunctions as a bargaining tool in standards-dependent markets.

In comparative perspective, Europe's approach shows clear limitations: the subjectivity of the "good faith" test and the burden of proof create legal uncertainty and, in practice, often tilt the balance toward SEP holders who use injunction threats strategically. The U.S. model, by contrast, grounds the analysis in transparent, measurable criteria tied to public interest, avoiding artificial evidentiary hurdles and producing more consistent outcomes–fewer abusive injunctions, greater stability of expectations, and stronger innovation incentives.

The comparison highlights that an approach focused on economic effects–rather than narrowly on the parties' conduct–is more effective in addressing hold-up risks in standardized markets. From that perspective, the U.S. framework stands out as a stronger reference point for SEP disputes: by restricting injunctions to exceptional circumstances, it ensures fair compensation for patent holders without turning the threat of exclusion into a bargaining prize.

Building on this international experience, attention turns to Brazil. In sharp contrast to global practice, Brazil remains one of the few jurisdictions where preliminary–and even ex parte–injunctions in SEP disputes are still granted. The result is a market more exposed to abusive practices, a gap that will be explored in the next section.

3. The Brazilian Context: Absence of Specific Criteria, Exposure to Abuses, and Recommendations

The purpose of this section is to evaluate how SEP disputes are handled in Brazil in light of international experience, identifying regulatory gaps and proposing recommendations to reduce these disparities. The starting point for understanding the Brazilian framework is recognizing that, to date, courts and authorities continue to treat standard-essential patents as if they were ordinary patents. In infringement litigation, injunction requests are still assessed solely under the traditional criteria of likelihood of success on the merits and risk of irreparable harm, with no differentiation tied to the hybrid nature of SEPs.

The result is an environment where injunctions are more predictable in their issuance–and therefore carry significant strategic value as a competitive threat, particularly in the form of stoppages (stop-ship, recalls, channel blockages). This predictability shifts bargaining dynamics toward supra-FRAND outcomes driven by time pressure rather than by the incremental value of the technology.:

> "Brazilian courts have in the past gained international notoriety as 'plaintiff-friendly' venues for SEPs dispute. Notable disputes are Ericsson v TCT (2012-2014) and Vringo v ZTE (2014), with courts granting patentees injunctive relief in preliminary proceedings. This trend has continued thereafter. In 2024, preliminary injunctions were issued and upheld in the appellate cases of Nokia v. Amazon (H.264/AVC standard), Mitsubishi Electric v. SEMP TCL (HEVC standard), and NEC v. SEMP TCL (HEVC standard). Final injunctions were also issued upon findings of infringement (e.g., see the 2023 ruling in DivX v. Netflix).
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> It is important to note that Brazilian courts have in the past followed two different approaches to issuing injunctions in patent cases. When dealing with preliminary injunctions, courts have tended to consider their impact on defendants' businesses and the public interest (as mandated by Article 300 (3) of the Civil Procedure Code). Conversely, upon reaching an infringement finding, final injunctions have been granted almost automatically. **Further, when trying SEPs cases, Brazilian courts have often noted that there is no statutorily set differentiation between patents in general and SEP-encumbered patents. In other words, judges have tended to rule on SEPs cases just as they would in any other patent infringement dispute".**[125]

The same pattern has been observed in the administrative sphere. In Ericsson v. TCT (2014), CADE closed the investigation on the grounds that the judicial actions and licensing terms in question did not exceed the bounds of legitimate patent defense, disregarding the specific competitive impact of SEPs:

> "After analyzing the case, the General Superintendence recommended closure on June 1, 2015, through Technical Note No. 11/2015/SG. In this document, the SG concluded that: (...) The impasse regarding the determination of a reasonable and non-discriminatory value to be paid for licensing, as well as any potential misuse of a patent, are private intellectual property

[125] BONADIO, Enrico; TINOCO, Jorge; LEOPOLDINO, Daniel. SEPs injunctions with a tropical flavour: the Brazilian scenario. Wolters Kluwer Patent Blog, 17 mar. 2023. Available at: https://legalblogs.wolterskluwer.com/patent-blog/seps-injunctions-with-a-tropical-flavour-the-brazilian-scenario/. Access: 23 aug. 2025.

> and contractual issues that should be discussed in court. According to the Technical Note, there was no evidence of a typically anticompetitive practice.".[126]

In other words, at a time when case law in Europe, the U.S., and Asia was already accounting for the specificities of SEPs–even under different frameworks–CADE still treated royalty setting as a private matter. While foreign courts moved to condition injunctive relief on SEP-specific safeguards, Brazil remained anchored to generic criteria that don't reflect SEP dynamics. The contrast is stark: whereas international case law has tied injunctions to strict filters, Brazilian courts continue applying the generic playbook for ordinary patents–creating systemic competitive risks.

This pattern continues today. One of the clearest examples is DivX v. Netflix, filed in 2020 and decided on the merits by the 5th Business Court of Rio de Janeiro in December 2023. The court found Netflix in violation of a DivX patent tied to the HEVC video standard and made permanent a preliminary injunction. Netflix was barred from offering content with the deblocking filter enabled, ordered to pay damages, and hit with millions in fines for violating the initial order.[127] The issue is that the ruling made no reference to the patent's essentiality. The court treated the matter as a routine infringement case–focusing solely on validity and use–while ignoring the competition concerns that define international case law.[128]

A second case underscores the same point: Ericsson v. Lenovo/Motorola, decided in November 2023 by the 3rd Business Court of Rio de Janeiro. The court granted Ericsson an injunction requiring Lenovo/Motorola to stop using its security technologies in 5G-compatible devices, with daily fines of R$100 for each violation–covering manufacturing, sales, distribution, and marketing.[129]

The order was later upheld in two rounds of appeals and remains in force. This case is particularly significant because it involves technologies that are fundamental to the rollout of 5G, SEPs with systemic impact on the telecom market. Yet the court's reasoning went no further than confirming Ericsson's patent ownership and apparent infringement by the

[126] [free translation] "Após analisar o caso, a Superintendência-Geral opinou pelo arquivamento do caso em 1º de junho de 2015 por meio da Nota Técnica nº 11/2015/SG. Nesse documento, a SG concluiu que: (...) O impasse na determinação de valor razoável e não discriminatório a ser pago para o licenciamento, bem como eventual uso indevido de patente, constituem questões privadas de propriedade intelectual e contratual, devendo ser discutidas na esfera judicial. De acordo com a Nota Técnica, não havia indícios de uma conduta tipicamente anticoncorrencial." – CONSELHO ADMINISTRATIVO DE DEFESA ECONÔMICA (CADE). Contribuições do CADE sobre patentes essenciais. Brasília: CADE, 2020. Available at: https://cdn.cade.gov.br/Portal/centrais-de-conteudo/publicacoes/contribuicoes-do-cade/Contribuições-do-Cade-Patentes-Essenciais.pdf. Access: 23 aug. 2025.

[127] IAM MEDIA. Brazilian court hands down first tech permanent injunction as Netflix SEP litigation continues to rise. IAM – SEP/FRAND Hub, 5 jul. 2023. Available at: https://www.iam-media.com/hub/sepfrand-hub/2023/article/brazilian-court-hands-down-first-tech-permanent-injunction-netflix-sep-litigation-continues-rise. Access: 23 aug. 2025.

[128] IAM MEDIA. Brazilian court hands down first tech permanent injunction as Netflix SEP litigation continues to rise. IAM – SEP/FRAND Hub, 5 jul. 2023. Available at: https://www.iam-media.com/hub/sepfrand-hub/2023/article/brazilian-court-hands-down-first-tech-permanent-injunction-netflix-sep-litigation-continues-rise. Access: 23 aug. 2025.

[129] IAM MEDIA. Brazilian court hands down first tech permanent injunction as Netflix SEP litigation continues to rise. IAM – SEP/FRAND Hub, 5 jul. 2023. Available at: https://www.iam-media.com/hub/sepfrand-hub/2023/article/brazilian-court-hands-down-first-tech-permanent-injunction-netflix-sep-litigation-continues-rise. Access: 23 aug. 2025.

implementers, with no mention of the essential character of these technologies or of Ericsson's FRAND licensing commitments made before standard-setting organizations.[130]

In practice, this means SEP holders in Brazil can block the commercialization of complex products right at the outset of litigation, relying solely on unilateral arguments from the patent holder. This reinforces the perception that Brazil offers a litigation-friendly environment for hold-up strategies driven by lawsuits. In this case, the Brazilian court imposed a severe exclusionary measure while ignoring the competitive risks of depriving the domestic market of 5G devices at a critical stage of technology rollout.

From a public-interest perspective, this is precisely the kind of decision that would likely have been questioned under the U.S. eBay test, once again showing how the absence of any balancing between intellectual-property and competition considerations stands in sharp contrast to international practice. None of this, however, was taken into account by the Rio de Janeiro court in the Netflix dispute: the ruling simply reinforced patent exclusivity and imposed absolute injunctive relief.

Taken together, these cases show how the absence of SEP-specific safeguards in Brazil opens the door to disproportionate remedies that distort markets and undercut the public interest. The risk is clear: exclusion becomes a bargaining chip for supra-FRAND deals, making Brazil attractive as a pressure point in global disputes. Rather than developing SEP-specific doctrine, courts remain stuck in the ordinary patent framework, exposing the regulatory gap that sets Brazil apart from global best practice.

International case law points in a different direction. When courts take into account the essential character of a patent, they tend to favor narrower, less disruptive remedies. In Brazil, that kind of reasoning has only just begun to appear–and only in a handful of isolated rulings. Take DivX v. Gorenje: a preliminary injunction was initially granted but later lifted, allowing operations to continue under a bond. The court acknowledged that the dispute was fundamentally monetary and that forcing products off the market would have been disproportionate. On appeal, the 7th Civil Chamber followed the same logic, replacing injunctive relief with a bond:

> "In another recent case before the Rio de Janeiro State Court, DivX v. Gorenje, the court appeared more inclined to assess implementers' interests when addressing preliminary injunctions. The SEP holder, DivX, asserted one of its patents (covering video technology used in the HEVC standard) against Hisense Gorenje and its commercial partners in Brazil. A preliminary injunction was initially granted in favor of DivX, but the court subsequently suspended it and allowed the implementer to continue its operations upon the posting of a judicial bond. Similar decisions were issued by the Rio de Janeiro judiciary in DivX v. Amazon (again focusing on the HEVC standard) and in Dolby v. TCL, centered on the Advanced Audio

[130] IAM MEDIA. Brazilian court hands down first tech permanent injunction as Netflix SEP litigation continues to rise. IAM – SEP/FRAND Hub, 5 jul. 2023. Available at: https://www.iam-media.com/hub/sepfrand-hub/2023/article/brazilian-court-hands-down-first-tech-permanent-injunction-netflix-sep-litigation-continues-rise. Access: 23 aug. 2025.

> Coding standard. In May 2024, a provisional order in DivX v. Gorenje provided some guidance on preliminary injunctions in Brazilian SEP cases. The Rio de Janeiro State Court observed that, before obtaining such orders, SEP holders bear the burden of demonstrating that they have offered a license on FRAND terms. Although no specific details were disclosed to clarify what constitutes a FRAND license under these circumstances, the judge emphasized that the 'non-discrimination' aspect is the most important criterion for assessing compliance with FRAND terms. To date, this is the first decision by a Brazilian court to highlight that patent holders must comply with FRAND obligations (Bonadio et al., 2024).".[131]

On the administrative front, CADE has also started to shift. In 2024 it launched an investigation in Motorola/Lenovo v. Ericsson, looking into potential abuse tied to excessive royalties in 5G contracts and the bundling of global deals into negotiations in Brazil. More importantly, CADE spotlighted the broader issue in a dedicated report on SEPs, explicitly calling out the disconnect between Brazilian courts–particularly in Rio de Janeiro–and international practice:

> "The Brazilian judiciary–particularly in Rio de Janeiro–has increasingly been called upon to rule in infringement suits involving standard essential patents. These cases pit patent holders' rights against implementers' prerogative to use technologies built on thousands of SEPs. What has emerged is a proliferation of injunctions granted against implementers without any consideration of the distinctive features that set SEPs apart from ordinary patents. Because of this track record, SEP holders continue to seek out Rio courts as a preferred venue to obtain injunctions capable of disrupting business operations in Brazil–often with the sole purpose of exerting pressure to secure more favorable global licensing agreements.". [132]

[131] Free translation: "Em outro caso recente perante o tribunal estadual do Rio de Janeiro, DivX vs. Gorenje26 , o tribunal pareceu mais interessado em avaliar os interesses dos implementadores ao discutir liminares. O proprietário da SEP, DivX, defendeu uma de suas patentes (que cobre a tecnologia de vídeo usada no padrão HEVC) contra a Hisense Gorenje e seus parceiros comerciais no Brasil. Uma liminar foi inicialmente concedida à DivX, mas depois o tribunal a suspendeu e permitiu que o implementador continuasse as suas atividades, pagando uma fiança judicial. Decisões semelhantes foram dadas pelo Poder Judiciário fluminense em DivX vs. Amazon27 (com foco novamente no padrão HEVC), e em Dolby vs. TCL28 , centrado no padrão Advanced Audio Coding. Em maio de 2024 uma ordem provisória em DivX v. Gorenje forneceu algumas diretrizes sobre liminares em casos de SEPs brasileiros. O tribunal estadual do Rio de Janeiro observou que, antes de obter tais ordens, os proprietários de SEPs têm o ônus de demonstrar que ofereceram uma licença em termos FRAND. Embora nenhum detalhe específico tenha sido revelado para esclarecer como é uma licença FRAND nessas circunstâncias, o juiz enfatizou que o aspecto de "não discriminação" é o critério mais importante para avaliar a conformidade com termos FRAND. Até o momento, esta é a primeira decisão de um tribunal brasileiro destacando que os titulares de patentes devem cumprir as obrigações FRAND (Bonadio et al, 2024)" – CONSELHO ADMINISTRATIVO DE DEFESA ECONÔMICA (CADE). Contribuições do CADE sobre patentes essenciais. Brasília: CADE, 2020. Available at: https://cdn.cade.gov.br/Portal/centrais-de-conteudo/publicacoes/contribuicoes-do-cade/Contribuições-do-Cade-Patentes-Essenciais.pdf. Access: 23 aug. 2025.

[132] [free translation] "o Judiciário brasileiro, sobretudo o fluminense, tem sido instado a se posicionar no bojo de ações de infração de patentes essenciais com relação aos direitos dos titulares desses títulos em contraposição à prerrogativa dos implementadores de utilizarem os padrões tecnológicos compostos por milhares de SEPs. Verifica-se a profusão de diversas decisões liminares, concedendo tutelas inibitórias contra implementadores sem levar em consideração que as SEPs, como visto, têm particularidades que as descolam das patentes tradicionais. Por causa desse histórico, titulares de SEPs seguem procurando o Judiciário fluminense para obter liminares com potencial de prejudicar a atividade de empresas no Brasil, com o único propósito de realizar pressão para a obtenção de acordos de licenciamento global mais vantajosos." – CONSELHO ADMINISTRATIVO DE DEFESA ECONÔMICA (CADE). Contribuições do CADE sobre patentes essenciais. Brasília: CADE, 2020. Available at: https://cdn.cade.gov.br/Portal/centrais-de-conteudo/publicacoes/contribuicoes-do-cade/Contribuições-do-Cade-Patentes-Essenciais.pdf. Access: 23 aug. 2025.

It is clear, however, that these rulings represent only incremental and insufficient progress. Unlike the international landscape, where case law has converged around established evaluation criteria, in Brazil any change still depends on the discretion of specific chambers or courts, with no uniform procedural standards. Coordination is also lacking between the judiciary and the competition authority: while abroad judicial and administrative practice have reinforced each other to build a body of safeguards, in Brazil each forum moves in isolation, producing fragmented responses.

As a result, the absence of SEP-specific guidelines may be enabling injunctions in contexts that, under international standards, would likely be deemed abusive. In other words, the regulatory gap creates uncertainty that favors the automatic grant of exclusionary measures. This pro-plaintiff tilt, combined with the absence of adequate safeguards, generates three systemic effects.

First, it incentivizes SEP holders to treat Brazil as a pressure jurisdiction for securing supra-FRAND global settlements, leveraging the strategic value of early injunctions. Second, it creates risks of excluding critical technology products from mass markets, with direct consequences for consumers and for the diffusion of innovation. Third, it undermines institutional credibility by moving the country further away from international practices grounded in proportionality and the protection of the public interest. The final assessment is that Brazil remains behind in institutionalizing FRAND safeguards and, as a result, remains vulnerable to anticompetitive practices. While there are signs of incremental progress, the absence of clear criteria allows the threat of market exclusion to continue functioning as supra-FRAND bargaining leverage.

To reduce this vulnerability and align with international best practice, Brazil must establish specific guidelines for handling SEPs in both judicial and administrative settings. In particular, these guidelines should be grounded in objective filters that focus on the economic effects of granting injunctions and the availability of less restrictive alternatives–filters similar to those in the U.S. eBay test, which prioritizes proportionality and public interest over a narrow finding of infringement. The U.S. experience shows that the most effective path is not to condition injunctions on subjective debates over negotiating conduct, but to apply objective standards anchored in economic evidence and public interest.

Against this backdrop, it is recommended that Brazil adopt guidelines inspired by the following principles:

- Irreparability: In SEP cases, irreparable harm should not be presumed. More fundamentally, the FRAND commitment itself is a voluntary acknowledgment by the SEP holder that monetary remedies are, in principle, sufficient to address infringement. By agreeing ex ante to license on fair, reasonable, and non-discriminatory terms, the holder signals that exclusion is not the mechanism through which value should be protected. This self-imposed limitation weighs heavily against any claim of non-compensable harm. Acting as an NPE or having access to escrow, provisional royalties, or retroactive payments further undermines assertions of irreparability.

- No adequate remedy at law: Because FRAND embodies an explicit commitment to compensability, courts should treat monetary relief as presumptively adequate in SEP disputes. Before considering exclusionary measures, judges must evaluate whether less restrictive alternatives – such as escrow, bonds, provisional royalties, or detailed accounting – fully safeguard the holder's rights. When the holder has voluntarily accepted a framework grounded in financial compensation, market exclusion becomes an exceptional remedy rather than a default response.
- Balance of hardships: By committing to license essential technology on reasonable terms, SEP holders accept that their interests can ordinarily be protected through monetary remedies, whereas implementers face disproportionate and systemic risks from exclusion (shutdowns, recalls, channel disruption, and cascading supply-chain effects). In industries characterized by fragmentation and royalty stacking, these downstream harms multiply, tilting the hardship analysis decisively against injunctive relief
- Public interest: Because standards depend on open access and interoperability, honoring FRAND obligations preserves technology diffusion, competitive neutrality, and consumer access to standardized products. Granting injunctions in contexts where the holder previously agreed to license on compensable terms undermines the credibility of the standard-setting system itself. For this reason, in SEP disputes, exclusion should be truly exceptional.

Adopting these criteria in Brazil would reduce legal uncertainty, discourage the strategic use of litigation as a pressure tactic, and bring national practice closer to leading international benchmarks. Conditioning injunctions in SEP disputes on these filters would create a more predictable and balanced environment–one that preserves incentives for innovation and ensures fair compensation for patent holders, while also safeguarding competition and the continuity of standardized markets.

It is important to stress that these recommendations are grounded in international benchmarks, but the actual design of Brazilian guidelines must emerge from broad debate involving multiple stakeholders–courts, CADE, INPI, sector regulators, business associations, standard-setting organizations, and academia. Only through this dialogue can the criteria be calibrated to Brazil's legal and economic realities, ensuring the right balance between intellectual property protection and competition. In this process, additional recommendations may emerge, tailored to the specific features of the national framework.

What matters most is that Brazil takes the first step: recognizing that SEPs require differentiated treatment and that, without clear guidance, injunctions risk becoming instruments of anticompetitive abuse. The timing is particularly favorable. CADE itself has already acknowledged the potential for abuse in SEP disputes–reinforcing the urgency of aligning Brazil's institutional framework with international best practice. Doing so would reduce uncertainty, neutralize the strategic value of injunction threats, and bring national practice into closer alignment with global standards.

Conclusion

This study shows that Standard Essential Patents (SEPs) occupy a singular position in the intellectual property system. They sit at the intersection of exclusivity and interoperability–rights designed to reward innovation on one hand, and obligations to keep critical technologies accessible on the other. It is this hybrid character that explains the need for specific commitments such as FRAND licensing, meant to balance incentives for innovation with the preservation of competition.

In Brazil, however, the lack of clear guidance has led courts to treat SEPs as if they were ordinary patents, ignoring essentiality as a factor that fundamentally shifts competitive dynamics. That gap has turned injunctions into bargaining weapons, encouraged forum shopping, and raised the odds of supra-FRAND outcomes–undermining consumers and slowing the spread of technology. Recent cases highlight this vulnerability: when essentiality is overlooked, courts default to automatic exclusion; when it is recognized, more proportionate solutions emerge, such as bonds or monetary remedies.

Looking at international practice, the path forward for Brazil is clear: adopt criteria modeled on the U.S. eBay test. The strength of that framework is its focus on measurable economic impact, rather than subjective judgments about negotiation behavior. Unlike the European model–anchored in procedural notions of "good faith" that often add uncertainty and prolong litigation–the U.S. test relies on objective filters: irreparable harm, adequacy of monetary relief, proportionality, and public interest. This shift has proven effective in curbing abusive injunctions, stabilizing expectations, and encouraging high-quality innovation. By adopting a similar framework, Brazil could align itself with global best practice, reduce incentives for forum shopping, and ensure SEPs serve as engines of technology diffusion rather than tools for exclusion.

But building national guidelines will require coordinated action. Courts, CADE, INPI, sector regulators, standards organizations, industry groups, and academia all have a role to play in shaping a framework that reflects Brazilian market realities. The goal should be to prevent exclusivity rights from becoming artificial barriers to access. The timing is right: CADE has already acknowledged the risk of abuse, underscoring the urgency of filling this gap before practices become entrenched.

The first step is not to predefine every rule, but to recognize that SEPs demand differentiated treatment. That recognition is a condition for strengthening legal certainty, reducing incentives for forum shopping, protecting competition, and sustaining confidence in standardization as a true driver of innovation.