

COLLABORATIVE STANDARDISATION AND SEP LICENSING: A EU POLICY PERSPECTIVE¹

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1. Collaborative Standardisation in the Digital Single Market Strategy

Standards developed via a collaborative, consensus-driven process and made available to the general public are at the core of the European Union (EU) strategy for economic growth. They create trust in products and services and facilitate comparisons of their performance and safety level. When adopted within the European framework of harmonized standardisation, standards entail a presumption of conformity to technical requirements mandated by EU legislation, thus supporting EU policy and regulation.² Moreover, collaborative standards improve market dynamics by encouraging and spreading innovation, preventing duplication of efforts, ensuring interoperability, expanding existing markets and opening up new ones.

In recent years, standardisation and access to standards have come to play a crucial role in the Digital Single Market Strategy, aimed at accompanying the digital transformation of the economy and society to maximize its potential benefits for undertakings and citizens.

In particular, standardisation is key to meet the increasing interoperability needs of the Internet of Things (IoT). It ensures seamless communication between digital components like devices, networks or data repositories, as well as more efficient connections along the supply chain, across sectors, across borders, between communities and between public services and authorities. Without interoperability, for instance, it would be impossible to develop connected

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² A harmonized standard is a standard adopted by a recognised European standardisation organisation (European Committee for Standardisation - CEN, European Committee for Electrotechnical Standardisation - CENELEC, European Telecommunication Standard Institute - ETSI) on the basis of a request made by the EU Commission for the application of Union harmonisation legislation. The presumption of conformity with the essential requirements established by the harmonisation directives is based on the “New Approach” legislative technique approved by the Council of Ministers on 7 May 1985 in its *Resolution on a New Approach to Technical Harmonisation and Standards*.

cars and, according to some estimates, 40 % of the potential benefits of the IoT would not be attained.³

However, digital developments raise specific challenges for standardisation policy. The pace and scope of the digital transformation necessitates flexible and sufficiently fast standardisation processes. The setting of standards for the next generation of communication technologies (5G) and the IoT requires the cooperation of different standard development organisations (SDOs) and groups. Moreover, with the IoT, an unprecedentedly broad set of sectors and enterprises, including players who are unfamiliar with the traditional information and communication technology (ICT) business, will need access to standardised technologies and thus will be involved in standard essential patent (SEP) licensing negotiations.

In this context, in the Digital Single Market Strategy, the European Commission stresses the importance of standardisation policy and a balanced and efficient framework for the licensing of SEPs for the competitiveness of the European economy.⁴

While acknowledging that standardisation will remain primarily industry-led, voluntary and consensus-driven, the Commission has identified a set of ICT standardisation priorities for the Digital Single Market, with the aim of fostering new initiatives and stronger cooperation between standardisation organisations in the ICT area.⁵ The priority areas include cloud computing, IoT, 5G communication networks, cybersecurity and big data technologies, which are considered the building blocks of the Digital Single Market. Since technologies converge, a European leadership in standard setting for the building blocks would entail benefits in several other areas, such as eHealth, smart energy, intelligent transport systems, advanced manufacturing, smart homes and cities and smart farming.

At the same time, in order to deal with the increasing complexity of the standards landscape, the Commission encourages the mapping of all the relevant standardisation initiatives in the different areas, so as to avoid duplication of efforts, reach a better coordination, identify standardisation gaps and thus improve the effectiveness of standardisation policy.⁶

As to the intellectual property (IP) policies of standard development organizations and SEP licensing, the Commission envisages a ‘fast, predictable, efficient and globally acceptable licensing approach which ensures a fair return on investment for SEP holders and fair access to SEPs for all players, especially SMEs’.⁷

³ McKinsey Global Institute (2015), *The Internet of Things: Mapping the Value Beyond the Hype*. According to this report, by 2025 the potential economic impact of IoT worldwide ranges from USD 3.9 trillion to USD 11.1 trillion per year.

⁴ Communication from the Commission, *A Digital Single Market Strategy for Europe*, COM(2015) 192 final.

⁵ Communication from the Commission, *ICT Standardisation Priorities for the Digital Single Market*, COM(2016) 176 final.

⁶For instance, the Commission has set up a Working Group (MSP/DEI WG) with all interested stakeholders, with the task of identifying the standardisation needs for smart manufacturing, mapping the ongoing activities and presenting recommendations in order to synchronise the various activities at the national and European level and suggest concrete actions which may be included in the Rolling Plan for the ICT standardisation. On this initiative, see <https://ec.europa.eu/digital-single-market/en/news/report-workshop-standardisation-support-digitising-european-industry-initiative>.

⁷ COM(2016) 176 final, p. 13.

In this chapter, we provide an overview of the EU initiatives undertaken in recent years to ensure effective and timely standard-setting procedures, foster investment in technologies to be included in standards and support the implementation of standards into new products and services. The starting point of our analysis is that establishing an innovation and growth-friendly environment is not only a matter of sectoral legislation, but also a matter of how the different players (undertakings, SDOs, competition authorities and courts) actually operate within the more general framework of IP law, contract law and competition law.

We start considering how competition rules have been used by the European Commission, with respect to both collaborative standard setting and to SEP licensing, as a tool to promote some convergence at the EU level and how the Huawei judgment of the Court of Justice has affected this process, even beyond the boundaries of competition law (paragraph 1). Then, we illustrate the initiatives in the area of patents and standards undertaken by two Directorates-General of the European Commission, i.e. DG Growth and DG Connect (paragraph 2), and analyse the Communication on the EU approach to SEPs issued by the Commission in November 2017 (paragraph 3). Finally, we discuss the remaining challenges for EU policy in this area, looking at the impact it may have at the global level (paragraph 4).

2. *The Role of Competition Policy*

For the European Standardisation System, the EU legislation sets out a detailed legal framework, which has been updated in 2012 with the adoption of Regulation no. 1025/2012.⁸ This framework, however, is limited in scope: it applies only to recognised standard-setting organisations at the international, European and national level and focuses mainly on the openness, transparency and celerity of procedures. The task of designing IP policies and rules is left to standard-setting organisations.⁹

In this context, competition law has come to play a complementary role in defining a common framework at the EU level for collaborative standard setting.

The starting point is that when competitors or potential competitors cooperate to establish a standard, in principle the agreement may fall within the prohibition set forth by Article 101 of the Treaty on the Functioning of the European Union (TFEU). Potential restrictive effects on competition include a reduction in price competition, the foreclosure of innovative technologies, the exclusion of, or the discrimination against, certain companies by preventing effective access to the standard. In this context, in its Guidelines on Horizontal Cooperation Agreements, the Commission sets out a number of requirements which, if met, exclude that the agreement restricts competition.¹⁰ By establishing this safe harbour, the Commission indirectly encourages

⁸ Regulation (EU) no. 1025/2012 of the European Parliament and of the Council of 25 October 2012 on European Standardisation.

⁹ Regulation (EU) no. 1025/2012 contains some intellectual property rules only for ICT technical specifications which may be eligible for referencing in public procurement.

¹⁰ Communication from the Commission, *Guidelines on the Applicability of Article 101 TFEU to Horizontal Cooperation Agreements*, 2011/C 11/01.

the adoption of open and non-discriminatory standard setting and licensing procedures. In particular, ‘where participation in standard-setting is unrestricted and the procedure for adopting the standard in question is transparent, standardisation agreements which contain no obligation to comply with the standard and provide access to the standard on fair, reasonable and non-discriminatory terms will normally not restrict competition within the meaning of Article 101(1)’.¹¹

More recently, following a similar approach, in the Samsung and Motorola cases the Commission has applied the prohibition of abuse of dominance pursuant to Article 102 TFEU to steer negotiations between SEP holders and implementers of the standard. In particular, the Commission has argued that, in specific circumstances, seeking an injunction against an alleged infringer of the SEP may be considered an abuse of a dominant position.¹²

In 2015, the European Court of Justice stepped in, with its Huawei preliminary ruling in which it set the legal standard for assessing whether seeking an injunctive relief violates Article 102 TFEU.¹³ In particular, in Huawei, the Court of Justice specifies the conditions under which a technology contributor who has committed to license a SEP on fair, reasonable and non-discriminatory (FRAND) terms is entitled to seek an injunction against an implementer of the standard without infringing Article 102 TFEU. From the point of view of the implementer, the Huawei judgment indicates the conditions to be followed in order to avert injunctive relief.

The Huawei framework contemplates the following steps:

- The patentee should alert the alleged infringer of the infringement complained about.
- After the alleged infringer has expressed his willingness to conclude an agreement on FRAND terms, the patentee should present the infringer a specific, written offer for a license on FRAND terms, indicating in particular how the royalty is to be calculated.
- The patentee can bring an action for a prohibitory injunction only if the alleged infringer continues to use the patent and has not diligently responded to the offer with a counter-offer reasonably FRAND or, if the counter-offer is rejected, uses the teachings of the SEP without providing appropriate security.

The Huawei judgment focuses on exclusionary abuses; the Court expressly relates the exceptional circumstances whereby the exercise of an exclusive right linked to an intellectual property right (IPR) may involve an abusive conduct to the exclusion of competitors from access to the SEP.¹⁴ However, in the post-Huawei case law, the procedural steps indicated by the Court of Justice are being used by national courts also in cases where the SEP holder is a non-practising entity (NPE), i.e., is not a competitor of the implementer of the standard. In such

¹¹ Guidelines on Horizontal Cooperation Agreements, para. 280.

¹² Commission decision of 29 April 2014, Case AT.39939, *Samsung – enforcement of UMTS standard essential patents*; Commission decision of 29 April 2014, Case AT.39985, *Motorola – enforcement of GPRS standard essential patents*.

¹³ European Court of Justice, Case C-170/13, *Huawei Technologies Co. Ltd v ZTE Corp and ZTE Deutschland GmbH*.

¹⁴ *Ibid.*, para. 56.

cases, the scenario of an exclusionary abuse can be excluded, and the issue mainly concerns the fairness of the negotiation between the parties in view of the FRAND commitment.

Indeed, as argued by Larouche and Zingales,¹⁵ the Huawei choreography is broadly sufficient to ensure a proper balance between predictability for stakeholders and differentiation between possible scenarios, ensuring the availability of injunctive relief in suitable cases while protecting implementers against inappropriate claims for an injunction. In particular, if the scenario is one of hold out (the implementer seeks to avoid a FRAND royalty), the procedure prevents the implementer from gaming competition law by merely declaring that he is willing to negotiate. On the other hand, in an exclusionary scenario, the procedure can prevent the SEP holder from improperly using its SEP to foreclose a competitor by means of injunctive relief. Moreover, although the Court of Justice does not address the hold-up scenario (excessive price concerns), the Huawei procedure may be used to ensure that the result of the negotiation (offer plus counter-offer) is consistent with the FRAND commitment. Thus, as observed by Larouche and Zingales, the ‘subsequent case-law has unmoored Huawei from competition law and is turning it into a stand-alone *lex specialis* for injunctions in FRAND litigation cases’.

At the same time, it was soon acknowledged that the Huawei judgment leaves some matters unresolved, relating both to the interpretation/application of the Huawei principles and to how FRAND conditions should be determined.¹⁶ For instance, Huawei does not indicate what kind of scrutiny should be carried out by the Court in the second step of the procedure, with respect to the offer made by the SEP holder (FRAND or only ‘clearly not FRAND’ since the implementer is sufficiently protected by the possibility to reject the offer and present a counter-offer). Other issues not fully resolved in Huawei include whether the alert and the offer can be made at the same time, whether the patentee can require the implementer to enter into a non-disclosure agreement prior to making the offer, how a court should proceed when the defendant contends that the patent is invalid, whether the offer can concern the patentee’s entire worldwide portfolio of SEPs for the standard concerned if this is the industry practice and how the royalty base should be chosen. These issues are often addressed in SEP litigation before national courts.¹⁷

3. *The Initiatives of DG Growth and DG Connect*

As anticipated, EU legislation does not set common rules on the IP policies of SDOs. Currently, most IP policies include both a transparency obligation on technology contributors, which are required to disclose all patents relevant to the standard, and the commitment to

¹⁵ P. Larouche, N. Zingales (2017), *Injunctive Relief in FRAND Disputes in the EU – Intellectual Property and Competition Law at the Remedies Stage*, https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2909708

¹⁶ See, for instance, R. Jacob, A. Milner (2016), *Lessons from Huawei v. ZTE*, available at https://www.4ipcouncil.com/download_file/view_inline/182.

¹⁷ A database containing summaries of the national court decisions in English rendered after the Huawei judgment is available at <https://caselaw.4ipcouncil.com/>.

licence SEPs on FRAND terms. These policies may evolve, to adapt to new challenges and reflect best practices. At the same time, a complete convergence may not be desirable, since some variance can be justified by the technological and economic features of the different areas.

While maintaining in principle a hands-off approach with respect to IP policies of SDOs, after the adoption of Regulation no. 1025/2012 the Commission has been keeping the interplay between standardisation and patents among the issues deserving a more in-depth understanding, by means of further collection of evidence and research activities. In the last decade, the IP landscape in the information technology sector has been significantly affected by fierce competition among major platforms in a context of technological convergence, the entry of new competitors and major acquisitions of patent portfolios. Although innovation continued on a rapid pace, with clear benefits for consumers, these developments were accompanied by a wave of IP litigation all over the world, including cases of SEP litigation between major companies, with large press exposure. In this context, DG Growth and DG Connect undertook several initiatives to increase awareness of the new challenges and ascertaining whether EU policy is adequate or, instead, needs some adjustments.

3.1. The Consultation on Patents and Standards

A first Report on Patents and Standards, commissioned by DG Growth, was published in 2014¹⁸. It was followed by a public consultation aimed at gathering evidence of any shortcomings concerning either the inclusion of patented technologies in standard-setting processes or the licensing of SEPs. The consultation addressed, *inter alia*, the issue of transparency of the patents relevant to the standard, whether the FRAND commitment should be transferred in case of change of SEP ownership, the role of patent pools, the notion of FRAND terms and conditions, the mechanisms for patent dispute resolution. The Commission received more than one hundred contributions, revealing a significant interest for the topic among stakeholders.¹⁹

3.2. The JRC Reports on Patent Assertion Entities and SEP Licensing Terms

In 2013, DG Connect and the Joint Research Centre (JRC) of the European Commission launched a broad three-year research project on European Innovation Policies for the Digital Shift (Euripidis). In this context, they promoted two JRC ‘Science for Policy’ Reports, one on

¹⁸ Ecorys (2014), *Patents and Standards – A Modern Framework for IPR Based Standardization*, report prepared for the European Commission, <http://ec.europa.eu/DocsRoom/documents/4843/attachments/1/translations>.

¹⁹ A summary report on the results of the public consultation is available at http://ec.europa.eu/growth/content/public-consultation-patents-and-standards-modern-framework-standardisation-involving_en.

Patent Assertion Entities in Europe (2016)²⁰ and the other on Licensing Terms of Standard Essential Patents (2017).²¹

The first Report focuses on patent owners who do not manufacture or use the patented invention but seek to enforce their rights through the negotiation of licenses and litigation. These entities are known as NPEs or Patent Assertion Entities (PAEs), reminding that they often have an assertive attitude in enforcing their rights. The impact of PAEs on markets and innovation is controversial.²² The JRC Report underlines that PAEs can play a positive role in the system, by providing innovators with effective patent monetisation options and by increasing the liquidity of patent markets; however, patent assertion may also spur litigation, imposing additional costs on the innovation ecosystem. The Report on PAEs highlights that the US patent system, with high litigation costs and large availability of funds, has traditionally been more conducive to PAEs than the European patent system. Features such as strict validity criteria for patents and a “loser pays system” may reduce concerns on the activity of NPEs in Europe.

The goal of the second JRC Report, on SEP licensing terms, is to provide a consistent framework for both the interpretation of FRAND commitments and the definition of FRAND royalties. In particular, it carries out a critical analysis of decisions taken by courts and competition authorities in Europe and worldwide, discussing the economic soundness of the relevant concepts and methodologies.

As to the main results, the Report argues that the theoretical concepts behind FRAND merely allow for the definition of a potentially wide range of FRAND rates; there is no accepted methodology for singling out a unique value within the range. However, it is possible to identify some benchmarks which should be taken into account when assessing whether a term is FRAND. Such benchmarks include:

- the outcome of a hypothetical bilateral negotiation between the patentee and the implementer when the latter is not irreversibly bound to using the standard;
- the ex ante value of the patented features before inclusion in the standard; and
- the incremental value contributed by the patented features to the product.

²⁰ Europe Economics (2016), *Patent Assertion Entities in Europe – Their Impact on Innovation and Knowledge Transfer in ICT Markets*, JRC Science for Policy Report <http://publications.jrc.ec.europa.eu/repository/bitstream/JRC103321/lfn28145enn.pdf>

²¹ C. Pentheroudakis, J. A. Baron (2017), *Licensing Terms of Standard Essential Patents – A Comprehensive Analysis of Cases*, JRC Science for Policy Report <http://publications.jrc.ec.europa.eu/repository/bitstream/JRC104068/jrc104068%20online.pdf>

²² Some authors, in order to stress the potentially harmful nature of PAEs, use expressions such as patent trolls, patent extortionists, patent sharks. See for instance M. Reitzing, J. Henkel and C. Heath (2007), *On Sharks, Trolls and their Patent Prey – Unrealistic Damage Awards and Firms’ Strategies of “Being Infringed”*, in *Research Policy*, vol. 36, issue 1, pp. 134-154. For a different view, see J. F. McDonough (2006), *The Myth of the Patent Troll: An Alternative View of the Function of Patent Dealers in an Idea Economy*, *Emory Law Journal*, vol. 56, p. 189, available at SSRN: <https://ssrn.com/abstract=959945>.

As to the principles to be followed in FRAND determination, the JRC Report stresses that, while taking into account concerns of royalty stacking and hold up, FRAND should preserve the incentives to invent and contribute the patented technology to the standard and to adopt standards including patented technologies.

In practice, the boundaries of the FRAND range are determined by comparison of actual data with counterfactual scenarios on the basis of assumptions. Data on product market prices give information on the upper bound of the range, whereas data on comparable licenses give information on some individual points of the wider range of acceptable agreements.

Some courts, especially in the US, have developed evidentiary rules which place restrictions on the methodologies that can be used for calculating FRAND with the aim to identify a specific fair value for royalties (e.g. entire market value royalties – EMVR, or smallest saleable patent practising unit – SSPPU) and restrict the set of comparable licenses. The JRC Report argues that often such restrictions are not fully justified in view of FRAND principles.

The general conclusion is that a good policy for SEP licensing should focus on supporting market mechanisms and conditions conducive to fair bilateral negotiations as early as possible, rather than trying to determine specific FRAND values.

3.3. The CRA Report on Standardisation and SEP Licensing

After carrying out the public consultation on patents and standards, DG Growth commissioned a study to assess the economic issues related to standardisation and SEP licensing and to discuss the policy options which may foster an efficient operation of the system, taking into account their costs and benefits (the ‘Charles River Associates - CRA Report’).²³

The CRA Report outlines a set of proposals for reform, including some prescriptive measures not always fully aligned with the JRC Report on SEP licensing.

As to the inclusion of patented technologies in standards, the Report suggests that SDO participants should be required to make a negative ex ante declaration of their patents and patent applications with the understanding that all IPRs which are not singled out for exception are available on FRAND terms.

On the FRAND issue, the CRA Report is not meant to contribute to the conceptual debate but envisages, as a practical solution to reduce transaction costs, that patent holders voluntary

²³ P. Régibeau, R. De Coninck and H. Zenger (CRA), (2016), *Transparency, Predictability, and Efficiency of SSOs-based Standardization and SEP Licensing – A Report for the European Commission*, https://www.crai.com/sites/default/files/publications/Transparency_predictability_efficiency.pdf.

declare *ex ante* a maximum royalty rate at which their SEP portfolio would be licensed. Moreover, the Report suggests, as an additional or stand-alone measure, that SDOs members agree on the maximum total royalty to get access to all IPRs which are not singled out for exception and are reading on the standard.²⁴ In addition, in order to facilitate the licensing process, SDOs are encouraged to select one or more patent pool management companies, which the SEP holders, on a voluntary basis, may wish to join for licensing their standard-related IP portfolio.

For the sake of transparency, the CRA Report envisages that once the standard is established, patent holders should be required to submit a list of the patents and patent applications which, in their view, read on specific aspects of the standard, although not going as far as requiring a detailed claim map. The relevant information should be entered into a database, that might be administered by the EPO. Moreover, in order to improve the quality of SEP declarations, the authors envisage some random testing of whether the declared SEPs are, indeed, essential to the standard.

As to the appropriate royalty base, the CRA Report stresses that economic analysis does not suggest that there is a type of royalty base (broad or narrow) which is most efficient in all contexts. Broad bases may be preferable when the licensed technology affects a significant proportion of the value-inducing functionalities of the downstream devices, whereas narrow bases may be appropriate when the impact of the technology is limited to a few well-defined aspects of the downstream product. Thus, the authors expressly invite the European Commission to ‘re-state its basic agnosticism on the matter and to communicate it sees efforts to bind SEP holders and implementers to specific royalty bases as misguided’.²⁵ As to the level of the vertical chain at which licensing should occur, the approach is similar: the most efficient solution may vary depending on the sector and standard involved. In particular, when a standard affects significantly different fields, licensing upstream may prevent charging different rates for different uses, and thus there is an efficiency reason for licensing only final implementers.

Finally, with reference to dispute resolution, the Report observes that recent rulings by national courts have succeeded in reaching a reasonable balance between the interests of licensors and licensees. Arbitration procedures can play a complementary role and be designed in a way which incentivises the parties to make reasonable offers in the first place. The arbitration procedures, however, should remain voluntary; access to the judicial route is essential to allow the emergence of a publicly available jurisprudence.

²⁴ The authors acknowledge, however, that these commitments may raise some problems for competition and with respect to the confidentiality of licensing terms.

²⁵ CRA Report, p. 87.

3.4. Towards the 2017 IPR Package

In April 2016, in parallel to the publication of the ICT standardisation priorities for the Digital Single Market, in a Communication on Digitising European Industry, the Commission announced that, in collaboration with stakeholders including European Standard Organisations, European Patent Office, industry and research bodies, it would identify by 2017 a set of possible measures to ensure balanced IPR policies for the access to SEPs.²⁶ By May 2016, both the European Parliament and the Council had acknowledged the importance of SEPs and a balanced approach to SEPs licensing for an effective Single Market Strategy and the digitalisation of the European industry.²⁷

A few weeks later, in June 2016, the Commission published a package on the modernisation of EU standardisation policy, setting out its vision for an efficient European Standardisation System in the years to come, in light of technological developments, political priorities and global trends. The Commission argued that the European Standardisation System is on track with achieving the objectives set by Regulation (EU) no. 1025/2012, but it requires enhanced public-private cooperation. In this perspective, a Joint Initiative on Standardisation, bringing together European and national SDOs, stakeholders, Member States and the Commission, was launched with the aim of further modernising, prioritising and speeding up the delivery of standards.²⁸

In parallel, the Commission carried out a public consultation on the review of the IPR Enforcement Directive of 2004 ('IPRED')²⁹, including *inter alia* SEP-related issues.

Taking into account the results of the public consultation,³⁰ on 29 November 2017 the Commission published a comprehensive IPR enforcement package. It acknowledges that an efficient, well-designed and balanced IP system is a key lever to promote investment in innovation and growth. The main challenges for the EU IP system associated to the digital transformation include wider and faster proliferation of IP-infringing goods and content, as well as the need to ensure a balanced standardisation and SEP licensing framework, combining respect of IPRs with a smooth roll-out of new and innovative technologies.

²⁶ Communication from the Commission, *Digitising European Industry – Reaping the Full Benefits of a Digital Single Market*, COM(2016) 180 final.

²⁷ European Parliament resolution of 26 May 2016 on the Single Market Strategy; Council of the European Union, Conclusions on the Digital Industry Package, 17 May 2016.

²⁸ The package, adopted within the Single Market Strategy, COM(2015) 550 final, includes: a Communication from the Commission, *European Standards for the 21st century*, COM(2016) 358 final; a Commission Staff Working Document, *Tapping the potential of European service standards to help Europe's consumers and businesses*, SWD(2016) 186 final; a report from the Commission on the implementation of Regulation (EU) no. 1025/2012 from 2013 to 2015, COM(2016) 212 final; a Communication from the Commission, *The annual Union work programme for European standardization for 2017*, COM(2016) 357 final.

²⁹ Directive 2004/48/EC of the European Parliament and of the Council of 29 April 2004 on the enforcement of intellectual property rights.

³⁰ A summary of the contributions to the consultation is available at <http://ec.europa.eu/DocsRoom/documents/18661>.

The 2017 IPR package includes a general communication³¹, and two specific documents, one providing guidance on certain aspects of the IPRED³² and the other on the EU approach to SEPs³³. We will focus on the latter document (hereinafter, the ‘SEP Guidelines’), with the aim to discuss its impact on the EU framework for standardisation and SEP licensing.

4. *The SEP Guidelines*

The goal of the SEP Guidelines is twofold: on the one hand, incentivising the development and inclusion of top technologies in standards by preserving fair and adequate return for these contributions; on the other, ensuring smooth and wide dissemination of standardised technologies based on fair access conditions, so as to promote interconnectivity and the interoperability of systems, devices and applications. A balanced and successful policy for SEP licensing should “work to the benefit of start-ups in Europe and should serve all EU citizens by giving them access to products and services based on the best performing standardised technology”³⁴.

Looking at the areas of potential improvement in the SEP licensing environment revealed by studies and public consultations, the Commission, by means of a specific Communication on the EU approach to SEPs, intends to provide some guidance on the key principles that would foster a balanced and predictable framework.

Although the Communication does not represent a statement of the law, the idea is that the Guidelines should encourage all actors in the SEP licensing context, including SDOs, to contribute to make the approach work in practice. The Commission underlines that the SEP Guidelines do not bind the Commission in the application of competition rules. Indeed, differently from the Commission Communication on Horizontal Cooperation Agreements, the SEP Guidelines do not concern the application of competition rules and, thus, do not reflect the view of the Commission on how they should be applied.

The SEP Guidelines focus on three main issues:

- (1) how to improve the transparency on the existence, scope and relevance of SEPs;
- (2) what are the general principles for FRAND licensing; and
- (3) how to ensure a predictable enforcement environment and efficient dispute resolution.

A specific section is devoted to the relationship between open source and standardisation, but it merely highlights the importance of the issue and envisages further analysis.

³¹ Communication from the Commission, *A Balanced IP Enforcement System Responding to Today’s Societal Challenges*, COM(2017) 707 final.

³² Communication from the Commission, *Guidance on Certain Aspects of Directive 2004/48/EC on the Enforcement of Intellectual Property Rights*, COM(2017) 708 final.

³³ Communication from the Commission, *Setting out the EU Approach to Standard Essential Patents*, COM(2017) 712 final.

³⁴ SEP Guidelines, pp. 2-3.

4.1. Transparency: Enhancing the Quality of SEP Databases

The SEP Guidelines start with a discussion of the transparency of SEPs. Ideally, complete information both *ex ante* and *ex post* on the existence, validity, essentiality, ownership, scope, enforceability of the relevant patents would improve decision-making, prevent opportunistic behaviour and reduce transaction costs in the licensing process. The reason why the IP policies of SDOs are less demanding than the full information benchmark is that the provision of reliable information entails costs and requires time. In addition, for some aspects there may also be a degree of true uncertainty for the patent holder; for instance, in a dynamic market, the essentiality of a patent may be a temporary feature.

With respect to these issues, in the Guidelines, the Commission stresses that currently the only information on SEPs available to users is contained in the declaration databases of SDOs. This information is based on self-assessment, is not subject to any scrutiny and may not be accurate and updated.

Thus, the Commission encourages SDOs to improve the quality and accessibility of their SEP databases to provide better support to the licensing process. To this aim, for instance, SDOs should provide user-friendly interfaces, SEP information should be searchable based on the relevant standardisation project and obvious flaws should be eliminated. Links to patent office databases might be used to ensure updated information on the patent status, ownership and transfer. SDOs are also invited to ensure a stricter scrutiny on compliance by technology contributors with the declaration obligations contemplated by their IP policies.

As to the duties for technology contributors, the Commission suggests that declarations should be updated at the time of adoption of the final standard (and of any subsequent revision). Moreover, since declarations often concern patent applications, in order to ensure the quality of SEP databases they should be revised when the final decision on the patent is adopted. Technology contributors should also specify, in their SEP declarations, the section of the standard concerned and indicate a contact for the owner/licensor of the patent.

According to the Commission, the introduction of a small fee for periodic confirmation of SEP declarations would contribute to maintain only relevant declarations in the SDO databases. In case of litigation on issues such as the validity or essentiality of declared SEPs, the parties (patent holders and implementers) should be allowed to report in the database the outcome of the final judicial decisions.

The Commission also suggests that, at the request of either the right holder or the prospective user, the essentiality of a patent should be amenable to scrutiny by an independent third party with adequate technical know-how and reputation. In order to contain costs, such scrutiny might be calibrated and limited, for instance, to one patent within a family of patents or a sample of patents.

As to the identity of independent third parties which may carry out the essentiality check, the Commission argues that patent offices would be natural candidates, but in the long term, the task might be given to a specific independent European body. However, the Guidelines remind that stakeholders may have a private interest in obtaining certification of their SEP declarations; such certification would turn useful, at a later stage, when negotiating with potential licensees.

Thus, as to transparency, the Guidelines seek to promote the transformation of the declaration system into an information tool which would facilitate awareness by users of the standard of their SEP exposure and smooth out licensing negotiations.

Since the measures contemplated in the Guidelines would require significant organisational efforts and entail costs, the Commission suggests that implementation should be gradual and apply only to new crucial standards, such as 5G. In particular, for the essentiality check, a pilot project will be carried out for selected technologies. More generally, the Commission commits to cooperate with the SDOs and provide support to facilitate the process.

4.2. Principles for FRAND Licensing

With respect to the hotly debated issue of how FRAND licensing terms should be determined, the Commission endorses the view whereby only a balanced approach is capable of supporting the uptake of new technologies, standardisation processes and the roll out of IoT in Europe.

If, as stated by the Court of Justice in *Huawei*, FRAND commitments create the legitimate expectation by third parties that the SEP owner will grant licenses on such terms,³⁵ the Guidelines also acknowledge that the parties to a SEP licensing agreement, negotiating in good faith, are best placed to determine the FRAND terms most appropriate to their specific situation.

Importantly, the Commission stresses that ‘there is no one-size fits all solution to what FRAND is: what can be considered fair and reasonable differs from sector to sector and over time’.³⁶

Thus, the Guidelines set out some broad principles which should inspire sectoral discussions and the emergence of best practices. The underlying idea is that determining FRAND terms should take into account efficiency considerations, reasonable license fee expectations on both sides and the wide implementation of the standard.

In addition, the SEP Guidelines identify a set of valuation principles as relevant in determining a FRAND value.

First, FRAND licensing terms should be related to the economic value of the patented technology independently of its inclusion in the standard. However, when a technology is developed mainly for the standard and has little market value outside it, in order to maintain proper incentives for innovators, alternative criteria, such as the relative importance of the technology compared to other technologies included in the standard, should be considered. Since, on the one hand, the Commission seems to exclude the possibility for SEP holders to be remunerated with reference to the contribution of their patents to the standard but, on the other, admits alternatives when this approach would not ensure an appropriate remuneration of innovators; this first statement has been pointed out as the most ambiguous and controversial part of the Communication.³⁷

³⁵ C-170/13, *Huawei*, para. 53.

³⁶ SEP Guidelines, p. 6.

³⁷ Richard Vary, *Commission adopts light touch in SEP Guidelines*, <https://www.twobirds.com/en/news/articles/2017/global/commission-adopts-light-touch-in-sep-guidelines..>

Second, the Guidelines indicate that determining a FRAND value requires taking into account the ‘present value added of the patented technology’, but should not consider the market success of the product ‘which is unrelated to the value of the patented technology’. Indirectly, this principle suggests that, on the contrary, in FRAND determination it may be appropriate to take into account the market success of the product which is related to the contribution of the patented technology.

Third, FRAND valuation should preserve incentives for SEP holders to contribute their best available technologies to standards.

Finally, a FRAND value for an individual SEP cannot be determined in isolation: in order to avoid royalty stacking, the parties need to take into account a reasonable aggregate rate for the standard, assessing the overall added value of the technology.

As to the non-discrimination requirement in the FRAND commitment, the Commission indicates that SEP holders cannot treat implementers differently when they are ‘similarly situated’.³⁸ Indirectly, the Guidelines acknowledge that it may be legitimate to apply different conditions to implementers who are ‘differently situated’.

In addition to providing its views on valuation principles and non-discrimination criteria, in the Guidelines, the Commission points out that specific commercial practices, capable of enhancing efficiency and reducing transaction costs, should not be considered generally unfair. These practices include, for instance, cross-licensing practices and portfolio licensing. As to the geographical scope of licenses, the Commission endorses the position taken by Justice Birss in *Unwired Planet v. Huawei*, whereby for products with a global circulation, SEP licenses granted on a worldwide basis may contribute to a more efficient approach than country-by-country licenses and therefore be compatible with a FRAND commitment.³⁹

The Commission also stresses that patent pools (compliant with competition law) and licensing platforms may be useful to avoid royalty stacking and facilitate licensing to a large number of implementers in the IoT environment. Thus, while not mandating the use of these tools, it calls on SDOs and SEP holders to develop effective solutions to promote the use of pools and licensing platforms.

The Guidelines do not go beyond these general principles and statements on FRAND terms and licensing practices; however, the Commission announces that it will monitor licensing practices in the IoT sector. Moreover, in order to gather additional experience, expertise and know-how on FRAND determination in the different sectors, the Commission has set up a Group of Experts on SEPs, whose mandate also includes providing general advice on how to adequately value IP within the digital economy.

³⁸ *Unwired Planet v. Huawei* (2017), High Court of England and Wales 711.

³⁹ *Ibid.* However, the Commission clarifies that the way in which the remuneration is calculated should not penalise implementers wishing to develop a product for a geographically limited market.

4.3. *A Predictable and Balanced Enforcement Environment*

Moving from the Huawei judgment as a starting point and looking at the open issues, the Guidelines provide some indications for SEP dispute resolution taking inspiration from the post-Huawei national case law.

For instance, as to the first offer by the SEP holder, the Commission stresses that the prospective licensee should be given sufficiently detailed information to be able to assess the relevance of the SEP portfolio and whether the offer is FRAND and argues that such information should include explanations on the essentiality of the patent, the allegedly infringing products of the SEP user, the proposed royalty calculation and the non-discrimination element of FRAND. The counter-offer by the SEP user should be concrete and specific, not limited to contesting the offer or making a general reference to third-party determination of the royalty. Whether the counter-offer is timely should be assessed on a case-by-case basis, in light of the level of detail of the initial offer and the upstream transparency on SEP exposure.

The security, which according to Huawei can be required to a SEP user before the conclusion of the licence agreement, should be sufficient to deter patent hold-out strategies. Deterrence should also be taken into account when assessing the proper amount of damages in SEP cases.

More generally, with reference to the principles to be followed by national courts when assessing whether to grant an injunction in SEP litigation cases, the Commission recalls that, pursuant to Article 3 (2) of the IPRED, injunctive relief should be not only effective and dissuasive but also proportionate. In the latter respect, national courts within the EU should take into account both the relative relevance of the technology at issue and the potential spillover effects of an injunction on third parties.

One of the notions mentioned by the Court of Justice in Huawei which are relevant to assess fairness in negotiations are ‘recognised commercial practices in the field’.⁴⁰ In the Guidelines, the Commission recalls that national courts have considered portfolio licenses granted outside national borders to be compliant with FRAND provided that the portfolio is limited to all SEPs that the licensee needs to produce/market its product. The Commission argues that the portfolio may also include non-SEPs, but the patent holder cannot require the licensee to accept a licence also for non-essential patents. The unwillingness to offer or accept all SEPs which are necessary to a licensee to produce/market its product is an indication of bad faith.

As to future initiatives, the Commission points out as a matter for further discussion the issue of how to allow licensees to challenge the validity/essentiality of individual patents in the context of portfolio licensing. Moreover, it announces that it intends to foster the use of mediation and alternative dispute resolution tools, currently underexploited in this area.

Finally, looking at PAEs, the Commission argues that the features of the European litigation system, especially if accompanied by increased transparency of SEPs and enhanced predictability of SEP licensing criteria, in principle provide sufficient safeguards against abuses; therefore, PAEs should be subject to the same rules as any other SEP holder. However, the

⁴⁰ C-170/13, *Huawei*, para. 65.

impact of these players on the SEP licensing market will remain closely monitored by the Commission.

4.4. Open Source and Standards

In a distinct chapter of the SEP Guidelines, the Commission focuses on the potentially virtuous relationship between open-source software implementation and standardisation, which may speed up the standard-setting process and the take up of ICT standards.

The analysis does not go much beyond a declaration of interest; however, the Commission, which supports open-source solutions with specific initiatives under Horizon 2020, declares that it will promote further discussion on how to better integrate the two processes. A study on the interaction between open-source software and FRAND licensing standardisation by the JRC and DG Connect in collaboration with the Fraunhofer Institute and the Open Invention Network, will be finalised by 2019.

5. Looking at the Future: the Remaining Challenges

The SEP Guidelines were received with mixed sentiments. As one commentator put it, ‘Overall, this seems to be a positive step. There is little in the guidelines that either SEP licensors or implementers would strongly object to and the Commission has done a good job in drawing together various sources of guidance in this area into a single document and endorsing the good ones. Most commendably, it has avoided putting too heavy a hand on the scales in favour of either side in the debate’.⁴¹ At the same time, it is evident that there remain several open issues, both from a practical viewpoint and with reference to the conceptual framework for FRAND assessment.

5.1. Implementing the Guidelines

Looking at the organisational developments envisaged in the SEP Guidelines, since the Communication does not introduce any obligation on the parties, it remains to be seen whether there will be sufficient incentives for the different entities to follow the suggested path. Much depends on the practical support that the Commission will provide to the different players. This holds not only for the measures aimed at enhancing transparency that entail significant efforts and costs for SDOs and technology contributors but also for the envisaged wider use of patent pools, licensing platforms and alternative dispute resolution tools.

⁴¹ Richard Vary (2018), cit.

5.2. *The Approach to Controversial Issues*

As to the conceptual framework for FRAND determination, most commentators have noticed that in the SEP Guidelines the Commission does not address some of the most controversial issues, namely use-based licensing and where in the value chain to license.

As to the first issue, the Commission does not take an express position on whether the patent holder is allowed to charge different rates depending on the use of the technology. According to the typical example, the same technology may have a different value when applied to a fridge or, instead, to a connected car. In the IoT context, where technologies may have highly different uses, a general ban on use-based licensing would have a very serious impact on the returns of technology contributors.

The second issue is whether the SEP holder should be free to choose where in the value chain to license its SEPs. According to a view, the FRAND commitment entails an obligation to ‘license to all’ interested implementers, at any level of the value chain, and therefore also to manufacturers of components; thus, a strategy whereby SEP holders grant licenses only to producers of the final device (‘end user manufacturer’) would be incompatible with the FRAND commitment. The opposite view maintains that the FRAND commitment entails the obligation to give access to all, but the SEP holder may choose to license only at one level of the value chain, e.g., at the level of the end user manufacturer. The reason is that, if the patent holder was deprived of this choice, it would become extremely difficult to differentiate license fees depending on the use of its technology in the IoT. Similarly, also restrictions on the choice of the royalty base, such as the SSPPU approach, adopted for instance in the IP policy of the Institute of Electrical and Electronic Engineers (IEEE), may have a negative impact on the profitability of technology contributors.⁴²

All the above-mentioned issues have a direct impact on the level of royalties and, therefore, it comes as no surprise that they are hotly disputed. The Commission preferred not to make a clear-cut choice in favour of either one side or the other and decided to remain at the level of general principles. However, this does not mean that the Guidelines do not give any idea on how to proceed. The Guidelines stress that IP policies should ensure an adequate remuneration for innovators and, at the same time, there is no one-size-fits-all solution, since effective solutions may vary depending on the sector. Therefore, the Commission does not endorse a specific solution as the general best practice for all SDOs’ IP policies: it is up to the future Group of Experts to provide a deeper understanding of best practices at the sectoral level.

5.3. *Learning from National Courts and Supporting Them*

Looking at the role of courts in the SEP licensing context, in the aftermath of Huawei some of the matters left unresolved by the judgment have been addressed by the national case law. The SEP Guidelines point out some of the principles emerging from the case law as useful to provide additional guidance to stakeholders. In particular, with reference to the availability of

⁴² A. Gautier, N. Petit (2017), *Smallest Salable Patent Practicing Unit and Component Licensing - Why 1\$ is Not 1\$*. Available at SSRN: <https://ssrn.com/abstract=2954592>.

injunctive relief, the Guidelines refer to some judgments of German courts providing indications on how the parties should apply the Huawei choreography in practice. Moreover, on the issue of FRAND determination, they endorse the approach of the High Court of England and Wales in *Unwired Planet v. Huawei*⁴³ both with reference to the non discrimination principle, which should be interpreted as implying that the SEP holder should not discriminate between implementers who are similarly situated, and with respect to SEP portfolio licensing for products with global circulation, for which a country-by-country licensing approach may be inefficient and not in line with recognised commercial practices.

What is interesting is the selection which the Commission proposes among the several statements contained in national case law. Notably, for instance, the Guidelines do not recall the further statement of *Unwired Planet v. Huawei*, whereby there is only a FRAND rate in a given set of circumstances and not a FRAND range. In this judgment, Justice Birss focused on how a court facing two different offers should determine a FRAND rate, taking into account not only the starting point of the negotiation but also what would be the result of a good faith negotiation. However, if the issue of FRAND determination is addressed from a different perspective, for instance, with reference to the Huawei framework which contemplates the possibility that both the offer and the counter-offer are FRAND, then it remains important to look also at the starting points of the negotiations, i.e., to determine the boundaries of the FRAND range in order to be able to verify if the offer and the counter-offer meet the requirements set by the Court of Justice.

Since the Guidelines do not mention the issue, indirectly the Commission chooses not to dismiss as irrelevant the determination of the boundaries of the FRAND range. The criteria set forth by the JRC Study of 2017 may be helpful to national courts, in particular when they have to apply the Huawei framework.

More generally, high-quality economic studies may provide insights, on the pros and cons of the different methodologies for the determination of FRAND terms, which can be useful for national courts.

In the IPR package of November 2017,⁴⁴ the Commission acknowledges the crucial role of national case law and calls on the Member States to encourage the specialisation of judges in IP and IP enforcement-related matters. Moreover, it envisages a systematic publication of judgments rendered in IP enforcement cases, at least from appeal courts and higher, in easily accessible databases. Such databases would be crucial for knowledge exchanges across the single market, more predictability, cross-border debate among IP practitioners as well as for judicial training and development of best practices, also in view of the take-off of the Unified Patent Court.

5.4. The EU Approach in a Global Perspective

Discussions on the proper policy approach to licensing negotiations involving SEPs are taking place in several jurisdictions worldwide, ranging from the US to China, Japan, Korea and

⁴³ *Unwired Planet v. Huawei* (2017), EWHC 711.

⁴⁴ COM(2017)707 final.

India. In the US, for instance, Assistant Attorney General Delrahim, at the start of his mandate, announced a shift from a more implementer-friendly to a technology contributor-friendly approach in the application of competition law to SEP licensing. Korea has adopted an approach entailing a broad extraterritorial overreach of remedies imposed on SEP holders in the application of competition rules. The Japan Patent Office has adopted Guidance on licensing negotiations involving SEPs.

For governments, the huge economic interests at stake entail the temptation to take biased approaches in favour either of implementers or technology contributors, depending on the circumstances and, in particular, on the composition of the relevant industry base.⁴⁵

However, a biased approach, even if possibly attractive in the short term, at the end is likely to hamper innovation and prevent citizens from reaping all its potential benefits in terms of improved products and services, thus working contrary to the interests of the public.

Looking at the whole set of initiatives undertaken in recent years, the European Commission is endeavouring both to preserve the incentives to invest in technologies to be included in standards and to promote a widespread implementation of standards, as two complementary components of a proper public policy.

EU institutions will face a double challenge in the years to come. First, they must maintain the right track, i.e., a balanced approach which considers the points of view of all interested parties and provides proper guidance in the common interest. In addition, they should also actively promote this approach, in their relationships with key trading partners and within international organisations, as a benchmark for standardisation and SEP licensing policy at the global level.

⁴⁵ On these issues, see for instance Mathew Heim, *Antitrust enforcement in innovation industries: SEP cases across the two sides of the Atlantic*, available at <https://www.eui.eu/Projects/ENTRANCE/Documents/NewEntrance/Workshops/AnnualConference/Antitrust-Enforcement-in-Innovation-Industries.-SEP-Cases-Matthew-Heim.pdf>.