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**COMMUNICATION FROM THE COMMISSION TO THE EUROPEAN
PARLIAMENT, THE COUNCIL AND THE EUROPEAN ECONOMIC AND SOCIAL
COMMITTEE**

Setting out the EU approach to Standard Essential Patents

INTRODUCTION

The interplay between patents and standards is important for innovation and growth. Standards ensure that interoperable and safe technologies are widely disseminated among companies and consumers. Patents provide R&D with incentives and enable innovative companies to receive an adequate return on investments. Standards¹ frequently make reference to technologies that are protected by patents. A patent that protects technology essential to a standard is called a standard-essential patent (SEP). SEPs therefore protect technologies that are essential for complying with technical standards and for marketing products based on such standards.

Standards support innovation and growth in Europe, in particular providing for interoperability of digital technologies that are the foundation of the Digital Single Market (DSM). For example, computers, smartphones or tablets connect to the internet or other devices via standardised technologies such as long-term evolution (LTE), WiFi, or Bluetooth, all of which are protected by SEPs. Without the widespread use of such standardised technologies, such interconnectivity would not be possible².

In the hyper-connected era, interconnectivity becomes even more crucial. A wide range of new products need to be interconnected, as to provide consumers with additional products and services (e.g. smart house appliances) and to create new business opportunities for European companies.

The digitalisation of the economy creates great opportunities for EU industry. The estimated economic potential of IoT applications in devices for humans, homes, offices, factories, worksites, retail environments, cities, vehicles and the outdoors will be up to EUR 9 trillion per year by 2025 in developed countries³. The digitalisation of products and services can add more than EUR 110 billion in revenue to the European economy per year over the next five years⁴. The ability of connected devices and systems to work together is crucial for maximising this economic potential. Without interoperability, enabled by standards, 40 % of the potential benefits of IoT systems would not be reaped⁵. Without formal standardisation and SEPs, there would be, for example, no connected vehicles. Teliagnosis or remote operations with distant hospitals or to exchange patient information would not be possible either.

Patent holders contribute technology for developing standards within standard developing organisations (SDOs). Once a standard is established and the holders of the SEPs have given a commitment to license them on fair, reasonable and non-discriminatory (FRAND) terms, the technology included in the standard should be available to any potential user of the standard. Smooth licensing practices are therefore essential to guarantee fair, reasonable and non-

¹ Regulation (EU) 1025/2012 on European standardisation defines the meaning of the terms “standard” and “technical specification”. In this document the term “standard” is used with both meanings for the sake of brevity.

² For instance, company X marketing residential alarm systems connected to the internet both via WiFi and LTE to provide consumers with enhanced security in case of power cut, would need a licence for these standardised technologies.

³ McKinsey, 2015. See also the objective set by President Juncker for 5G and the IoT in the State of the Union speech, 14.9.2016.

⁴ PricewaterhouseCoopers, 2015 and Boston Consulting Group, 2015. See also: <https://ec.europa.eu/digital-single-market/en/digitising-european-industry#usefullinks>

⁵ See McKinsey (2015).

discriminatory access to the standardised technologies and to reward patent holders so they continue to invest in R&D and standardisation activities. This in turn plays a prominent role in developing a connected society, where new market players outside the traditional ICT sectors (producers of household appliances, connected cars, etc.) need access to the standardised technology.

The evidence however suggests that the licensing and enforcement of SEPs is not seamless and may lead to conflicts. Technology users accuse SEP holders of charging excessive licensing fees based on weak patent portfolios and of using litigation threats. SEP holders claim that technology users 'free ride' on their innovations and consciously infringe intellectual property rights (IPR) without engaging in good faith licensing negotiations⁶. Problems may be particularly acute when players coming from new industrial sectors who are unfamiliar with the traditional ICT business need access to standardised technologies. Disputes and delays in negotiations between technological users and holders may ultimately delay the widespread use of key standardised technologies. This can hamper the development of interconnected products in Europe, eventually affecting the competitiveness of the EU economy.

In its April 2016 Communication on Standardisation Priorities for the Digital Single Market⁷, the Commission identified three main areas where the SEP licensing environment could be improved: opaque information on SEP exposure; unclear valuation of patented technologies reading on standards and the definition of FRAND; and the risk of uncertainty in enforcement of SEPs. In addition, the role of open source communities in the development of standards also should be assessed.

There is therefore a need for a clear, balanced and reasonable policy for Standard Essential Patents in the EU with the aim of contributing to the development of the Internet of Things and harnessing Europe's lead role in in this context.

Conflicting interests of stakeholders in certain SDOs may make it difficult for these organisations to provide effective guidance on such complex legal and intellectual property (IP) policy issues. Licensing platform initiatives in this area are still at an early stage and have not yet been adopted by implementers, who may well be hesitant given the uncertainty in the current SEP regulatory environment and who have little incentive to enter into a deal in this context.

In addition, the standardisation of 5G and IoT is a global issue. Europe's industry retains a leading position in many sectors in global markets. The Commission notes the important role European standardisation plays in the global context⁸.

The Commission therefore considers that there is an urgent need to set out key principles that foster a balanced, smooth and predictable framework for SEPs. These key principles reflect two main objectives: incentivising the development and inclusion of top technologies in standards, by preserving fair and adequate return for these contributions, and ensuring smooth and wide dissemination of standardised technologies based on fair access conditions. A balanced and successful policy on SEPs licensing should work to the benefit of start-ups in

⁶ The economic stakes are very high: for example, the royalty income for 2G, 3G and 4G standards is approximately EUR 18 billion per year (CRA 2016).

⁷ The public consultation organised by the Commission in 2014 clearly shows divergent opinions on the challenges and solutions concerning the SEP environment. See http://ec.europa.eu/growth/tools-databases/newsroom/cf/itemdetail.cfm?item_id=7833.

⁸ Patents declared to the ETSI represent 70% of worldwide SEPs (IPlytics, 2017).

Europe and should serve all EU citizens by giving them access to products and services based on the best performing standardised technology.

This Communication draws on the responsibility of all actors in the SEP licensing context, and all stakeholders are encouraged to contribute to making this framework work in practice. It is not intended to represent a statement of the law and is without prejudice to the interpretation of EU law by the Court of Justice of the European Union (CJEU). It does not bind the Commission as regards the application of EU rules on competition, and in particular Articles 101 and 102 of the Treaty on the Functioning of the European Union (TFEU).

1. INCREASING TRANSPARENCY ON SEPs EXPOSURE

Information on the existence, scope and relevance of SEPs is vital for fair licensing negotiations and for allowing potential users of a standard to identify the scale of their exposure to SEPs and necessary licensing partners. However, currently the only information on SEPs accessible to users can be found in declaration databases maintained by SDOs which may lack transparency. This situation makes licensing negotiations and the anticipation of risks related to SEPs particularly difficult to navigate for start-ups and SMEs. The primary purpose of declarations is to reassure an SDO and all third parties that the technology will be accessible to users, typically under a commitment to license under FRAND conditions.

SDO databases may record tens of thousands of SEPs for a single standard, and this trend is growing⁹. The declarations are based on a self-assessment by the patent holder, and are not subject to scrutiny regarding the essentiality of the declared patent, which can evolve in the course of the standard adoption procedure. In addition, stakeholders report that even in concrete licensing negotiations licensors fail to substantiate their claims with more precise information. This is particularly unsatisfactory in the context of IoT where new players with little experience of SEPs licensing are continually entering the market for connectivity. The Commission therefore believes that measures, as outlined below, are needed to improve the information on SEPs.

1.1. IMPROVING QUALITY AND ACCESSIBILITY OF INFORMATION RECORDED IN SDO DATABASES

The Commission believes that SDOs should provide detailed information in their databases to support the SEP licensing framework. While SDO databases collect large amounts of declaration data¹⁰, they often do not provide user-friendly accessibility to interested parties, and lack essential quality features. The Commission therefore takes the view that the quality and accessibility of the databases should be improved¹¹. First, data should be easily accessible through user friendly interfaces, both for patent holders, implementers and third parties. All declared information should be searchable based on the relevant standardisation projects, which may also require the transformation of historic data into current formats. Quality processes should eliminate also duplications and other obvious flaws. Finally, there should be links to patent office databases, including updates of patent status, ownership and its transfer.

⁹ For instance, more than 23 500 patents have been declared essential to the Global System for Mobile Communication standard and the 3G or Universal Mobile Telecommunication System standards developed at the European Telecommunications Standards Institute (ETSI). Such standard apply to all smartphones and devices having a mobile connection. For more figures, see 'Landscaping study on SEPs' IPlytics (2017) and 'Patents and Standards - A modern framework for IPR-based standardization' ECSIP (2014).

¹⁰ Some SDOs require specific patent disclosures as they recognise their benefits, while others permit blanket declarations. This section of the Communication refers to SDOs with specific patent disclosure.

¹¹ See for example the long running 'DARE' project to improve the ETSI's database.

Work on improving databases needs to be combined with a stricter scrutiny on compliance with declaration obligations as defined in current SDO policies to avoid incomplete declarations¹².

1.2. DEVELOPING AN INFORMATION TOOL TO ASSIST LICENSING NEGOTIATIONS

The Commission notes that the current declaration system in SDOs supports the technical standard setting process and is not geared towards future SEP licensing. However, it is clear that there are net benefits in extending the current practice and purpose of declarations and databases to the creation of new transparency tools which, without losing their main purpose, can greatly facilitate licensing negotiation. Proportionality considerations are essential in this context. Whilst excessive burdens for stakeholders should be avoided, it should be born in mind that in concrete licensing negotiations, patent holders necessarily have to invest in substantiating to SEP users why patents from the patent holders' portfolio are essential to the standard or how these patents are being infringed¹³. The Commission therefore believes that proposed incremental improvements with controlled costs can substantially reduce overall transaction costs during licensing negotiations as well as infringement risks, to benefit both parties in negotiations¹⁴.

1.2.1. More up-to-date and precise declarations

Declarations occur early on in the standardisation process, with normally no review later on. However, technical solutions proposed in standards negotiations evolve up until the final standard¹⁵ is agreed. While the majority of declarations concern patent applications, the patent claims under the final patent granted after adoption of the standard can differ considerably¹⁶, as their content may change during the granting process. Therefore, rightholders should review the relevance of their declarations at the time of adoption of the final standard (and subsequent significant revisions) and when a final granting decision on the patent is taken.

Declarations should also include enough information to assess patent exposure. Patent holders should at least make reference to the section of the standard that is relevant to the SEP and to the link with the patent family. Declarations should also clearly identify a contact for the owner/licensor of the declared SEP.

Finally, it should be noted that SEPs on key technologies are more frequently litigated¹⁷. Associated information is relevant for all interested licensees and can play a role in limiting the possibility of future litigation. SDOs should therefore provide the possibility and incentives for patent holders and technology users to report the case reference and main outcome of final decisions, positive or negative, on declared SEPs (including on essentiality and patent validity). As companies usually only litigate a few valuable patents within a portfolio, and both patent holders and users should have an interest in reporting decisions in their respective favour, the associated burden of this measure would be limited.

¹² For further details, please see the summary report of the public consultation organised by DG GROW in 2015. <http://ec.europa.eu/DocsRoom/documents/14482/attachments/1/translations/en/renditions/native>.

¹³ See CRA (2016).

¹⁴ See section 3 below in relation to effective enforcement.

¹⁵ For instance, a potential patent or patent application initially declared for a candidate technology may not be retained in the released standard, or the declared patent application may be revised during the granting process.

¹⁶ For instance, 71% of SEPs declared at major SDOs (73% at the ETSI) are only granted after the standard has been released (IPlytics, 2017).

¹⁷ See ECSIP (2014).

1.2.2. Essentiality checks

Evidence points to the risk of broad over-declarations and makes a strong case for more reliability with respect to SEP essentiality¹⁸. Stakeholders report that recorded declarations create a *de facto* presumption of essentiality in negotiations with licensees¹⁹. This scenario places a high burden on any willing licensee, especially SMEs and start-ups, to check the essentiality of a large number of SEPs in licensing negotiations.

There is therefore a need for a higher degree of scrutiny on essentiality claims. This would require scrutiny being performed by an independent party with technical capabilities and market recognition, at the right point in time. Having said this, introducing such a scrutiny requirement to SEPs must be balanced against the cost²⁰. However, an incremental approach, whereby scrutiny takes place at the request of either rightholders or prospective users, calibrating the depth of scrutiny and limiting checks to one patent within a family and to samples, could ensure the right cost-benefit balance of this measure²¹.

1.2.3. Means of implementation

While there are clear benefits to such increased transparency, the related burden needs to remain proportionate. Measures could therefore be extended gradually, and apply to new and key standards only, e.g. 5G.

As a first step, stakeholders could be incentivised to value increased transparency, e.g. by way of certification that their declared SEP portfolios comply with transparency criteria. This certification could later be used in licensing negotiations and litigation. In addition, a recent study undertaken for the Commission suggests that SDOs may consider introducing (modest) fees for confirming SEP declarations after standard release and patent grants, to incentive SEP holders to revise and maintain only relevant declarations²².

When considering essentiality checks, patent offices may well be natural candidates for exploiting synergies and reducing costs²³. The Commission will support further analysis of their feasibility to ensure effective and proportionate solutions. Depending on the outcome of this project, an independent European body could be tasked to proceed with SEP essentiality assessment.

The Commission:

- *calls on SDOs to urgently ensure that their databases comply with the main quality features described above and will co-operate with SDOs to facilitate this process;*
- *calls on SDOs to transform the current declaration system into a tool providing more up-to-date and precise information on SEPs and will co-operate with SDOs in order to facilitate that process;*
- *considers that declared SEPs should be subject to reliable scrutiny of their essentiality for a standard, and will launch a pilot project for SEPs in selected technologies with a view to facilitating the introduction of an appropriate scrutiny mechanism.*

¹⁸ See IPlytics (2017) and CRA (2016) and the summary of DG GROW public consultation on SEPs (2015).

¹⁹ A number of studies on various key technologies suggests that when rigorously tested, only between 10% and 50% of declared patents are essential (CRA, 2016 and IPlytics, 2017).

²⁰ The cost of essentiality checks may be negligible compared to licensing revenues for key technologies (see CRA, 2016).

²¹ For an analysis of cost and benefits, please see IPlytics (2017).

²² See CRA (2016).

²³ See IPlytics (2017).

2. GENERAL PRINCIPLES FOR FRAND LICENSING TERMS FOR SEPS

The Commission considers that the parties are best placed to arrive at a common understanding of what are fair licensing conditions and fair rates, through good faith negotiations. Currently, licensing is hampered by unclear and diverging interpretations of the meaning of FRAND. The debate is particularly heated when it comes to valuation principles. Divergent views and litigation over FRAND licensing risk delaying the uptake of new technologies, standardisation processes and the roll-out of IoT in Europe. The Commission considers therefore that it is both necessary and beneficial to establish a first set of key signposts on the FRAND concept, so as to provide for a more stable licensing environment, guide parties in their negotiations and reduce litigation.

The guiding elements set out below are based on the results of a public consultation²⁴, analysis of best practices²⁵, studies²⁶, as well as national case law²⁷. The Commission encourages stakeholders to engage in dialogue with each other and with the Commission, with the view to achieving further clarification and developing best practices. The Commission will monitor progress achieved and take complementary action on FRAND licensing, as needed.

2.1. LICENSING PRINCIPLES

As the CJEU has confirmed, an 'undertaking to grant licences on FRAND terms creates legitimate expectations on the part of third parties that the proprietor of the SEP will in fact grant licences on such terms'²⁸.

Both parties must be willing to engage in good faith negotiations, with the view to establishing licensing conditions that are fair, reasonable and non-discriminatory. Parties to a SEP licensing agreement, negotiating in good faith, are in the best position to determine the FRAND terms most appropriate to their specific situation.

Efficiency considerations, reasonable licence fee expectations on both sides, the facilitation of the uptake by implementers to promote wide diffusion of the standard should be taken into account. It should be stressed in this respect that there is no one-size-fit-all solution to what FRAND is: what can be considered fair and reasonable differs from sector to sector and over time. For this reason, the Commission encourages stakeholders to pursue sectoral discussions with a view to establishing common licensing practices, based on the principles reflected in this Communication.

The Commission considers that the following IP valuation principles should be taken into account:

- Licensing terms have to bear a clear relationship to the economic value of the patented technology. That value primarily needs to focus on the technology itself and in principle should not include any element resulting from the decision to include the technology in the standard. In cases where the technology is developed mainly for the standard and has little market value outside the standard, alternative evaluation

²⁴ Public consultation on patents and standards: A modern framework for standardisation involving intellectual property rights.

²⁵ Licensing Terms of Standard Essential Patents: A Comprehensive Analysis of Cases, JRC 2017

²⁶ Study on Transparency, Predictability and Efficiency of SDO-based Standardization and SEP Licensing, Published on: 12/12/2016, (CRA study).

²⁷ See, in particular, *Unwired Planet v. Huawei* [2017] EWHC 711 (Pat).

²⁸ Case C-170/13 *Huawei Technologies*, EU:C:2015:477, paragraph 53

methods, such as the relative importance of the technology in the standard compared to other contributions in the standard, should be considered.

- Determining a FRAND value should require taking into account the present value added²⁹ of the patented technology. That value should be irrespective of the market success of the product which is unrelated to the patented technology.
- FRAND valuation should ensure continued incentives for SEP holders to contribute their best available technology to standards.
- Finally, to avoid royalty stacking, in defining a FRAND value, an individual SEP cannot be considered in isolation. Parties need to take into account a reasonable aggregate rate for the standard, assessing the overall added value of the technology³⁰. The implementation of measures on SEP transparency can already support this objective. It can be addressed further, within the scope of EU competition law, by the creation of industry licensing platforms and patent pools, or based on indications by standardisation participants on the maximum cumulative rate that could be reasonably envisaged or expected.

2.2. EFFICIENCY AND NON-DISCRIMINATION

The non-discrimination element of FRAND indicates that rightholders cannot discriminate between implementers that are 'similarly situated'³¹.

Given that FRAND is not one-size-fits-all, solutions can differ from sector to sector and depending on the business models in question.

As mentioned above, FRAND negotiations imply good faith negotiations from both parties. Efficiency considerations can come into play as well. Transaction costs relating to the negotiation of a licence should be kept to the minimum necessary. Furthermore, in sectors where cross-licencing practices are widespread, efficiency gains related to such practices should be taken into account. These points need to be taken into account when assessing on a case by case basis whether a licensing offer is compatible with FRAND.

In line with the approach presented above, the Commission considers that the same principles of efficiency support the practice of SEP portfolio licensing for products with global circulation³². As noted in a recent ruling³³, a country-by-country licensing approach may not be efficient and may not be in line with a recognised commercial practice in the sector.

2.3. PATENT POOLS AND LICENSING PLATFORMS TO FACILITATE SEP LICENSING

The creation of patent pools or other licensing platforms, within the scope of EU competition law, should be encouraged. They can address many of the SEP licensing challenges by offering better scrutiny on essentiality, more clarity on aggregate licensing fees and one-stop-shop solutions. For IoT industries, and particularly SMEs, newly exposed to SEP licensing disputes, this will bring more clarity to licensing conditions of SEP holders in a specific sector.

²⁹ The *present value* is the value discounted to the time of the conclusion of the licence agreement. Allowing for the discounting over time is important against the backdrop of licence agreement running over several years in sometimes technologically fast moving business environments.

³⁰ On royalty stacking see CRA study.

³¹ *Unwired Planet v. Huawei* [2017] EWHC 711 (Pat).

³² However, FRAND licensing requires remuneration to be calculated in a manner that implementers wishing to develop a product for a specific, geographically limited area are not placed at a disadvantage.

³³ *Unwired Planet v. Huawei* [2017] EWHC 711 (Pat).

Measures to encourage the setting up of pools for key standardised technologies should be encouraged, e.g. facilitating access to pool management offers and technical assistance by SDO³⁴. The Commission will consider further measures if these efforts are ineffective in IoT sectors.

2.4. EXPLOITING AND DEEPENING FRAND EXPERTISE

There is a need to increase accessibility of experience, expertise and know-how around FRAND determination. Valuable insight has been gained and approaches developed from licensing agreements, mediations, arbitrations and court decisions over many years. Significant resources and efforts have been devoted to clarifying, analysing and valuing patents and technology. As there is no common repository for such expertise, work and research may be unnecessarily duplicated at serious cost to the parties involved. More accessible FRAND-related information could increase predictability for businesses such as IoT players, facilitate the licensing process in general and provide support and benchmarks in dispute settlement.

The Commission will therefore set up an expert group with the view to gathering industry practice and additional expertise on FRAND licencing. In addition, the Commission will use all appropriate tools available to obtain further information to support its policy making with sufficient evidence.

In view of current developments, the Commission considers that SEP licencing should be based on the basis of the following principles:

- There is no one-size-fit-all solution on what FRAND is: what can be considered fair and reasonable can differ from sector to sector and over time. Efficiency considerations, reasonable licence fee expectations on both sides, the facilitation of the uptake by implementers to promote wide diffusion of the standard should be taken into account.

- Determining a FRAND value should require taking into account the present value added of the patented technology. That value should be irrespective of the market success of the product which is unrelated to the value of the patented technology.

- In defining a FRAND value, parties need to take account of a reasonable aggregate rate for the standard.

- The non-discrimination element of FRAND indicates that rightholders cannot discriminate between implementers that are 'similarly situated'.

- For products with a global circulation, SEP licences granted on a worldwide basis may contribute to a more efficient approach and therefore can be compatible with FRAND.

The Commission calls on SDOs and SEP holders to develop effective solutions to facilitate the licensing of a large number of implementers in the IoT environment (especially SMEs), via patent pools or other licensing platforms, while offering sufficient transparency and predictability.

The Commission will monitor licencing practices, in particular in the IoT sector. It will also set up an expert group with the view to deepening expertise on industry licensing practices, sound IP valuation and FRAND determination.

³⁴ 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 (ECSIP, 2015).

3. A PREDICTABLE ENFORCEMENT ENVIRONMENT FOR SEPS

Disputes on SEPs are an important factor in the licensing system when negotiations fail. A balanced and predictable enforcement environment has particularly positive effects on parties' behaviour during negotiations, which in turn can speed up the spread of standardised technologies. IoT stakeholders report however that uncertainties and imbalances in the enforcement system have serious implications for market entry. SEPs show a higher degree of litigation than other patents³⁵, which reinforces the need for a clear dispute framework in this area. While this Communication focuses on specific guidance on Standard Essential Patents, the *Guidance on certain aspects of Directive 2004/48/EC of the European Parliament and of the Council on the enforcement of intellectual property rights*³⁶ clarifies the IPRED regime more generally. The possibility to enforce is one of the key aspects of intellectual property rights³⁷. The debate in the SEPs area has mainly focused on the availability of injunctive relief. Such relief aims to protect SEP holders against infringers unwilling to conclude a licence on FRAND terms. At the same time, safeguards are needed against the risk that good-faith technology users threatened with an injunction accept licensing terms that are not FRAND, or in the worst case, are unable to market their products (hold-ups).

3.1. AVAILABILITY OF INJUNCTIVE RELIEF UNDER THE HUAWEI VS ZTE JURISPRUDENCE

In its Huawei judgment³⁸, the CJEU established obligations applying to both sides of a SEP-licensing agreement, when assessing whether the holder of a SEP can seek an injunction against a potential licensee without being in breach of Article 102 TFEU. SEP holders may not seek injunctions against users willing to enter into a licence on FRAND terms, and the CJEU established behavioural criteria to assess when a potential licensee can be considered willing to enter into such a licence.

The Commission considers that the elements below – which arise from national case-law in applying the *Huawei* judgment³⁹, provide useful additional guidance for stakeholders.

A number of courts have stressed that a prospective SEP licensee has to receive sufficiently detailed and relevant information to determine the relevance of the SEP portfolio and

³⁵ ECSIP (2014).

³⁶ COM(2017)708

³⁷ Directive 2004/48/EC of 29.4.2004 on the enforcement of intellectual property rights, pub. OJ L 195 of 2.6.2004, recital 3

³⁸ Case C-170/13 *Huawei Technologies*, EU:C:2015:477.

³⁹ The CJEU held that Article 102 TFEU must be interpreted as meaning that the proprietor of a patent essential to a standard established by a standardisation body, which has given an irrevocable undertaking to that body to grant a licence to third parties on fair, reasonable and non-discriminatory ('FRAND') terms, does not abuse its dominant position, within the meaning of that article, by bringing an action for infringement seeking an injunction prohibiting the infringement of its patent or seeking the recall of products for the manufacture of which that patent has been used, as long as:

(1) prior to bringing that action, the proprietor has, first, alerted the alleged infringer of the infringement complained about by designating that patent and specifying the way in which it has been infringed, and, secondly, after the alleged infringer has expressed its willingness to conclude a licensing agreement on FRAND terms, presented to that infringer a specific, written offer for a licence on such terms, specifying, in particular, the royalty and the way in which it is to be calculated, and

(2) where the alleged infringer continues to use the patent in question, the alleged infringer has not diligently responded to that offer, in accordance with recognised commercial practices in the field and in good faith, this being a matter which must be established on the basis of objective factors and which implies, in particular, that there are no delaying tactics.

compliance with FRAND⁴⁰. The concrete requirements may vary according to the individual case, but the Commission believes that to assess a FRAND offer and make an appropriate counter-offer, clear explanations are necessary on: the essentiality for a standard, the allegedly infringing products of the SEP user, the proposed royalty calculation and the non-discrimination element of FRAND.

Concerning the counter-offer, it follows from *Huawei* that it should be concrete and specific, i.e. it cannot be limited to contesting the SEP holder's offer and a general reference to third-party determination of the royalty. It should also contain information on the exact use of the standard in the specific product. The willingness of the parties to submit to binding third-party FRAND determination - should the (counter-)offer be found not to be FRAND - is however an indication of a FRAND behaviour.

In terms of timeliness of the counter-offer of the potential licensee, no general benchmark can be established, as case-specific elements play a role. These include the number of asserted SEPs and the details contained in the infringement claim. However, there is a probable trade-off between the time considered as reasonable for responding to the offer and the detail and quality of the information provided in the SEP holder's initial offer. In this respect, measures that improve the upstream transparency on SEP exposure⁴¹ will have a very positive impact on the enforcement system.

If more reliable information on SEPs is available upfront via the declaration system, as highlighted in section 1 above, the number of declared SEPs would be considerably reduced. This should be taken into account when assessing acceptable response times for SEP users to react to a FRAND offer.

With respect to the security to be provided by the SEP user as protection against an injunction, the amount should be fixed at a level that discourages patent hold-out strategies. Similar considerations could apply when assessing the magnitude of damages. The Commission will support an exchange of best practice by experts and stakeholders on the calculation method of damages in SEP cases.

3.2. PROPORTIONALITY CONSIDERATIONS

When assessing the availability of injunctive relief, courts are bound by Article 3(2) of the IPR Enforcement Directive⁴², and notably the requirement to ensure that injunctive relief is effective, proportionate and dissuasive. Given the broad impact an injunction may have on businesses, consumers and on the public interest, particularly in the context of the digitalised economy, the proportionality assessment needs to be done carefully on a case-by-case basis. The Commission feels that considerations need to be given to the relative relevance of the disputed technology for the application in question and the potential spill-over effects of an injunction on third parties.

3.3. LITIGATION ON THE BASIS OF PATENT PORTFOLIOS

In line with the *Huawei* judgment, which refers to *recognised commercial practices in the field*⁴³, national courts have also considered portfolio licences granted outside national

⁴⁰ OLG Düsseldorf, Case I-15 U 66/15, Order of 17 November 2016 and OLG Karlsruhe, Case 6 U 58/16, Order of 8 September 2016.

⁴¹ See section 1 above.

⁴² Directive 2004/48/EC of 29.4.2004 on the enforcement of intellectual property rights, OJ L 195 of 2.6.2004, p. 16.

⁴³ Case C-170/13 *Huawei Technologies*, EU:C:2015:477 (para 65)

territories to be compliant with FRAND, provided that the portfolio is limited to all the SEPs that a licensee needs to produce/market its product (see section 2.2 above). In this context, SEP holders may offer more patents, including non-SEPs, but cannot require a licensee to accept a licence for these other patents as well. The general non-willingness or non-acceptance to offer or accept all SEPs that a licensee needs may be an indication of bad faith. In order to be FRAND, the counteroffer needs to be related to all SEPs that a licensee needs and cannot be based on individual patent(s) only. Portfolios should however not include competing technologies, but only complementary technologies if necessary⁴⁴. While putative licensees may always question the validity/essentiality of individual patents, the licensing of all SEPs that a licensee needs can be particularly efficient. The Commission will therefore work with stakeholders (including where appropriate courts, arbitrators and mediators) to develop and use consistent methodologies, such as sampling, which allow for efficient and effective SEP dispute resolution, in compliance with the industry practice of portfolio licensing.

3.4. ALTERNATIVE DISPUTE RESOLUTION

The Commission takes the view that alternative dispute resolution (ADR) mechanisms such as mediation and arbitration can offer swifter and less costly dispute resolution⁴⁵. While there can be no obligation for parties to use ADR, the Commission believes that the potential benefits of this tool are currently underexploited.

Recourse to ADR is often hampered by unpredictability and criticised for lack of transparency of previous decisions. The success of such mechanisms depends not only on appropriate procedures, but also on the quality of experts. When it enters into operation, the Unified Patent Court should provide a dedicated arbitration and mediation centre benefitting from a pool of specialised judges, thus ensuring high quality and efficient proceedings, coherent practice and limited scope for forum shopping. As announced in its November 2016 strategy on IP for SMEs, the Commission is, together with the EUIPO, mapping IP mediation and arbitration tools with the view to facilitating the further roll-out of IP mediation and arbitration services, for SMEs in particular⁴⁶.

The Commission considers that the outcomes of disputes should also be included in SDOs' databases as mentioned in the chapter on transparency⁴⁷.

3.5. PATENT ASSERTION ENTITIES AND SEPs

Patent Assertion Entities⁴⁸ (PAEs) are becoming increasingly involved in the SEP licensing market. Studies⁴⁹ suggest that the European litigation system - including the one that is due to be established under the Unified Patent Court - has sufficient safeguards to protect against the potentially harmful effects of certain PAEs in the EU⁵⁰. PAEs should be subject to the same rules as any other SEP holder, including after the transfer of SEPs from patent holders to

⁴⁴ See *mutatis mutandis* Guidelines on the application of Article 101 of the Treaty on the Functioning of the European Union to technology transfer agreements, OJ C 89, 28.3.2014, p. 3, paragraph 250-55.

⁴⁵ Different ADR mechanisms already exist, such as the WIPO's Arbitration and Mediation Centre.

⁴⁶ Commission Staff Working Document, 'Putting intellectual property at the service of SMEs to foster innovation and growth', SWD(2016)373 of 22.11.2016.

⁴⁷ See section 1.2.1 above.

⁴⁸ For the attempt of a definition see the JRC study 'Patent Assertion Entities in Europe', chapter 3. <http://publications.jrc.ec.europa.eu/repository/bitstream/JRC103321/lfna28145enn.pdf>

⁴⁹ <http://publications.jrc.ec.europa.eu/repository/bitstream/JRC103321/lfna28145enn.pdf>

⁵⁰ JRC study above.

PAEs. Increased transparency and predictability should further reduce the margin for abuse. The application of the proportionality principle by courts provides yet another safeguard. The Commission will closely monitor the ongoing impact of these market players on the SEP licensing market in Europe, in particular once the EU unitary patent is operational.

3.6. AWARENESS RAISING

There is a need for relevant stakeholders, in particular SDOs and SEP holders, to proactively raise awareness of the FRAND licensing process and its implications, particularly for SMEs (both patent holders and implementers of the standards). The Commission will support awareness actions on this issue.

The Commission considers that the FRAND process requires both parties to negotiate in good faith, including responding in a timely manner. Injunctive relief can, however, be sought against parties acting in bad faith (i.e. parties unwilling to take up a licence on FRAND terms), but it must be used proportionally.

The Commission will:

- work with stakeholders to develop and use methodologies, such as sampling, which allow for efficient and effective SEP litigation, in compliance with the industry practice of portfolio licensing;*
- further facilitate the roll-out of mediation and alternative dispute resolution tools; and*
- monitor the impact of PAEs in Europe.*

4. OPEN SOURCE AND STANDARDS

In the context of current advances in technology, open source software (OSS) implementation is, in addition to standards, also driving innovation, and is becoming increasingly widespread, including in the area of ICT standards. Integration between open source projects and standards development processes is a win-win situation: on one side the alignment of open source and standardisation can speed-up the standards development process and the take-up of ICT standards (especially for SMEs) and on the other side standards can provide for interoperability of open source software implementations⁵¹. Activities in this direction are taking place within different SDOs⁵².

Open source and standardisation processes both have similarities in common (e.g. collaborative open processes, contribution to innovation) and differences (IPR policies, agility, maintenance, transparency, balance of the processes etc.). There is therefore a need to pay attention to the interaction between open source community projects and SDOs processes.

The Commission supports open source solutions, i.e. through R&I projects funded under Horizon 2020. Flexible and effective interactions between standardisation and open source communities will promote and accelerate the uptake of advanced technology developments.

The Commission will continue to collaborate with stakeholders, open source communities and SDOs to promote an effective relationship between standardisation and open source. It will also fund studies to analyse complementarities, ways of interacting and differences between the two processes, and recommend solutions for smooth collaboration between the two communities.

⁵¹ In relation to Cloud computing, see the report on standards and open source: bridging the gap.

⁵² OASIS, ECMA, ITU-T, ETSI, etc.

The Commission will work with stakeholders, open source communities and SDOs for successful interaction between open source and standardisation, by means of studies and analyses.

5. CONCLUSION

For Europe to reap the full benefit of the Single Market and the Digital Single Market, a balanced IPR framework is needed that supports a sustainable and efficient standardisation ecosystem and SEP licensing environment.

This Communication proposes a holistic approach and sets out key principles for SEP licensing taking into account how industrial sectors are organised as well as efficiency considerations. Working together with all stakeholders will be necessary for a successful implementation of the principles and to ensure concrete results of the actions announced, notably by fostering the participation of start-ups in the roll-out of the Internet of Things. The Commission therefore invites all stakeholders to actively engage in their implementation.

The Commission will closely monitor the SEP licensing markets with a particular focus on IoT technologies, by making use of the expert group that will be created and launching further studies if necessary. It will take stock of progress achieved and assess the need for further measures to ensure a balanced framework for smooth, efficient and effective licensing of SEPs on that basis.