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HOW TO REDUCE COMPLEXITY IN THE LICENSING LANDSCAPE OF STANDARDISED TECHNOLOGY

Abstract

The innovation ecosystem is a fundamental driver of economic development and societal wellbeing. For this reason, key innovations such as 5G and IoT (Internet of Things), which are expected to bring significant benefits to our society and the world economy, should be supported by a standardization effort that allows different infrastructures, services and devices to interoperate in order to facilitate the diffusion and widespread deployment of new technologies on the market and avoid the risk of lock-in into competing, proprietary technologies.

Standardization is fundamental to allow interoperability and the worldwide success of new technologies. Standardization bodies have the technical and administrative task to choose the best technology made available by innovators who participate in the standardization efforts. The latter are then rewarded for their contributions to standardization through patent licensing. However, with the ever-increasing complexity in technological standards, licensing activities are often quite complicated, and this causes friction between patent owners and implementers.

The article proposes how to solve this complex situation, analysing the role of the FRAND commitment; which factors to be considered when setting a FRAND royalty rate; and how the different interests of innovators (patent owners/licensors) and implementers (licensees) should be well balanced, by means of patent pooling, or injunctions, thus promoting the level playing field that is at the core of fair market competition

This article offers insights from leading market participants who have engaged in licensing of standard essential patents, are developing frameworks to address the challenges of licensing of new technologies covering Internet of Things and application of cellular technologies in the automotive sector; and have actively litigated cases that help shape today's negotiating process for SEPs.

The first part of this article describes Europe's ambitions in its Digital Agenda and sets out the Inventive Loop (a company's R&D resulting in patented innovations that when standardised can be licensed for royalties that in turn fund further R&D). It then summarizes the exclusive right available to a patent owner, subject to compulsory licensing and to the holder's FRAND promise if his innovation is essential to a standard. The article goes on to examine different methodologies for calculating a FRAND royalty rate and its application to new industrial sectors, such as through the adoption by automakers of new cellular mobility technologies.

The final part of the article discusses two mechanisms to promote SEP licensing: the judicially created framework for SEP licensing negotiations (as recently set out in *Sisvel v Haier*) and in patent pools. It

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assesses a further recent judicial development – anti-suit injunctions – where the exercise of jurisdiction by one court may be harmful to the sovereignty of another. Alternative dispute resolution processes, such as arbitration, may provide a mechanism to resolve global FRAND licensing disputes and reduce these territorial conflicts. The article notes that standard setting organizations could serve as a platform to foster pool formation and to encourage arbitration.

JEL CLASSIFICATION: K21; L15; O31; O32; O33; O34.

SUMMARY

1 The Importance of Innovation and Global Standards - 1.1 The inventive loop - 2 SEPs and the FRAND Commitment - 2.1 Factors to consider when setting a FRAND royalty rate - 3 Injunction and Litigation. - 3.1 *Sisvel v. Haier* and the concept of “willing licensees” - 3.2 *Unwired Planet vs. Huawei* and the ASI Phenomenon - 3.3 Applying for an ASI indicates unwillingness to take a FRAND license - 3.4 *Phoenix Contact vs. Harting* and the precautionary measures - 4 Patent pools for an industry-wide balance - 4.1 A possible role for SSOs (Standard Setting Organizations) - 4.2 The importance of patent pools in assuring licensing of strong patents at a fair price - 5 ADR to solve FRAND disputes and avoid delaying tactics - 6 Conclusion: how to support the standards-based innovation ecosystem

1 The Importance of Innovation and Global Standards

The information and communications technology (ICT) developed in an innovative ecosystem is a fundamental driver of economic development and societal well-being. The importance of this ecosystem serves as the basis for the objectives outlined in the European Union’s Digital Agenda for 2020-2030.¹

The first Digital Agenda for Europe (2010-2020) focused on allowing better access for consumers and businesses to digital goods and services across Europe, including: simplifying the access to electronic communications; better Internet connectivity for all; and better protection of consumers in telecommunications with legislation on privacy and data protection.

The Covid-19 global shutdown has highlighted the importance of digital tools. In fact, with restrictions in place, businesses and citizens heavily relied on technology and connectivity to carry out their day-to-day economic and social activities. The pandemic accelerated the digital transformation and, thanks to improved digital infrastructure, European society, and our broader society, were all able to keep on working, learning and socializing.

The second and current Digital Agenda for Europe (2020-2030) focuses on the profound changes introduced by digital technologies, the essential role of digital services and markets, and new EU technological and geopolitical ambitions. Based on

¹ For an overview of the work within the institutions of the European Union on ICTs and related fields, see Christina Ratcliff, Barbara Martinello, Vasileiso Litos, ‘Digital Agenda for Europe’ (July 2022) available at <<https://www.europarl.europa.eu/factsheets/en/sheet/64/digital-agenda-for-europe>> accessed 11 November 2022.

two strategic communications, namely “Shaping Europe’s Digital Future” and “Europe’s Digital Decade”,² the Commission set out the specific actions it will undertake to aid the creation of safe and secure digital services and markets and achieve by 2030 the following four digital objectives:

- Skills: At least 80% of all adults should have basic digital skills and there should be 20 million ICT specialists employed in the EU;
- Businesses: 75% of companies should use cloud computing services, big data and artificial intelligence (AI); more than 90% of EU small and medium-sized enterprises should reach at least a basic level of digital intensity;
- Infrastructure: All EU households should have gigabit connectivity and all populated areas should be covered by 5G; the production of cutting-edge and sustainable semiconductors in Europe should make up 20% of worldwide production; 10.000 climate-neutral highly secure edge nodes should be deployed in the EU, and Europe should have its first quantum computer;
- Public services: All key public services should be available online; all citizens will have access to their e-medical records, and 80% of citizens should use an electronic identity solution.

To achieve these goals, the Digital Europe Program, a new EU funding program for digital technology with a planned overall budget of EUR 7.5 billion for the 2021-2027 period, will provide strategic funding to support projects in five areas: supercomputing, Artificial Intelligence (AI), cybersecurity, advanced digital skills and ensuring a wide use of digital technologies across the industry and society.

A vibrant and effective innovation ecosystem could also be achieved thanks to global standards and standard setting organizations (SSOs), which play a vital role in the definition and dissemination of interoperable standardised technologies such as 5G, Wi-Fi and IoT, which have an enormous impact on our daily lives.

SSOs, such as ETSI (European Telecommunications Standards Institute), IEEE (Institute of Electrical and Electronics Engineers) and DVB (Digital Video Broadcasting) and the newly created standardization body MPAI (Moving Picture, Audio and Data Coding by Artificial Intelligence)³, are collectors of new ideas from innovators and have the important task of transforming them into public documents, technical reports and specifications to be used by companies to manufacture interoperable products

² European Commission, ‘Shaping Europe’s Digital Future’ (2020), available at <https://ec.europa.eu/info/sites/default/files/communication-shaping-europes-digital-future-feb2020_en_4.pdf> accessed 11 November 2022; and Communication from the Commission to the European parliament, the Council, the European Economic and Social Committee and the Committee of the regions 2030 Digital Compass: the European Way for the Digital Decade (COM(2021) 118 final) 9 Mar 2021 available at <<https://eur-lex.europa.eu/legal-content/en/TXT/?uri=CELEX%3A52021DC0118>> accessed 11 November 2022.

³ Information on the recently formed MPAI is available at <<https://mpai.community/>> accessed 11 November 2022.

worldwide and to provide interoperable services. The benefits of global standards are extensive in areas such as trade, innovation efforts and the creation of true interoperability for products and services.⁴

Global standards remove national and proprietary technical specifications and help to:

- Remove technical barriers, simplifying access to a global market in particular for small and medium-sized enterprises (SMEs) and research institutes;
- Facilitate the introduction of innovative products provided by interoperability between new and existing products, services, and processes;
- Bridge the gap between research and marketable products or services;
- Increase the quality and safety of products for consumers.

1.1 The inventive loop

The current innovation framework based on standards has guaranteed adequate rewards to innovators, making such rewards accessible thanks to intellectual property rights (IPRs) and licensing on fair conditions.

Whilst in the past intellectual property may have been regarded as a legal tool, through exercise of exclusive rights, to create a competitive barrier of entry in the market, today it represents also an important asset for corporate financing. Through licensing activities, revenues from royalties paid by a third party for the use of a patented technology (comprising technologies included in a standard) can be re-invested in new R&D efforts for new innovations. This creates a self-sustaining cycle in which the economic results of previous innovation can fund new research to generate an inventive loop in which intangible assets acquire a tangible economic value.

There are many examples of companies and research institutes that finance all or part of their R&D through the revenues derived from their patent licensing activities. This business model is equally applicable to large or small businesses, in the public or private sector as well as universities. It ensures a continuous flow of capital to support innovation through research and development activities and it is of great importance especially to companies that waive their monopoly rights to make their patented technologies available within standards, opening broad new markets for implementers.

All the activities conducted to develop a new standard require huge investments in terms of R&D. To reward the efforts and expenditure of innovators and their contribution to the standardization process a reasonable financial return must be recognized to them, including public and private R&D companies that are fundamental

⁴ See for example European Commission, Benefits of Standards (n.d.), available at <https://ec.europa.eu/growth/single-market/european-standards/standardisation-policy/benefits-standards_en> accessed 11 November 2022.

for long term research. In fact, many companies and innovators agree to participate in standardization activities in view of the potential return on investment (ROI) that they could generate by allowing access to their patented technology. The current standard innovation framework has enabled all stakeholders to take an active role in the innovation and standardization process, facilitating the dissemination of new technologies. Failing to recognise this opportunity may discourage innovators from investing in new research, leading them to avoid participation in the standardization process and instead revert to closed proprietary solutions, which are detrimental to technical progress and societal well-being.⁵

2 SEPs and the FRAND Commitment

Patent law dates back to the fifteenth century when the first Patent Statute issued by the Most Serene Republic of Venice in 1474 granted protection to inventors for ten years for disclosing their inventions. Since its creation, the rationale behind the patent system has remained almost the same: to foster innovation and technical progress and ensure that inventors receive a financial reward for their ingenuity.

A patent is an exclusive right granted (today up to 20 years) to an inventor for disclosing to the public an innovative technical solution. It does not necessarily oblige the patent owner himself to exploit the invention. Rather, it provides the right to exclude others from making, using, selling, or importing the patented invention without the patent owner's permission (license). For this reason, a patent is defined as an exclusionary right.

However, there are cases in which patent owners do not have a complete monopoly over a certain invention. One notable case is when a compulsory license should be given to a party wishing to use a patented invention. A compulsory license provides that the owner must license his patented invention against a determined fee set by law. In essence, under a compulsory license, an individual or company seeking to use another's IPR can, under certain conditions, do so even without negotiating and finding an agreement with the rights holder but paying for the license a fee decided by a regulatory authority.

This exception to the inventor's right to exclude is acknowledged in the World Trade Organization's agreement on intellectual property – the TRIPS (Trade-Related Aspects

⁵ Roberto Dini, Sir Robin Jacob, Eeva K. Hakoranta, Gustav Brismark & Richard Vary, 'Restoring Balance and Clarity in the Innovation Ecosystem' (2021) 41 *The Licensing Journal* No 8 1; Roberto Dini, 'Fostering Innovation by Way of Protecting Inventions: The Inventive Loop' (2018) 53 *les Nouvelles - Journal of the Licensing Executives Society* No. 3 165, available at SSRN: <<https://ssrn.com/abstract=3218574>> accessed 11 November 2022.

of Intellectual Property Rights) Agreement.⁶ A compulsory license is often associated, but not limited to, public health reasons or the lack of fundamental goods required by the market. The exception is well understood and has seldom created friction. Its aim is to strike a balance between promoting access to fundamental products, for example in the pharmaceutical industry, and promoting new research and development.

A similar approach is taken for a standard essential patent (SEP), a particular kind of patent which discloses and claims an invention that is technically required to practice a given industry standard, as defined by a standard setting organization. By contributing their technology to the standard, companies agree to forgo the right to use their SEPs solely for proprietary purposes and agree to license them on FRAND terms. The FRAND (fair reasonable and non-discriminatory) commitment aims to ensure that interoperable solutions are implemented, benefiting both SEP owners and licensees. It prevents patent owners from blocking the market (hold up behaviour)⁷ and guarantees that SEPs are licensed under fair and reasonable terms. In this way, implementers can enter new markets and patent owners can be rewarded with a reasonable economic return for their R&D investments, providing funds for further innovation.

However, over the years the FRAND commitment has also created various issues, such as the perceived problem of over-declaration of patents before standardization bodies, concerns regarding essentiality and, above all, the issue of how to determine a FRAND royalty rate. Furthermore, the FRAND commitment is a unidirectional obligation more for the benefit of implementers than for the benefit of innovators. In fact, implementers are not currently bound to any commitment symmetrical to the FRAND obligations, and they often adopt hold-out strategies which have a negative impact on royalty revenues, distort the level playing field and potentially hinder further innovation.

To overcome uncertainties generated by the FRAND commitment, Moving Picture Audio and Data Coding by Artificial Intelligence (MPAI), a recent standardization entity, has adopted for instance a new intellectual property management model called “FrameWork License” (FWL), which already establishes at the outset of the

⁶ The term “compulsory licensing” does not directly appear in the TRIPS Agreement; instead Art. 31 refers to “other use without authorization of the right holder”. This refers to compulsory licensing and other use authorized by governments for their own purposes. Agreement on Trade-Related Aspects of Intellectual Property Rights, Apr. 15, 1994, Marrakesh Agreement Establishing the World Trade Organization, Annex 1C, 1869 U.N.T.S. 299, 33 I.L.M. 1197 (1994). Art. 31 (on other use of patents without authorization of the right holder) is available at <https://www.wto.org/english/docs_e/legal_e/27-trips_04c_e.htm> accessed 11 November 2022.

⁷ “Patent hold up” refers to opportunistic licensing of a SEP when the SEP owner seeks unreasonable royalties because the patent is essential to the standard. To deter patent hold up, SSOs generally require participants to disclose their relevant patent rights to the SSO during the standard's development and license any SEPs on fair, reasonable, and non-discriminatory terms. The implementer is “held up” because it must take a licence from the SEP holder; the FRAND promise made by the SEP holder constrains its royalty demand. While there are several examples of patent hold out by implementers, except from the famous Rambus case, there is no further evidence of patent hold-up by patent owners.

standardization activities the guidelines on how future licenses relating to MPAI-essential patents SEPs should be applied. Thanks to these more precise guidelines, established during the standardization process, MPAI plans to help both the SEP holders and the implementers of the new standardised technologies to find an agreement for the use of such SEPs and avoid the friction that is very common in licensing discussions. In addition, MPAI also provides obligations for both patent owners and implementers. The following rules are defined in the MPAI statutes:⁸

- Commitment for implementers: “Only Licensees of the Essential Patents used in a product or service to which the Name and/or the Logo apply are entitled to use the MPAI Name and/or the MPAI Logo”.
- Commitment for innovators: “Patent owners will grant a license for the SEPs at a cost of the licenses for similar data coding/decoding technologies and will take into account the value on the market of the specific standardised technology. It will also state that access to the standard will be granted in a non-discriminatory fashion”.

MPAI thus sets for SEP holders a reference point for royalty rates while creating for implementers an incentive (use of MPAI branding) tied to completion of licensing negotiations.

2.1 Factors to consider when setting a FRAND royalty rate

Standards foster innovation; they open markets for new products and services; and they increase competition, which then benefits innovators, implementers and consumers.

A FRAND royalty is indeed the fair reward recognized to the patent holder for the R&D investment made to develop the patented technology made available within a standard. At the same time, FRAND pricing must also incorporate licensee-related interests and the aggregate royalty paid by the implementer must be reasonable and affordable for the market.

The question is: how do we transform these concepts into numbers or rates by determining a FRAND value for a SEP license?

The widespread adoption of standardised technologies over the past decades has resulted in different ways to determine a FRAND royalty. Various approaches have been developed,⁹ including:

⁸ For more information on MPAI statutes, please visit: <<https://mpai.community/statutes/>> accessed 11 November 2022. On its approach to licensing see now: Roberto Dini, ‘FRAND forever? Or are there other business models possible?’ (2021), available at <www.MPAI.community> accessed 11 November 2022.

⁹ For a discussion of these approaches, see Matteo Sabattini, ‘Defining Fairness: Promoting Standards Development By Balancing The Interests Of Patent Owners And Implementers’ (2016) 51 LES Nouvelles No 2 46.

- ex-ante approach;
- top-down approach;
- comparable-licensing approach;
- value-added approach.

The “ex-ante approach”, which is generally considered too vague and indefinite, is in large measure based on the concept that a reasonable FRAND royalty must be defined and implemented by reference to ex ante competition, i.e., before a single technical solution is selected to become part of a standard. The “ex ante” approach is designed to take account of the perceived risk that a disproportionate increase in the SEP’s value could be due to its selection for the standard (and not to a notional “ex ante” value). This approach is not effective considering that when a technology is incorporated into a standard, the related patent has a high scientific and commercial value, and it is not a so-called “frivolous” patent of trivial value.

The “top-down approach” extrapolates the aggregate royalty rate of all SEPs reading on a particular standard and then identifies a SEP holder’s exact portion of this aggregate rate. It presents, however, severe informational challenges like the problem of over-declarations that makes it impossible to know how many actual essential patents cover a certain technology. As a result it relies on basic patent counting, thus failing to consider the value of the patents for example as contributing to the success of the standard (and to the success of the implementing devices).

An alternative approach to FRAND rate determination is the so-called “comparable-licensing approach”, which is based on the royalty calculation on licensing agreements signed by similarly situated parties. This approach provides reliable evidence on how markets assess the value of SEPS; however, due to confidentiality provisions present in licensing agreements, it may be hard to have access to comparable source.

Finally, the “value-added approach”, which is the most widely used approach, considers the value added to the licensed product by the patented technology in terms of new or improved functionalities: the higher the value generated, the higher the royalty rate.

Unfortunately, not all implementers are ready to fully recognise the value added by SEPs. This is demonstrated by theories such as the “smallest saleable patent practicing unit” or “license to all” approach, which propose to base the royalty calculation and licensing attachment point respectively on the component without taking in account the added value the technology provides to the end product.¹⁰ These approaches do not

¹⁰ This approach was adopted in 2015 by the IEEE in its IPR policy but now appears to have been abandoned. See the update provided by IEEE to the bylaws relating to patents, IEEE SA Standards Board Bylaws, art 6, available at <<https://standards.ieee.org/wp-content/uploads/import/governance/bog/resolutions/september2022-updates->

adequately reward the patent owners for the value of their investments, nor do they incentivise further development expenditures for innovation; this would be detrimental to the objective of intellectual property rights of incentivising innovators and business to provide the market always with more performing products for the benefit of consumers.

A mobile phone that some time ago, at most, was able only to make voice calls and send text messages, the so-called short message services (SMS), cannot be compared to the smartphones we use today, which, due to the growing number of embedded features, include considerably more features protected by means of IPRs. These modern devices are worth more than older and less functional devices, and implementers as well as users must recognise the enhanced value of the IP that makes those features possible. Is it fair to diminish this amount to a percentage of the smallest saleable unit? Clearly, the value is provided not only by the chipset, but by the entire phone and embedded innovations connected to and operative on the mobile network.

What is true with mobile phones is also true with cellular technology deployed in the automotive industry. However, rather than determining what is FRAND based upon the value that a cellular connection brings to a connected car, some implementers campaign for “component-level licensing”, which proposes that the royalty calculation should be based on the component price with disregards of the use or value that the technology brings to the end product. Framed as a supply chain issue, this is a strategy to provide automakers with access to cellular connectivity at a cost that does not consider the real and actual financial value the technology brings to the final product, which in this case is a full connected car.

The difficulties with this argument become apparent if we compare the relatively low cost of a license to the IPR to the willingness of customers to pay a premium price for cellular connectivity in a car. In the automotive industry, all the SEPs owned or controlled by all the companies related to 4G connectivity (which includes also 2G/3G) are available at a one-time cost, which is between \$15 to \$20 USD (that is, less than a parking ticket in many cities). At the same time, the value added by these SEPs to the car’s functionalities, concerning broadband connectivity, road safety, etc., is orders of magnitude higher than this price. Today, few consumers would buy a premium or even mid-value automobile without cellular features; yet car manufacturers are intensely litigating and lobbying to further reduce the royalty paid on these technologies.¹¹

sasb-bylaws.pdf> (setting out in highlight changes to the policy) accompanying IEEE, IEEE Announces Decision on Its Standards-related Patent Policy (30 Sept 2022) available at <<https://standards.ieee.org/news/archive-2022/ieee-announces-decision-on-its-standards-related-patent-policy/>> accessed 11 November 2022.

¹¹ Automakers no longer appear to be reluctant to accept the terms offered by Avanci, the patent pool administrator offering licenses for 4G and other cellular technologies to the automotive market. Avanci, Avanci Expands 4G Coverage to Over 80 Auto Brands (press release 21 Sept 2022) available at

Beyond a fair reward to the innovators, licensing the car manufacturer rather than the component manufacturer simplifies and reduces the costs of the licensing process, avoiding a fragmented approach to several component makers. This solution will also benefit licensees, as the car is charged only once, even if the standardised connectivity technology is key for the functioning of multiple components serving different uses.

Another critical issue to consider in determining a fair royalty rate is the fact that the cost of the same device in Western countries is higher than in developing countries or in mass markets like China. Normally, a product sold in China costs one third less than the same product sold in Western countries. This issue can be overcome if the royalty rate is defined as a percentage of the value of the product sold on the different markets, and not at a fixed rate. This strategy would indeed nullify forum shopping, neutralizing the attempts to have a national court located in countries where the pricing of products is much cheaper defining a global royalty rate (see below on “Unwired Planet v. Huawei and the ASI Phenomenon”). Not based on geo-political influences, this method only focuses on determining what is the percentage value that correctly rewards the patent owner and at the same time does not discourage implementers from introducing products protected by SEPs on the market.

3 Injunction and Litigation

Injunctions are a fundamental tool to protect intellectual property rights and a matter of justice to prevent unauthorized use of technologies. Without injunctions, patent owners would be left powerless against the unauthorized use of their innovations, especially with regard to the so called “willful infringers” or “unwilling licensees”.

This is especially true when SEPs are involved, for in the absence of injunctive relief, there are no other remedies left to patent owners when negotiations completely fail or are purposely stalled by potential licensees that refuse to take a license.

Without a strong patent system based on injunctive relief and fair court treatment with respect to awards and fees, innovators, and in particular smaller entities, would be left with little recourse against larger corporations, with greater resources to engage in never ending legal disputes. Injunctions are in fact a competition tool that help to re-establish the much-needed balance especially in the consumer electronics field where large corporations can easily allocate hundreds of millions of dollars of their annual budget to litigate against patent owners that do not have the same financial strength.

<<https://www.avanci.com/2022/09/21/avanci-expands-4g-coverage-to-over-80-auto-brands/>> (Avanci licensing to “the majority of the connected vehicle market”) accessed 11 November 2022.

The well-known decision in the Huawei vs ZTE case issued by the Court of Justice of the EU (CJEU) in 2015 (Case ID: C-170/13) recognizes the existence of hold-out behaviour, providing clear guidance on the remedies available against “Standards Free-Riders”. It also confirms the importance of maintaining all remedies against unwilling licensees in the context of SEP licensing. In particular, the CJEU ruled that enforcement and injunctions are a matter of justice, and injunctive relief may be available if an alleged infringer fails to respond diligently and in good faith to a detailed written offer from a SEP holder.¹²

The CJEU confirmed that FRAND is a “two-way street”: licensors accept to license on FRAND terms – thus allowing SSOs to include technologies developed by the broadest possible base of stakeholders – but in return implementers accept to take a license on those FRAND terms. The burden cannot be only on patent owners, especially because implementers are not forced to implement a standard. They only do so if they see value in a potential new market based on standardised technologies, and that value needs to also account for fair rewards to the innovation ecosystem that developed the standard.

3.1 Sisvel v. Haier and the concept of “willing licensees”

In recent years, several national court rulings have been based on the framework established by European Court in Huawei vs ZTE. A step further has been made by the German Federal Supreme Court (Bundesgerichtshof - BGH) in the Sisvel vs. Haier case.¹³ The court mandated that SEP implementers must proactively seek to obtain a FRAND license by showing a concrete level of engagement in negotiations to be considered a “willing licensee”. Following the CJEU decision, the BGH ruling sets significantly stricter requirements for implementers and makes it clear that FRAND negotiations and licensing are not a one-way street where technology adopters just exploit the benefits of implementing technologies developed by others without any of the burdens associated with such use.

The BGH provided important guidelines on technology licensing negotiations of standard essential patents. In particular, the BGH has:

- recognized the existence of hold-out tactics which are widely adopted by implementers;

¹² Robert Dini, “The EU Court of Justice sets out specific requirements with which an SEP holder needs to comply in order to be able to seek an injunction without abusing its dominant position (Huawei / ZTE)” (2018) Concurrences e-Competitions Art No 85452.

¹³ On May 5, 2020, the German Federal Supreme Court delivered its ruling on the case between Sisvel, a company that manages patent pools of SEPs relating to ICT technologies, and Haier, a Chinese manufacturer of consumer electronics products. The BGH decision confirmed that Haier’s devices infringed the patent in suit and it also provided important guidelines on technology licensing negotiations of standard essential patents. Federal Court of Justice, judgment dated 5 May 2020, SISVEL Vs Haier, Case No. KZR 36/17.

- stated that a concrete level of engagement is required in negotiations for an implementer to be considered “willing” to take a license;
- confirmed that injunctions against unwilling licensees are fully available to SEP owners;
- recognized that FRAND commitment does not imply that each implementer must receive the same offer and licensing agreements may vary due to specific market circumstances;
- confirmed that patent portfolio licenses and worldwide coverage have positive effects;
- highlighted that damages for infringement should not be limited to FRAND rates.

In recent years, the concept of “willing licensee” has played a central role in SEP disputes. These present the questions of when an implementer is using “hold-out” strategies and what level of engagement in the negotiations is required for an implementer to be considered “willing”.

By recognizing the existence of hold-out strategies which are widely adopted by implementers to delay the negotiation process (such as insisting on obtaining an unreasonable amount of information or repeatedly saying that the license offer is not FRAND but neither providing constructive arguments nor a counteroffer), the BGH has set a higher threshold than in the past. In fact, the BGH underlined that an implementer must be actively engaged in the licensing negotiation process with a clear and unconditional intention of concluding a license. A certain level of active engagement is required. Just claiming to be willing to take a license is not sufficient. As stated by Mr. Justice Birss in *Unwired Planet vs. Huawei* a willing licensee must be one willing to accept a FRAND license on whatever terms that are in fact FRAND.

The BGH also pointed out in *Sisvel v Haier* that the implementer has the right to challenge the alleged infringement on the validity of the patent, but implementers should not insist on first obtaining a positive court judgement as a condition for concluding a license.¹⁴

Following the decision of the CJEU in the *Huawei vs ZTE* case, the BGH confirmed that the SEP owner must notify the implementer of the alleged infringement and the necessity to take a license. However, it criticized the practice often adopted by implementers of asking for additional technical information as a delaying tactic, in particular, in the context of SEPs, as both patents and standards are publicly available documents.

¹⁴ A similar concept is contained in a recent CJEU decision (Case 44/21 *Phoenix Contact vs. Harting* [2022] available at <<https://curia.europa.eu/juris/document/document.jsf?docid=258493&mode=lst&pageIndex=1&dir=&occ=first&part=1&text=&doclang=EN&cid=73811>> accessed 11 november 2022-) stating that interim relief for patent infringement is not precluded even when the validity of the patent concerned has not been confirmed by a decision given at first instance in opposition or invalidity proceedings.

The BGH recognized that portfolio licensing offers have positive effects and should not raise any antitrust concerns, provided that the implementer is not required to pay for the use of non-essential patents. The BGH also highlighted that it was common industry practice and more efficient to have a global portfolio license. The patent owner is not required to license a subset of SEPs; rather, the offer of the whole portfolio should be considered in the best interest of implementers to allow easy and efficient access to a larger SEP portfolio as a single solution.

Another important resolution set by the BGH is that the FRAND commitment does not mean that everyone receives the same standard offer. The aim of the FRAND commitment requested by standard setting organizations is to guarantee that all implementers can access a given standardised technology, provided that they agree to pay for a license on FRAND terms. However, the Court recognized that patent licensing sits firmly in market and business realities, and non-discrimination should not be considered hard-edged. Patent owners are thus not obliged to offer the same standard rate to all implementers. A license, which a patent owner has concluded in certain circumstances, does not necessarily become a reference for future cases. In fact, a patent owner may accept conditions which may be less favourable than normal, but which are still the best that can be obtained in those specific conditions. This does not necessarily entitle subsequent licensees to the same royalty rate. For example, Sisvel offered Haier a higher royalty fee compared to the one it previously offered to another licensee,¹⁵ a state-owned Chinese telephone manufacturer.

The BGH also confirmed that injunctions against unwilling licensees are fully available to patent owners. An injunction is the only remedy to stop unauthorized use of SEPs and can be considered as an abuse of dominance only if the implementer is ready to conclude a license under FRAND terms.

Finally, the BGH declared that SEP owners are entitled to claim full damages for the period before the implementer started pro-actively seeking a license for the patent that it necessarily infringed when, for example, it began manufacturing products compliant with the standard. Full damages should not be limited to a FRAND rate, but can be based, for example, on lost profits of the SEP owner or on the implementer's profits.

With its recent decision in *Sisvel v Haier*, the German Federal Court of Justice has acknowledged the existence of hold-out strategies and clarified that implementers must also play a more active role in obtaining a license, accepting a FRAND offer, even if a lower royalty rate has been offered to a competitor in different circumstances. Moreover, the decision of the BGH offers some important guidelines on SEP technology licensing, providing more legal certainty in the FRAND negotiation process. This results

¹⁵ On *Sisvel v Haier*, see also Matteo Baroni, *Sisvel vs. Haier – Some important guidelines on technology licensing of Standard Essential Patents (SEPs)*, available at <<https://metroconsult.it/en/2020/08/31/sisvel-vs-haier-some-important-guidelines-on-technology-licensing-of-standard-essential-patents-seps/>> accessed 11 November 2022.

in a win-win solution for both patent owners and implementers to create a level playing field in the licensing ecosystem.

3.2 Unwired Planet vs. Huawei and the ASI Phenomenon

Another landmark ruling is the UK Supreme Court decision in the Unwired Planet vs. Huawei case. The key point in this judgement is that a national judge determined the value of a FRAND royalty for a global SEP license. Initially, this ruling seemed a sensible solution for setting a global FRAND pricing mechanism for SEPs, but the decision has been misconstrued in some foreign courts.

Following this judgement, other courts issued decisions stating that they are likewise entitled to determine the level of the royalty rate for a global license. As a result, technology implementers started racing to jurisdictions believed to attribute far less value to intellectual property rights.¹⁶ This has raised considerable concerns on which court can define a FRAND royalty rate and more generally on sovereignty. An interesting example is the race to Chinese courts. As the country with the largest consumer market and where most of the factories of implementers are located, China felt entitled to claim jurisdiction over a global FRAND rate case, which was separate from any underlying claim of patent infringement.

Such reasoning, no matter how Chinese courts might try to justify it, is in contrast with the normal perception that national courts should refrain from forcing a patent owner into their courtroom and imposing a patent royalty rate outside their territory.

It is of course controversial that a national court simply takes on the jurisdiction, and the power to issue cross-border injunctions, against a party pursuing a case in another territory, regarding the determination of a global license, the so-called “anti-suit injunctions” (ASIs).

In addition, there is an important distinction between the UK decision in Unwired Planet vs. Huawei and later Chinese decisions that deployed ASIs to maintain the right in China to establish a global royalty rate and consequently interfere with foreign judicial decisions. In Unwired Planet, the UK court held that if the plaintiff was not willing to take a global license based on the court ruling, the court would issue an injunction for the UK territory, and the UK territory alone. There was no attempt to limit either party’s rights or obligations in foreign jurisdictions. The UK court respected the sovereignty of other jurisdictions; its deference stood in contrast to the practices of

¹⁶ It is interesting to note that in the Vestel Elektronik vs. Access Advance case, the Court of Appeal of England tried to stop this “forum shopping”. In the case, there was essentially no patent infringement activity in England; the sole contact with England was limited to the direct application to the English court to fix the rate of royalty for a technology standard being implemented by Vestel. The Court of Appeal determined that the court lacked jurisdiction to do so, and explained that without action for patent infringement, there would be no jurisdiction to invoke a FRAND defence. Thus, there was no jurisdiction to set a global FRAND rate.

Chinese courts that take on the cases as “contract disputes” and deploy ASIs which have the effect of interfering with foreign judgements or involving companies over which they do not have jurisdiction.

ASIs are emerging as a tool used by national courts to defend the interests of their national industries and perhaps could also be seen as a state aid or even an unfair trade practice, which isn't permitted by international trade treaties such as the WTO agreements and other multilateral agreements.

The widespread use of anti-suit injunctions in SEP disputes is quite recent. It is therefore important to understand the rationale adopted by Chinese courts when issuing ASIs.

The most well-known cases in China involving anti-suit injunctions are:

- Huawei vs. Conversant (Supreme People's Court - IP Court, September 2020);¹⁷
- Xiaomi vs. InterDigital (Wuhan Court, September 2020);¹⁸
- Samsung vs. Ericsson (Wuhan Court, December 2020).¹⁹

¹⁷ The Supreme People's Court of the People's Republic of China, Civil Ruling, of 28 August 2020 in Cases No. 732, No. 733 and No. 734, between Huawei Technology Co. LTD and Conversant Wireless Licensing S. à r.l. Huawei filed a lawsuit before the Nanjing Intermediary People's Court on SEP infringement and FRAND royalty determination. The Nanjing court made the first-instance judgment and Conversant appealed to the Supreme People's Court (SPC). A parallel SEP litigation was filed in Germany and the Dusseldorf court made the first-instance judgment, finding Huawei infringed Conversant's patent rights and that Conversant's licensing offer is consistent with its FRAND commitment.

The FRAND rate established by the Dusseldorf court is 18.3 times higher than the one determined by the Chinese court in Nanjing. For this reason, the Chinese court decided to issue an ASI to enjoin Conversant from enforcing the Dusseldorf judgment before the SPC made its final decision.

The Chinese judges stated that Conversant's act of enforcing the Dusseldorf judgment would hinder the judicial review pending in the Chinese courts. According to the judges it was thus reasonable and urgent to issue an injunction against Conversant; otherwise, Huawei would have suffered irrecoverable damages and the decisions of the Chinese courts would have been ineffective. The court further determined that the damages Huawei would have suffered if the injunction in Germany had been adopted significantly exceeded the damages that Conversant would have suffered if the SPC had issued the anti-suit injunction.

¹⁸ Wuhan Intermediate People's Court of Hubei Province, case (2020) E 01 Zhi Min Chu No.169. Xiaomi filed a lawsuit before the Wuhan Court to determine a global FRAND rate, and subsequently InterDigital applied for an injunction before the Indian court to prevent Xiaomi from implementing the Indian SEPs in the Indian market.

According to the Wuhan Court, InterDigital deliberately initiated the application for an injunction in the Indian proceedings to exclude the Chinese court's jurisdiction and offset the impact from the Wuhan case. The court considered that if InterDigital's application for an injunction was not stopped in time, the Indian court was likely to make a conflicting judgement with the Wuhan Court, which would severely harm Xiaomi's interests in the Indian market, creating irreparable damages. In contrast, the court determined that the issuance of an ASI would not cause any substantial damages to InterDigital and would not harm the public interest.

The Wuhan Court issued an ASI, which not only requested InterDigital to withdraw or suspend the injunction application before the Indian court, but also enjoined InterDigital from initiating any other proceedings in other national courts by applying for injunctive relief or FRAND rate determination.

¹⁹ Wuhan Intermediate People's Court of Hubei Province case (2020) E 01 Zhi Min Chu No. 743. Samsung filed a lawsuit in Wuhan Court to determine a global FRAND rate while Ericsson applied to the US district court for declaring Ericsson's offer FRAND and compliant with its FRAND commitment and ETSI IPR policy. Samsung applied thus for an ASI before the Wuhan Court.

This case applied the same logic as in Xiaomi (footnote 19). However, it is interesting because the Wuhan Court issued both an ASI, which prohibits Ericsson from applying and enforcing any injunction against Samsung and enjoins it

The elements assessed by the Chinese courts in these three cases, which in each case led to the ASI decision, can basically be summarized as follows:

- the possible impact of the enforcement of foreign court decisions on parallel litigations in China;
- the necessity to issue an ASI;
- an assessment as to whether the damage sustained by the applicant if an ASI is not issued exceeds the damage sustained by the respondent if an ASI is issued (balance the interests);
- a further assessment on whether issuing ASIs causes damages to public interests;
- the compliance of ASIs with the doctrine of comity.

It is regrettable that the courts in China seem to have an incomplete analysis of the concept of public interest. “Social public interest” should be considered not only with respect to the cost of products, but also the interest in always having new standards and improvements in the products. Not providing sufficient rewards to innovators, who have brought their patented technologies into the standards, obviously does not facilitate the goal of fostering innovation and having new and safer products available. This is the real public interest, which is also stated as the purpose of Patent Law in China.

National courts should issue decisions directed at their own territories, and not involving foreign companies or interfering in foreign litigation. Restraining a party from applying a foreign judgment in a foreign territory raises serious doubts as to its compatibility with comity and other principles of international law, as it purports to bind the courts in other countries. Giving due regard to territorial sovereignty is a fundamental principle of any legal system.

Disruptive actions like ASIs certainly disturb the innovation ecosystem with respect not only to the patent holders, who made significant investments in R&D and expect a reward for their new patented technologies, but also to the implementers, who have an economic interest in entering new product markets and need to legally use innovations.²⁰

from requesting other courts to set a FRAND license rate, and further issued an anti-anti-anti suit injunction (AAASI), which prohibits Ericsson from filing an AASI in other courts to revoke the Wuhan ASI application. However, Ericsson ignored the harsh sanction threats from Wuhan and immediately filed an AASI at the District Court of Texas, which issued a temporary restraining order and anti-interference injunction against Samsung.

²⁰ The question of anti-suit injunctions, including the geopolitical aspects, has been the subject of academic inquiry and considered views by practitioners. See for example Roberto Dini, Jing He & Mario Franzosi, *Anti-suit injunctions are a race to the bottom – and arbitration is the answer* (2022), IAM (2022); Jorge Contreras, *'Anti-Suit Injunctions and Jurisdictional Competition in Global FRAND Litigation: The Case for Judicial Restraint'*, (2022) 11 NYU Journal of Intellectual Property & Entertainment Law 171; and Mark Cohen, *China's Practice of Anti-Suit Injunctions in SEP Litigation: Transplant or False Friend?* (May 31, 2022) in Jonathan Barnett (ed), *5G and Beyond: Intellectual Property and Competition Policy in the Internet of Things*, available at SSRN: <<https://ssrn.com/abstract=4124618>> accessed 11 November 2022.

3.3 Applying for an ASI indicates unwillingness to take a FRAND license

As stated by the *Sisvel vs. Haier* decision, a prospective licensee must proactively act to reach an agreement with the patent holder within a reasonable period of time. Failure to do so could be considered an unwilling attitude and therefore the prospective licensee may face an injunction.

Considering this latest European jurisprudence, if a prospective licensee seeks an ASI rather than try to reach an agreement with the patent holder, the prospective licensee does not qualify as a willing licensee. In the dispute between *InterDigital vs. Xiaomi*, the Munich Regional Court considered the request for an ASI an interference with the property rights of the patentee and therefore a foreign ASI could not be accepted as a decision entitled to domestic application. Applying for an ASI indicates unwillingness to take a FRAND license. The court found that patent users willing to take a license would refrain from further unlawful interference with the patentee's legal positions. Therefore, a patent user, who applies for an ASI or threatens to do so, cannot be regarded as sufficiently willing to take a license within the meaning of the case law of the Court of Justice of the European Union and the German Federal Supreme Court.

To put an end to the spiral of ASIs, AASIs (Anti Anti Suit Injunctions), AAASIs (Anti Anti Anti Suit Injunctions), etc., the Munich Regional Court went a step further, holding the implementer punishable for this attempt to avoid the obligation to pay the royalties. The Court was very explicit: the implementer can indeed try to obtain an ASI, but the patent owner can also go back to the Munich Court, which will grant an injunction. This reasoning demonstrates that ASIs are not a proactive way to negotiate a FRAND royalty and so the court tries to re-balance the situation between the patent owners' FRAND declaration and no commitment from the implementers.

3.4 Phoenix Contact vs. Harting and the precautionary measures

Another interesting decision is the European Court of Justice recent ruling in the *Phoenix Contact vs. Harting* case (case ID: C-44/21).²¹ Responding to a referral from the Munich Regional Court, the CJEU affirmed that preliminary injunctions are available to patent owners even if the patent in suit has not yet survived an opposition or nullity action.

According to CJEU the granting of a patent, after a substantive examination, is sufficient to determine its validity. German courts, indeed, may grant a preliminary injunction in infringement cases even if the patent-in-suit is not yet proven valid in

²¹ The judgment is based on a referral made by the Munich Regional Court on an opposition filed by Harting against Phoenix Contact's patent EP 536. In the pertinent case, the judges considered the patent in suit, which had just been granted by the European Patent Office, as valid and infringed, but did not see themselves in the position to issue the requested injunction and instead referred the question to the European Court.

opposition or nullity proceedings. With this decision the CJEU declared incompatible with art. 9 of the EU Directive 2004/48/EC (Enforcement Directive)²² the German jurisprudence according to which the legal validity of a patent-in-suit is only sufficiently secured once it has survived first-instance opposition or revocation proceedings; it was thus incompatible with EU law by rejecting requests for precautionary measures for patent infringement on the basis that the validity of the patent has not yet been challenged.

The requirement for granting a preliminary injunction imposed by the German courts deprived patent owners of their right under this Directive to obtain injunctive relief, even though the patent in suit is valid and infringed. Additionally, a nullity suit could take years. During this period, the patent owner may have to tolerate a possible infringement. It would therefore make sense to merge the jurisdictions for infringement and validity, as envisaged by the Unified Patent Court (UPC), and as it is also common practice in other countries.

4 Patent pools for an industry-wide balance

In an effort to guarantee fairness to all stakeholders and restore a balanced approach to licensing, the ecosystem should focus on solving the issue of the so-called “unwilling licensees” at the source, providing certainty and predictability to the licensing offer.

A tool to enhance efficiency is aggregation of patents essential to a standard through patent pools or joint licensing programs; this form of patent aggregation could have a key role in simplifying licensing transactions.

With technology becoming more complex and sophisticated every day, implementers often rely on broad-based standards to ensure that their products will be interoperable in the global marketplace. In this environment, it is not uncommon for patents belonging to different owners to be present within a single standardised technology; at the same time, no one is keen on having to obtain multiple licenses from multiple sources covering the same technology. If every patent owner was to

²² Enforcement Directive (Directive 2004/48), Article 9 - Provisional and precautionary measures.

1. Member States shall ensure that the judicial authorities may, at the request of the applicant:

- (a) issue against the alleged infringer an interlocutory injunction intended to prevent any imminent infringement of an intellectual property right, or to forbid, on a provisional basis and subject, where appropriate, to a recurring penalty payment where provided for by national law, the continuation of the alleged infringements of that right, or to make such continuation subject to the lodging of guarantees intended to ensure the compensation of the right holder; an interlocutory injunction may also be issued, under the same conditions, against an intermediary whose services are being used by a third party to infringe an intellectual property right; injunctions against intermediaries whose services are used by a third party to infringe a copyright or a related right are covered by Directive 2001/29/EC.

Directive 2004/48/EC of 29 April 2004 on the enforcement of intellectual property rights [2004] OJ L 195/16 available at <[https://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=CELEX:32004L0048R\(01\):EN:HTML](https://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=CELEX:32004L0048R(01):EN:HTML)> accessed 11 November 2022.

individually ask for a royalty fee for his patents, the price would soon escalate. Additionally, the requirement to negotiate a separate license with each patent owner would be extremely time consuming and expensive.

This has resulted in a growing interest in the formation of patent pools. While in the past the word “pool” has had negative antitrust connotations and has been seen as an attempt to control the market, this is not the case for today’s patent pools. A patent pool facilitates technology licensing by creating a “one stop shop” solution, which means that a single license agreement grants the right to use a portfolio of patents essential for implementing a certain standardised technology owned by multiple patent holders.

There is growing recognition that patent pools encourage free competition and economic-technological development. Firstly, they decrease the price compared with the cost that would be derived if multiple licenses had to be negotiated individually by each implementer. In addition, they reduce transaction and administrative costs, providing certainty and predictability to the market and ensure fair and non-discriminatory licensing of essential patents through an independent, professional patent pool administrator.

A successful patent pool must be attractive for both large and small licensors and offer all licensees a competitive licensing solution. To attract licensors, the pool should endorse a transparent and inclusive process to build consensus and encourage participation in the pool. In order to achieve wide acceptance among licensees, a patent pool should offer a value-based license, include administrative tools that enhance efficiency, and make the reporting and payment process straightforward. It should also take into consideration enforcement and compliance mechanisms to reassure licensees that all companies using the technology are licensed and paying the same royalties.

Finally, patent pools facilitate the determination of a fair and acceptable royalty rate, as in some cases licensors in the pool are also licensees of the patents administered by the pool. As a result, the royalty level accepted by the members of the pool that are also implementers should as such be also accepted by the market, reducing friction among patent owners and implementers and promoting efficient licensing transactions.

Patent pooling is widely recognized as the “go-to” form of aggregation and was promoted by several tests of antitrust authorities. It should be noted that the European Commission, in its communication of 29 November 2017 to the European Parliament about setting out the EU approach to Standard Essential Patents, stated: “For instance, the creation of pools may be encouraged by means of measures such as strengthening the relationship between SDOs and pools, providing incentives to participation and

making universities and SMEs more aware of the advantages of becoming a licensor in a pool".²³

A new form of aggregation – the licensing negotiation groups - is promoted by implementers as having similar benefits, but they remain untested, and they seem likely to raise ample antitrust concerns.

4.1 A possible role for SSOs (Standard Setting Organizations)

Pools or licensing programs should be established in the early stages of the standardization process and discussions regarding licensing frameworks should also ideally be introduced immediately after the completion of the process. One way in which governmental authorities and SSOs can provide their support is by fostering or encouraging the formation of patent pools.

The Digital Video Broadcasting Project (DVB) is an example of a SSO that fosters pool formation. Fostering is a process in which SEP holders are encouraged to consider creating a pool covering a specification. In essence, it speeds up pool formation. It is a pre-commercial process that takes place before patent pool facilitation.

In this respect, DVB has always been very active and supportive of early licensing discussions, with the twofold objective of ensuring technology adoption and balancing the needs of both innovators and implementers. In other words, at an early stage of the adoption of the standard, the fostering by a standardization body to encourage patentees to take initial steps towards pool formation means that the cost for IPR use can be as easily accounted for by the implementers as raw material expenses.²⁴

4.2 The importance of patent pools in assuring licensing of strong patents at a fair price

Over the last decades, an increasing number of patents have been declared essential to a standard by patent owners without providing any evidence of essentiality and this has caused the problem of over-declaration.

To avoid accusations of patent ambush or patent misuse, patent holders may feel compelled to declare their patents or patent applications even if they are not certain regarding their essentiality or validity (or whether a standard under development will ultimately include their patented innovation). Many of them declare their SEPs even when the patent application is still in the prosecution process; if a patent's scope is then

²³ Setting Out the EU approach to Standard Essential Patents <<https://ec.europa.eu/docsroom/documents/26583>> accessed 11 November 2022.

²⁴ Eltzroth, Carter, 'Fostering by Standards Bodies of the Formation of Patent Pools' (December 5, 2018), available at SSRN: <<https://ssrn.com/abstract=3296514>> accessed 11 November 2022.

narrowed down, it may no longer be considered essential or if a patent application is rejected, obviously, it cannot be essential. Some less scrupulous patent owners may deliberately declare their patents to be essential so that they can present a stronger portfolio during licensing negotiations.

Fortunately, patent pools help to solve this situation. In fact, before including a SEP in a pool the following two conditions must be met:

- the patent must be granted by an institution that operates a substantive examination like the EPO (European Patent Office), the USPTO (United States Patent and Trademark Office) or comparable patent office. This concept has also been underlined in the recent CJEU decision in the Phoenix Contact vs. Harting case discussed above, which stated that injunctions should also be made available to patents even if never challenged or opposed, because the granting of such patents by a patent office that carries out a substantive examination should be per se proof of their validity;
- for each jurisdiction where a patent has been granted after a substantive examination, the patent owner must also provide the patent pool administrator with an opinion on the essentiality of the patent provided by an independent and accredited third-party patent expert (i.e., who has never worked for the patent owner).

Moreover, the independence of the administrator (including the administrator's controlling shareholders) is another important element to safeguard the efficiency of patent pools and avoid potential antitrust risks. Licensing administrators that are independent from the patent owners and licensees foster the pools in full compliance with the law. They have an interest in granting licenses and preventing patent owners from using the pool to disadvantage competitors in downstream markets. In addition, they establish mechanisms to prevent patent owners from exchanging information among themselves and from directly accessing licensees' sensitive business information.

All this demonstrates that inside a patent pool strong patents are licensed at a fair price and administered by an independent entity in conformity with competition law.

5 ADR to solve FRAND disputes and avoid delaying tactics

In today's market, technologies are complex and products increasingly feature-rich. As previously mentioned, mobile phones are no longer just used for making calls, but rather offer consumers a vast range of other functions, such as internet connectivity, geolocation, photography, etc. The same is also happening in the automotive industry where cars are no longer just means of transport, but also ways to interface with infrastructures and to communicate with users outside the car. This increase in

functionalities available to the end user, relying on standardised technologies and interoperability, leads to an increase in the number of essential patents which protect the rights of the innovators who make such features available on the market.

An unprecedented number of standards are under development and increasingly more technical contributions are made to those standards. Likewise, there is an increasing number of worldwide SEP infringement litigations that, rather than foster clarity and transparency in the negotiation process, creates more uncertainty.

Given the challenging situation, if negotiation fails, instead of expensive and lengthy multi-jurisdictional court litigations, the most effective and efficient way to ensure that global FRAND rates are determined fairly and free from industrial and geopolitical influences such as Anti-Suit Injunctions, is to use international arbitration and mediation bodies like the WIPO Mediation and Arbitration Center²⁵ or the International Arbitration Center in Tokyo (IACT).²⁶

Arbitration and other forms of alternative dispute resolution (ADR) offer a valuable resolution mechanism for disputes, which involve a multitude of patents and span several jurisdictions. These alternative solutions provide high efficiency at a reasonably low-cost. ADR tools can cover entire SEP portfolios as the territoriality principle does not hinder arbitration tribunals from considering patent cases from various jurisdictions, which is more efficient than court proceedings. Furthermore, arbitration enables parties to choose arbitrators with the necessary expertise for SEP/FRAND disputes, not only from a legal perspective but also from a technical and economic point of view. Finally, the New York Convention offers a regime for the enforcement and recognition of arbitral awards and provides a promising resolution with respect to the stalemate of ASIs in court proceedings.

Arbitration reduces the costs of litigation and has the advantage of solving once and for all the problem of how to determine the value of SEP royalty rates. However, in reality, arbitration, as an alternative to court disputes, has yielded so far mixed results. Anecdotal evidence shows that Chinese parties have a general suspicion concerning arbitration outside China or have more confidence in their domestic courts.

Courts, SSOs and governmental institutions like the European Commission and the national competition authorities have a fundamental role to stop market distortion and support the standard-based innovation ecosystems by promoting for instance arbitration as the most suitable tool to establish a fair global royalty rate.

Moreover, standard setting organizations could for instance encourage arbitration among their members. As they are consensual bodies, they cannot impose a

²⁵ For additional information on the WIPO ADR services, see <<https://www.wipo.int/amc/en/>> accessed 11 November 2022.

²⁶ For additional information on the International Arbitration Center in Tokyo (IACT), see <<https://www.iactokyo.com/>> accessed 11 November 2022.

requirement to arbitrate.²⁷ However, they could ask for a declaration of willingness to arbitrate from their members. Some companies already offer the ADR tool, including mediation requests, to solve the issue of determining the FRAND royalty rate. For instance, Sisvel in principle offers arbitration and mediation to every prospective licensee.²⁸

Competition authorities have also a significant role to play. To address hold-out and hold-up behaviours and the market distortions that they may cause, they should recognise that it is in the interest of well-functioning markets for both patentees and implementers to resolve their disputes through alternative dispute resolution mechanisms in case there is no agreement on the FRAND royalty rate.

Finally, to foster the use of international arbitration, national judges called to decide on SEP matters could use their procedures quite powerfully to push people into arbitration as a sign of good faith and willingness in FRAND disputes. If implementers were to refuse to arbitrate or use some other form of alternative dispute resolution, their attitude should be considered as clear proof of being an efficient infringer and, thus, an unwilling licensee.

To find convergence in this world of FRAND and make arbitration more acceptable than any national courts, it is very important that all the arbitrators come from different countries. One of the current troubles in perception is that national courts are just that, “national.” Therefore, it is important to have a pool of international arbitrators in order to have a broader and more acceptable decision. The WIPO Arbitration and Mediation Center for instance offers a platform specifically tailored for FRAND disputes which

²⁷ Of course, a standards bodies could adopt, as a requirement of membership, a provision requiring that its members arbitrate licensing disputes. DVB has adopted such a measure. DVB Project, Memorandum of Understanding further amended and restated for the development of harmonized Digital Video Broadcasting (DVB) services based on European specifications (2014), available at DVB Memorandum of Understanding (3 January 2014). Article 14.7 provides for arbitration between DVB members in disputes over adherence to DVB’s IPR policy, for example whether one member is respecting its FRAND commitment. Of course, this does not handle the case where one party is not an SSO member and so not compelled to arbitrate. Arbitration of SEP disputes is once again *à la mode*. See for example Peter Picht and Gaspare Loderer, ‘Arbitration in SEP/FRAND Disputes: Overview and Core Issues’ (2019) 36 *Journal of International Arbitration* 575. For an earlier treatment (and discussion of DVB’s arbitration provisions), see Carter Eltzroth, ‘Arbitration of Intellectual Property Disputes’ (January 2014) 19 *Arbitration News: Newsletter of the International Bar Association Legal Practice Division* 86, February 2014, available at SSRN <<https://ssrn.com/abstract=2406458>> accessed 11 November 2022.

²⁸ As part of its mediation services, WIPO offers the option that a single potential party can commence proceedings. Art 4(a) of the WIPO Mediation Rules provides, “In the absence of a Mediation Agreement, a party that wishes to propose submitting a dispute to mediation shall submit a Request for Mediation in writing to the Center. It shall at the same time send a copy of the Request for Mediation to the other party” (WIPO, WIPO Mediation Rules (2022), Rule 4. Making such a Request, together with its sending to the other party, could be considered steps consistent with the framework for FRAND negotiations developed by German courts. WIPO reports that its services were invoked related to licensing negotiations between a patent pool administrator and implementers in the course of ongoing unsuccessful patent licensing negotiations. The cases involved parties from 23 jurisdictions. WIPO notes, “Mediation requests prompted renewed licensing negotiations” which concluded successfully. Ignacio de Castro, ‘Strategic Use of ADR to Resolve FRAND / SEP Disputes’ (21 Oct 2022), Presentation at Global FRAND & SEP Symposium (Mountain View).

gives parties leeway to shape the procedure and even avails a database of more than 2000 neutral experts for parties to choose from.

6 Conclusion: How to Support the Standards-based Innovation Ecosystem

In the 5G and IoT era, standardization is fundamental to allow interoperability, but often results in a complex licensing landscape. There is indeed a strong need to reduce this complexity and motivate innovators to continue developing new technologies and standards to the benefit of technological progress and social welfare.

The governmental authorities, standard setting organizations and courts have a fundamental role to support the standards-based innovation ecosystems, avoiding market distortions and ensuring a balance between the interests of the users of standards and the rights of IP owners.

First of all, they have to address the imbalance that implementers are not currently making any commitment symmetrical to the FRAND obligation. As stated, the FRAND declaration is a commitment by the patent owners to provide access to their patented technologies under fair, reasonable, and non-discriminatory terms. However, so far, it is not sufficiently clarified which are the duties of the prospective licensee and this lack of clarity leads to hold-out behaviours and market distortion by implementers.

Luckily, the last generation of SSOs and several recent court decisions have tried to solve this issue. For instance, the *Sisvel vs. Haier* decision in Germany ruled that after receiving a notice of infringement of a SEP and a FRAND offer the implementer must act proactively to reach an agreement with the patent holder in a reasonable time. Otherwise, this behaviour may be recognized as “unwilling” and subject to a possible injunction or damages without a FRAND limitation.

Competition authorities should also look at the problem of “non payers”, because it is unfair and anti-competitive when some implementers pay, and others, either singly or through concerted practices such as the “component level licensing” approach, act as free-riders.

Finally, the fact that some countries have used their regulatory authorities and courts to regulate pricing in favour of national companies and national interests must be recognized and addressed: They tilt the playing field and create their own rules. For example, over the years, the Chinese government has subsidized its industries. Chinese implementers could thus offer lower prices, afford long and expensive litigations that accompany hold-out behaviour and, through anti-suit injunctions, even seek to overturn and prevent unfavourable foreign court decisions, even if they are considered to be legally correct.

Failing to recognise and solve these issues may discourage innovators from investing in new research. Alternatively, they may decide to avoid participation in the standardization process and revert to proprietary, closed solutions, or trade secrets and this will certainly have a negative impact on technical progress and society well-being.