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# **Standard-Essential Patents**

## **- Balancing the Interests of Intellectual Property and Competition under EU law**

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Thesis in *European Law*, 30 HE credits



## Abstract

In recent years, there has been an increase in the standardisation of products and processes in the high tech sector. For the most part, these standards relate to the aim of achieving interoperability and compatibility between products manufactured by the various competitors in a given sector. Standardisation agreements are generally considered to be pro-competitive, but there has been a growing antitrust concern regarding the conduct of the proprietors of Standard-Essential Patents. In the recent enforcement of Article 102 TFEU, it has been held that an SEP owner's seeking of an injunction prohibiting the infringement of its patent may constitute an abuse of a dominant position, under certain circumstances. The patentee's right to exclude others from exploiting its patent forms part of the patentee's exclusive rights, which is a cornerstone of patent law. Therefore, this thesis aims to assess whether or not a fair balance has been struck between the interests of intellectual property and competition under EU law. To answer this question, standardisation in the ICT sector will be investigated to illustrate the IP and antitrust issues pertinent to the sector. Moreover, the purpose and rationale of patent law will be contrasted with the enforcement of Article 102 by the Commission and the ECJ. On the basis of this analysis, it is argued that the ECJ has achieved somewhat of a balance between these interests in its judgement in *Huawei*. In many ways the court has managed to balance the interests of SEP owners and potential licensees. However, the court fails to take into account important factors in the relevant industry, such as innovation, and instead adopts a rather traditional approach in its application of Article 102.

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## List of Abbreviations

FRAND	Fair, Reasonable and Non-Discriminatory
EC	European Commission
ECJ	European Court of Justice
ETSI	European Telecommunications Standards Institute
ICT	Information and Communications Technology Sector
IPR	Intellectual Property Right
NPE	Non-Practising Entities
R&D	Research and Development
SEP	Standard-Essential Patent
SSO	Standard-Setting Organisation
TEU	Treaty on European Union
TFEU	Treaty of the Functioning of the European Union
TRIPS	Agreement on Trade-Related Aspects of Intellectual Property Rights

# 1. Introduction

## 1.1 Topic

In the high tech sector there is an ever growing need for standardised technology. In order to ensure interoperability between products manufactured by different undertakings, standardization is required. Such standards comprise a technology or a set of technologies that relates to a certain function or use, for instance the agreed use of the 3G and 4G standards for mobile phones. The standards are adopted by a Standard Setting Organization (SSO), which is specific to a particular industry.<sup>1</sup> Patented technology that is essential to a given standard is known as a Standard-Essential Patent (SEP). There are a great number of these SEPs in any given product. For instance, smartphones are complex products which contain diverse technology, such as software, processors and electrical components. This bundle of technology means that a single phone may contain hundreds or even thousands of patents from many different patentees.<sup>2</sup>

Increased compatibility between products is generally considered to be pro-competitive and to give rise to substantial consumer benefits. But in certain cases the legal actions of SEP owners have been ruled to constitute an abuse under EU competition law.<sup>3</sup> The enforcement of a patent through legal action is part of the patent owner's 'exclusive rights'. Consequently, a conflict arises between the interests of intellectual property rights (IPRs) and the interests of competition law. Therefore, it is of great importance to evaluate if a sufficient balance has been achieved between these two interests, in regards to SEPs.

In *Huawei*<sup>4</sup> the ECJ held that an SEP owner may abuse its dominant market position when it brings an action for a prohibitory injunction against the alleged infringer of its patent, under certain circumstances. The question at issue in this thesis is whether this arrangement is necessary to ensure effective competition in the relevant market, or if it constitutes an undue restriction of the patent owner's rights?

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<sup>1</sup> Abboud, Sam. Are Remedies for Breaching Standard Essential Patents Prohibited by Article 102 TFEU. *European Law Blog*. 2015-08-19. <http://europeanlawblog.eu/?p=2814> (retrieved 2016-11-08).

<sup>2</sup> Fröhlich, Michael. The smartphone patent wars saga: availability of injunctive relief for standard essential patents. *Journal of Intellectual Property Law & Practice*, 2014, Vol. 9, No. 2, pp. 156-159.

<sup>3</sup> European Commission. Standard-essential patents. *Competition Policy Brief – Issue 8* (2014). [http://ec.europa.eu/competition/publications/cpb/2014/008\\_en.pdf](http://ec.europa.eu/competition/publications/cpb/2014/008_en.pdf) (retrieved 2016-10-14).

<sup>4</sup> Case C-170/13, *Huawei v. ZTE*.

## 1.2 Purpose

The focus of the thesis is to evaluate the aforementioned balance between competition law and IP law in the case of SEP litigation. Legal questions regarding technology standards have been brought to the fore due to the high degree of litigation resulting from the so called ‘smartphone patent wars’. To date, there are 50 lawsuits between Apple and Samsung, spanning ten countries, and 20 cases between Apple and Google, before their settlement agreement.<sup>5</sup> This conflict also concerns technology that is in widespread use in the internal market of the EU, i.e. smartphones and tablets. Subsequently, it can be stated that this issue is of substantial public interest and that it affects the high-tech sector to a great extent.

Competition law and IP law have the common goals of furthering innovation and competition. The exclusivity of an IPR may however restrict competition by preventing new innovations from being developed and entering the market.<sup>6</sup> Achieving a balance between these two legal areas is therefore in general a high priority to ensure an effective single market. I believe that the relationship between standard-essential patents and competition law provides for an interesting case study, from which both specific and general conclusions may be drawn.

## 1.3 Delimitation

The thesis will concentrate on EU law. Therefore, no national legislation will be used to assess the issues at hand. The study of the balance between competition law and IP law may encompass vastly different situations and cases. Consequently, this thesis intends to focus on the specific case, within patent law, of SEPs, and how it relates to competition law. Patents are the only IPRs that will be investigated at any depth. In order to create a coherent analysis, the abuse of a dominant position, according to Article 102 TFEU, will be the main abusive conduct to be analysed. This is in large part due to the fact that Article 102 is the provision that has been implemented in existing EU case law. However, Article 101 will also be investigated in the analysis, as this regulation is relevant to standardisation agreements and FRAND licensing.

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<sup>5</sup> Lerner, Josh & Tirole, Jean. Standard-Essential Patents. *Journal of Political Economy* (June 2015) Volume 123, Issue 3, pp. 547–586.

<sup>6</sup> Kur, Anette & Dreier, Thomas. *European Intellectual Property Law*. Edward Elgar Publishing Limited, Cheltenham 2013 p. 378.

#### 1.4 Method

In order to assess and examine SEPs in relation to competition law, a legal dogmatic method will be used. This method has often been described as having the aim of solving a legal issue by applying a rule of law to said issue. To achieve this result, the lawyer needs to seek answers to a point of law in legal sources. These consist of, *inter alia*, legislation, case law and legal literature.<sup>7</sup> Consequently, legal sources will be investigated to form a basis for the analysis in this thesis and to answer the question at issue. A distinction has to be drawn between the question of how a rule of law should be applied in a certain situation, and the question of how a rule of law should be designed or framed in the future application of the law. In other words, it is a question of *de lege lata* and *de lege ferenda*. In the first case the legal dogmatic method is more rigid, while it is permissible in the second case to use a more independent set of arguments.<sup>8</sup> The question at issue in this thesis will mainly be answered in regards to *de lege lata*, by assessing if a balance has been achieved between intellectual property and competition law in the present case. In the analysis, however, arguments regarding how the legal system may be improved will be expressed, and therefore the concept of *de lege ferenda* will also be taken into account.

Since the legal basis is EU law, an EU legal method will also be used.

Competition law in the union is governed by primary law, through Articles 101 and 102 TFEU. The legislation is, however, phrased in a rather general way. Thus case law from the ECJ as well as the European Commission will be used to clarify how cases concerning the legal action of SEP owners should be interpreted under competition law. Where there are gaps, legal literature will be used to support the analysis. However, the fact that such literature is in no way legally binding as a legal source will be taken into account. Furthermore, EU soft law in the form of Commission Notices will also be used to investigate the interpretation and application of competition law in the union, see section 2.3.

In contrast to competition law, patent law is not fully harmonized in the internal market, even though it is the objective of the EU to establish uniform protection for IP rights.<sup>9</sup> This of course presents a problem when trying to strike a balance between these two legal fields within the confines of EU law. Cases are bound to be interpreted differently as long as the level of patent protection varies between Member States. In order to analyse patents from

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<sup>7</sup> Kleineman, Jan. Rättsdogmatisk metod (Legal Dogmatic Method); In *Juridisk metodlära (Legal Methodology)*, Korling, Fredric & Zamboni, Mauro (ed.), 109-140. 1. uppl. Lund: Studentlitteratur AB 2013 p. 21.

<sup>8</sup> Kleineman 2013 p. 30.

<sup>9</sup> See Article 118 TFEU.

a European perspective, the Agreement on Trade-Related aspects of Intellectual Property Rights (TRIPS) will be used to examine patents in this thesis. As it is an international agreement to which the EU is a signatory party, it is binding upon the institutions of the Union and on its Member States.<sup>10</sup> It is worth noting that the proposed Unified Patent Court, with the aim of settling disputes relating to European patents,<sup>11</sup> will increase the level of harmonisation of patent law within the union. One of the court's main sources of law is the European Patent Convention,<sup>12</sup> which has been ratified by all Member States of the EU.<sup>13</sup> However, the EPC will not be applied in the analysis of patents for the purposes of this thesis.

When analysing EU case law, it is important to consider the interpretation methods used by the ECJ. One of the most crucial methods, and the one most often associated with the ECJ, is the teleological method, i.e. the interpretation of legislation in light of its purpose. The use of this method can be explained by the EU's status as a sui generis and, partly, supranational legal system. Under article 5 TEU, the EU may only act within the competences explicitly conferred upon it by the Member States in the Treaties. When developing the law through precedent, the ECJ therefore has to adhere to the stated objectives of the union. In the court's case law, the overall goal of creating the single market has been of the outmost importance when interpreting EU law.<sup>14</sup> The method may also be used to avoid a much too literal interpretation of the EU sources of law. Especially in the Treaties, the wording of the articles is often phrased in a rather general way. As a consequence, the underlying purpose of the rules has to be considered, in order to ensure an accurate reading of the law. Thus when analysing EU competition law, it is essential to scrutinise its purpose and goals, in order to determine whether a certain action can constitute an abuse according to Article 101 or 102. The enforcement of competition law can be viewed as a central objective of the union, since the creation of a highly competitive social market economy is an explicitly stated objective in regards to the establishment of the internal market, under Article 3(3) TEU.

In the analysis of competition law one will inevitably be required to take economic theories into consideration. As a consequence, an *Economic Analysis of the Law* will act as an underlying methodology in this thesis. The aim of *Law & Economics*, as it is also known, is to analyse the law from an external point of view, or, more specifically, from

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<sup>10</sup> See Article 216 (2) TFEU.

<sup>11</sup> Agreement on a Unified Patent Court (2013/C 175/01), Article 1.

<sup>12</sup> Ibid, Article 24.

<sup>13</sup> <https://www.epo.org/about-us/organisation/member-states.html> (retrieved 2017-02-10)

<sup>14</sup> Reichel, Jane. EU-rättslig metod (EU legal method); In *Juridisk metodlära (Legal Methodology)*, Korling, Fredric & Zamboni, Mauro (ed.), 109-140. 1. uppl. Lund: Studentlitteratur AB 2013 p. 122.

an economic perspective. Scholars in this field of research tend to view the law as an instrument, which should be shaped in such a way that it maximises *economic efficiency* and *welfare*.<sup>15</sup> In the study of EU law it can often be valuable to keep in mind the economic perspective. From a teleological point of view, one of the main objectives of the union is the creation of an internal market and a highly competitive social market economy.<sup>16</sup> Consequently, when investigating how best to achieve these goals, within the purview of competition law, it is crucial to take economic theories into account. Furthermore, an economic analysis is often required to discern whether or not the conduct of an undertaking is pro- or anticompetitive. The rationale behind the existence of intellectual property is also based in economic theory. For instance, a premise in the scholarly debate of *Law & Economics* is that intellectual property protection is essential to incentivise creation and/or investment by eliminating certain market failures, such as the problem of free-riding, see section 4.2. However, in recent years there has been a great deal of debate regarding the value of strong IP protection, and whether or not the benefits to innovation outweigh the shortcomings of the system.<sup>17</sup> Therefore, economic theory has to be taken into consideration in order to evaluate this point of contention.

## 2. Regulations

### 2.1 Article 101 TFEU and the Horizontal Guidelines

As standardization is formed by means of horizontal agreements between independent market operators, any antitrust issues relating to the agreements themselves would be interpreted under Article 101. Agreements and concerted practices which have as their object or effect the prevention, restriction or distortion of competition within the common market are prohibited. Such agreements may, however, be permissible if they contribute to improving the production or distribution of goods or to promoting technical or economic progress, under Article 101(3). Therefore, the pro-competitive benefits of the relevant agreement have to be determined, and subsequently it has to be assessed whether those pro-competitive benefits outweigh the restrictive effects on competition.<sup>18</sup> The Commission has created an ample source for the

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<sup>15</sup> Bastidas Venegas, Vladimir. Rättsekonomi (Law & Economics); In *Juridisk metodlära (Legal Methodology)*, Korling, Fredric & Zamboni, Mauro (ed.), 109-140. 1. uppl. Lund: Studentlitteratur AB 2013 p. 175 et seq.

<sup>16</sup> Article 3(3) TEU.

<sup>17</sup> Bastidas Venegas 2013 p. 201.

<sup>18</sup> Horizontal Guidelines para. 20.

assessment of standardisation agreements in the Horizontal Guidelines.<sup>19</sup> The apparent objective of the Guidelines seems to have been to create a safe harbour for standard-setting activities.<sup>20</sup> As a Commission guideline, they are not rules of law which the Commission is invariably bound to observe, rather they form rules of practice from which the Commission may not depart without giving justifiable reasons.<sup>21</sup> However, the EU courts may still use the Guidelines as a basis for interpretation when assessing cases under Article 101.

## 2.2 Article 102 TFEU

### 2.1.1 Objectives

In Article 3 TEU it is proclaimed that the Union shall establish an internal market. To this end, “[it] shall work for the sustainable development of Europe based on balanced economic growth and price stability [and] a highly competitive social market economy”. Ensuring an effective competition within the internal market is therefore one of the main objectives of the EU. In regards to Article 102 TFEU, the Guidance Paper<sup>22</sup> states that the aim of the provision is to ensure that undertakings which hold a dominant position do not exclude their competitors. The provision is not designed to simply protect competitors, but rather aims to protect an effective competitive process.<sup>23</sup> The Guidance Paper is a Commission document and are rules of practice rather than rules of law. It sets out the *enforcement priorities* that guide the Commission’s application of Article 102. However, it *could* still influence the way in which the EU Courts approach the interpretation of that provision.<sup>24</sup>

### 2.1.2 Abuse of a Dominant Position

Article 102 prohibits the abuse of a dominant position. The provision does not prohibit an undertaking’s holding of a dominant position per se, but only the abuse of such a position.<sup>25</sup> Subsequently, first it must be ascertained that one or more undertakings hold a dominant position, and then the abuse of that dominant position has to be determined. Article 102 provides

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<sup>19</sup> Guidelines on the application of Article 81 [now Article 101] to horizontal cooperation agreements [2011] OJ C11/01.

<sup>20</sup> Lundqvist, Björn. *Standardization under EU Competition Rules and US Antitrust Laws: The Rise and Limits of Self-Regulation*. Edward Elgar Publishing Limited, Cheltenham 2014 p. 197.

<sup>21</sup> Jones, Alison & Sufrin, Brenda. *EU Competition Law*. 5<sup>th</sup> edition. Oxford University Press, Oxford 2014 p. 188.

<sup>22</sup> Guidance on the Commission's enforcement priorities in applying Article 82 [now Article 102] of the EC Treaty to abusive exclusionary conduct by dominant undertakings [2009] OJ C45/2.

<sup>23</sup> Guidance Paper para. 6.

<sup>24</sup> Jones & Sufrin 2014 pp. 290 et seq.

<sup>25</sup> Reiterated by the ECJ in Case C-209/10, *Post Danmark A/S v. Konkurrencerådet* [2012], paras. 21-22.

a non-exhaustive list of abuses, and the practices acknowledged there are merely examples of abuse.<sup>26</sup> Furthermore, the dominant position must be held within the internal market or a substantial part of it, and there must be an effect on inter-State trade. The ECJ concluded in *United Brands* that an undertaking would hold a dominant position where it could prevent effective competition being maintained by having the power to behave independently of its competitors, customers and ultimately of its consumers.<sup>27</sup> The question of dominance therefore concerns the undertaking's 'economic strength' and its ability to act independently on the market. Abuses are usually classed as either *exploitative* or *exclusionary*. When a dominant undertaking exploits its customers by taking advantage of its market power it is an *exploitative* abuse. Conduct which impedes effective competition by excluding (foreclosing) competitors is an *exclusionary* abuse.<sup>28</sup>

### 2.3 EU Soft Law

In recent years, there has been a growth of a more or less uniform administrative organisation in the EU. Due to the lack of uniformity coupled with the union's insufficient competence to make decisions regarding the internal organisation of the Member States, the use of soft law has increased, i.e. non-binding documents such as guidelines and handbooks. Although the EU and its institutions are not bound by these documents, from a practical standpoint they may have a normative significance, at least in the absence of other sources. The ECJ have, in recent years, been known to refer to some of these documents in their interpretation of a source of law.<sup>29</sup> An instance of this brand of soft law of importance to competition law are the Commission Notices. Documents such as the Horizontal Guidelines and the Guidance Paper constitute very detailed sources of interpretation regarding Articles 101 and 102. Despite of their potential normative effect, it has to be taken into account that they are rules of practice rather than binding rules of law, as was mentioned above. Nevertheless, they still guide the Commission's application of Articles 101 and 102. Therefore, these documents provide a great deal of clarification on the interpretation of competition law, in regards to e.g. standardisation.

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<sup>26</sup> Case C-52/09, *TeliaSonera* [2011], para. 26.

<sup>27</sup> Case 27/76, *United Brands v. Commission* [1978].

<sup>28</sup> Jones & Sufrin 2014 p. 283.

<sup>29</sup> Reichel 2013 p. 127.

## 2.4 TRIPS

In order to ensure effective international IP protection, TRIPS was made an essential part of the WTO agreement at its conclusion in 1994.<sup>30</sup> The EU is a member of the WTO and a signatory of TRIPS.<sup>31</sup> The agreement set out a minimum level of IP protection, which Member States are obliged to enforce. In regards to the method of implementation of the agreement's provisions, the Member States have a great deal of leeway, and they may implement more extensive IP protection than is required by the agreement.<sup>32</sup> The acceptance of the agreement is in congruence with Article 207 TFEU, which states that the Union's common commercial policy shall be based on uniform principles regarding, *inter alia*, the commercial aspects of IPRs. This is connected to the objective of creating a common market within the union, and due to the importance of IPRs in the modern economy the harmonization of its protection is of great importance. Furthermore, as an international agreement concluded by the EU, TRIPS is binding upon the institutions of the Union and on its Member States.<sup>33</sup> Therefore, when handling cases which relates to the protection of IPRs, the Commission and the courts are bound to follow the regulations enacted in TRIPS, for instance the exclusive rights conferred on a patentee. Even though patent law is not yet fully harmonized in EU law, TRIPS may consequently be used as a yardstick for IP protection within the Union.

## 3. Standardisation Agreements

### 3.1 Standards in the ICT Industry

The standardisation agreements that are relevant to this thesis relate to the information and communications technology (ICT) sector, and more specifically the telecommunications industry. Standards are generally conceived by voluntary organisations, known as Standard-Setting Organisations (SSOs), which consist of participants from the relevant industry e.g. the European Telecommunications Standards Institute (ETSI). These SSOs negotiate and adopt mutually acceptable standards, in order to ensure compatibility and interoperability between

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<sup>30</sup> Kur & Dreier 2013 pp. 24-25.

<sup>31</sup> [http://www.wipo.int/wipolex/en/other\\_treaties/parties.jsp?treaty\\_id=231&group\\_id=22](http://www.wipo.int/wipolex/en/other_treaties/parties.jsp?treaty_id=231&group_id=22) (retrieved 2016-12-06).

<sup>32</sup> See Article 1(1) TRIPS.

<sup>33</sup> See Article 216(2) TFEU.

competing and complementary products and components.<sup>34</sup> In the Horizontal Guidelines, the Commission has established that the objective of standardisation agreements is to define “technical or quality requirements with which current or future products, production processes, services or methods may comply”. Furthermore, such agreements may cover “technical specifications in product or services markets where compatibility and interoperability with other products or systems is essential”.<sup>35</sup> Standardisation agreements are generally considered to have positive economic effects, for instance by encouraging the development of new and improved products or markets,<sup>36</sup> thus promoting innovation. Moreover, standardisation is dependent on information sharing, which leads to a boost in innovation and in keeping markets open and competitive.<sup>37</sup> These agreements may, however, be anticompetitive, for instance when they “give rise to restrictive effects on competition by potentially restricting price competition and limiting or controlling production, markets, innovation or technical development”.<sup>38</sup>

In the case of the mobile telecommunications sector a great deal of technology interoperability standards have been created, the most recent of which is the 4G technology. In the last few years literally thousands of patents have been declared essential under the technology standards of the ETSI.<sup>39</sup> This of course creates a plethora of patented technology in the sector, which becomes difficult to survey for manufacturing companies. The great increase in the number of patents, coupled with a surge in litigation, has been referred to as a patent thicket, the existence of which some believe risks blocking innovation and reducing economic efficiency.<sup>40</sup> The essential nature of the patents, ensured by the relevant standardisation agreement, means that a manufacturer of e.g. smartphones must access the patented technology to be able to manufacture their products. There have been problems in the sector regarding hold-up of the development of technology, due to certain undertakings allegedly excluding competition by refusing to grant access to their essential patents.<sup>41</sup> It is

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<sup>34</sup> Geradin, Damien. The European Commission Policy Towards the Licensing of Standard-Essential Patents: Where Do We Stand? *Journal of Competition Law & Economics* (December 2013) Volume 9, Issue 4, pp. 1125–1145.

<sup>35</sup> Horizontal Guidelines, para 257.

<sup>36</sup> Horizontal Guidelines, para 263.

<sup>37</sup> Pierce, Justin. *The Antitrust Dilemma: Balancing Market Power, Innovation and Standardisation*. Media-Tryck, Lund University, Lund 2016 p. 134.

<sup>38</sup> Horizontal Guidelines, para 264.

<sup>39</sup> Lundqvist 2014 p. 56-58.

<sup>40</sup> Heiden, Bowman. The viability of FRAND: How the seminal landmark Microsoft ruling could impact the value of standard essential patents and the future of telecom standards. *Telecommunications Policy* 40 (2016), pp. 870–887 (871).

<sup>41</sup> *Ibid* p. 57.

these Standard-Essential Patents that have been the subject of the so-called *smartphone patent wars*.

### *3.2 Standardisation Agreements under Article 101(1)*

In order for a standardisation agreement to not restrict competition, within the meaning of Article 101 (1) TFEU, a number of conditions have to be fulfilled. The Horizontal Guidelines require that: (i) participation in the standard-setting is **unrestricted**; (ii) the procedure for adopting the relevant standard is **transparent**; (iii) the agreement contains **no obligation to comply**; and (iv) access is provided to the standard on **fair, reasonable and non-discriminatory terms**.<sup>42</sup> High market shares held by the parties in the market affected by the standard will not necessarily result in the standard being considered a restriction of competition by effect.<sup>43</sup> The standardisation agreement can therefore be legitimate even when its participants hold dominant positions on the relevant product markets, as long as competitors are free to adopt and influence the standard.<sup>44</sup> It can be concluded that the primary focus, when analysing a standardisation agreement, is therefore its level of openness. If undertakings in the relevant market cannot sufficiently access the standard, through e.g. licensing, competition is restricted. Additionally, the parties to the agreement would give themselves an unjustifiably privileged position in the market for the relevant standard-compliant product, if licences are not granted to non-members.<sup>45</sup> When the standard affects the relevant industry at large, the guarantee that the standard can be properly accessed is crucial for new and improved products and markets to be developed. Especially the FRAND terms seem to be designed to ensure fair and open access to the standard, as well as ensuring a restriction on the potential hold-up power of the proprietors of SEPs, which will be investigated in section 3.4.

### *3.3 Standard-Essential Patents*

The IPR policy is of great importance in a standardisation agreement. Standards in the ICT sector generally concern technology, which is invariably patented. The Commission has held that there is a possibility that the holder of an IPR can acquire control of a standard if that IPR

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<sup>42</sup> Horizontal Guidelines, para. 280.

<sup>43</sup> Horizontal Guidelines, para. 296.

<sup>44</sup> Lundqvist 2014 p. 184.

<sup>45</sup> Temple Lang, John. Standard essential patents and court injunctions in the high tech sector under EU law after Huawei. *ERA Forum* (2015). DOI: 10.1007/s12027-015-0406-z p. 587.

is essential for the implementation of the standard.<sup>46</sup> Such a situation could lead to hold-up problems. Although standard-setting may bring about public benefit by ensuring interoperability, barriers to entry may be created if companies holding SEPs achieve control over the standard and gain market power, thereby excluding competing technologies.<sup>47</sup> SEPs are therefore at the very centre of the potential anticompetitive effects of standardisation agreements. These are patents that, as the name implies, are essential to a specific technology standard, such as the aforementioned 4G standard.

A patent is in its very nature exclusionary, since the patent owner is granted exclusive rights to its use.<sup>48</sup> Normally this is not considered to be in conflict with competition law, as the aim of this legal exclusivity is to further innovation and competition.<sup>49</sup> The granting of a patent may always result in the patentee acquiring a substantial degree of market power, and this is, to some degree, the point of the patent system. However, in the case of SEPs the patentees may acquire considerably more market power than the proprietors of non-essential patents, as well as hold-up power. The product manufacturers are, in fact, locked in to the standard. This is due to the fact that in many cases it is not possible to work or design around a patent when the technology has been incorporated into a standard.<sup>50</sup> Because of the implementers' high level of investment and sunk costs into the standardised technology, it would also be economically unsound to replace the technology in question. The holders of SEPs are thus able to exploit their market power by, for instance, refusing to license the technology or only agreeing to license on conditions that are unreasonable, e.g. demanding excess licence fees.<sup>51</sup> This potential restriction of competition may be worsened by the recent surge in so called non-practicing entities (NPEs), that do not manufacture or use their patents, instead focusing on licensing.<sup>52</sup> There is a risk that such companies will claim much higher royalty rates than product manufacturers, due to the fact that NPEs have no need to cross-license SEPs. This of course puts NPEs in a completely different bargaining position during licensing negotiations, as there is no need for a quid pro quo in regards to cross-licensing, coupled with the essential nature of their patents. To alleviate these concerns SSOs present a

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<sup>46</sup> Horizontal Guidelines, para. 269.

<sup>47</sup> Jones, Alison. Standard-Essential Patents: Frand Commitments, Injunctions and the Smartphone Wars. *European Competition Journal* (April 2014), 10:1, pp. 1-36 (p. 3).

<sup>48</sup> See section 4.1.

<sup>49</sup> Kur & Dreier 2013 p. 378.

<sup>50</sup> Jones 2014 p. 4.

<sup>51</sup> *Ibid* p. 4.

<sup>52</sup> Kang, Byeongwoo & Bekkers, Rudi. Just-in-time inventions and the development of standards: How firms use opportunistic strategies to obtain standard-essential patents (SEPs). *Research Policy* 44 (2015), pp. 1948–1961. DOI: 10.1109/SIIT.2013.6774575 p. 1948.

possibility of self-regulation, by making the acceptance of a standard conditional on the patent holders commitment to license on fair, reasonable and non-discriminatory (FRAND) terms.

### *3.4 FRAND Terms*

#### *3.4.1 Commitment to License on FRAND Terms*

According to the Horizontal Guidelines, a standard-setting organisation is required to stipulate in its patent policy that all rights holders, with patents included in the standard, commit themselves to license said patents on FRAND terms.<sup>53</sup> In situations where the owner of an SEP fails to agree to such a commitment, it is often required by the SSO's patent policy that a different non-infringing technology is chosen for the standard. Herein lies the contractual basis for utilising standardisation as a pro-competitive instrument that rewards inventive efforts.<sup>54</sup> The patent owner's commitment to license on FRAND terms can be seen as the payment it offers for having its patent (or patents) included in the standard, i.e. as a kind of quid pro quo.<sup>55</sup> When a standard is agreed upon, this commitment by the owners of the patents included in the standard results in a contractual obligation, because the standardisation agreement is in fact a contract. Nevertheless, it may be necessary to invoke competition law to ensure that patentees comply with this commitment. Essentially, competitors are allowed, under competition law, to restrict competition by agreeing on a standard, as long as patents are disclosed before the standard is adopted and FRAND commitments are made. However, the mere existence of a rule that requires the granting of licences on FRAND terms is not enough. As competition law is permanent and generally applicable, licences must actually be given on FRAND terms, for EU law to not be infringed.<sup>56</sup>

#### *3.4.2 How to define FRAND*

The idea to compel patent owners to license on FRAND terms may be seen as a useful way of ensuring broad access to standardised technology in the market, but a subsequent contentious issue that inevitably arises is how FRAND terms should be defined. In most cases SSOs have avoided giving a specific answer to this question, and the market actors have consequently been left to negotiate the specific licensing terms for themselves. It is important to note that SSOs have been wary of sanctioning any agreement that would decide on the magnitude of

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<sup>53</sup> Horizontal Guidelines para. 285.

<sup>54</sup> Heiden 2016 p. 871.

<sup>55</sup> Temple Lang 2015 p. 586.

<sup>56</sup> Ibid p. 587.

licensing terms, due to concerns that such an agreement would be construed as price fixing by competition authorities.<sup>57</sup> However, lately there has been a growing concern that this lack of market consensus on the meaning of FRAND could promote opportunism on the side of SEP owners.<sup>58</sup> An argument can be made for some leeway in the definition of FRAND in licensing negotiations on the basis of the free market, and due to the fact that it is reasonable that SEP owners are remunerated for their patented technology. However, a subsequent overvaluation of SEPs may distort competition. Which course of action would best promote innovation is a point of contention, and would require an economic analysis.

An issue that has arisen in recent SEP litigation is the question whether a patent owner's injunction against an alleged infringer can be seen as an abuse of a dominant position, for the purposes of Article 102 TFEU. The ECJ concluded in *Huawei* that such litigation can be considered an abuse of a dominant position, under certain circumstances.<sup>59</sup> This judgement would support the view that there is a distorted balance of power in licensing negotiations between SEP owners and the implementers of the ICT sector. The court held that, due to the irrevocable undertaking given by the proprietor of the SEP to the SSO to grant licences on FRAND terms, a refusal to license on those terms may, in principle, constitute an abuse within the meaning of Article 102, especially because the patent's SEP status implies that the proprietor can prevent competing products from being manufactured.<sup>60</sup> However, the court does not delve into the specific meaning of FRAND. It is problematic that the court simply uses those terms as a basis for how a licensing agreement should be framed, without actually specifying how FRAND royalties should be calculated. Thus the definition of the terms still remains somewhat unclear.

## 4. Patents

### 4.1 *The Patent Owner's Exclusive Rights*

In the EU Charter of Fundamental Rights, the protection of intellectual property is guaranteed by Article 17(2), regarding the 'Right to Property'. Therefore, there is an obligation under EU primary law to protect intellectual property. In order to outline the specifics of the rights of the proprietor of a patent, the TRIPS agreement will be investigated.

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<sup>57</sup> Shapiro, Carl. Navigating the Patent Thicket: Cross Licenses, Patent Pools and Standard Setting. In Jaffe, Adam et al. (eds), *Innovation Policy and the Economy* (MIT Press 2001) p. 128.

<sup>58</sup> Heiden 2016 p. 871.

<sup>59</sup> Case C-170/13, *Huawei v. ZTE* [2015].

<sup>60</sup> *Huawei* para. 51-53.

The granting of a patent confers certain exclusive rights on its owner. These rights enable the patent owner to prevent third parties from making, using, offering for sale, selling, or importing for these purposes the patented product, or, in the case of a process patent, the product obtained directly by that process.<sup>61</sup> Furthermore, patent owners are entitled to transfer the patent by succession and to conclude licensing agreements. The patent owner's right to prevent others from using its patent can be seen as the most fundamental protection granted by patent law. In contrast, it cannot always be guaranteed that a patentee will be entitled to use his own patent, as it may contain components that infringe other patents. The patent owner is not given a statutory right to practice his invention, but rather a statutory right to prevent others from commercially exploiting his invention.<sup>62</sup> The patent is, therefore, first and foremost a negative right, by giving the proprietor the legal right to exclude others.

The other main application of the patent owner's exclusive right is the possibility of assigning or licensing the patent.<sup>63</sup> The development and creation of an invention usually requires a great deal of economic investment on the part of the applicant and future owner of the patent. These costs may concern both R&D as well as the invention's development for industrial application. To recover the expense of this investment, the patent owner consequently wishes to exploit the patent.<sup>64</sup> Therefore, the exclusive rights ensure that the proprietor of the patent is remunerated for his investment into the invention.

However, the exclusive rights of the patent owner are not *absolute rights*, just like other property rights. According to Article 30 TRIPS, limited exceptions to the exclusive rights conferred by a patent may be instituted by the Member States. For instance, in most patent systems the proprietor of a patent is required to work his invention or license it to third parties, in order to retain his monopoly. If it is proven that the invention is not worked to a sufficient extent in the territory in question, a non-voluntary licence may be granted to third parties.<sup>65</sup> In situations where the patent is not used, it only serves as an exclusionary instrument, without the benefits of technological innovation in the industry. It can be argued that patent holders are only given a legal monopoly as an incentive for the creation of new technology, and if such new technology remains unused it defeats the purpose of the patent system. This can be related to the idea of creating a 'dissemination of technology', which will

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<sup>61</sup> Article 28 (a) and (b) TRIPS.

<sup>62</sup> WIPO Intellectual Property Handbook: *Policy, law and use*. 2<sup>nd</sup> edition Geneva 2004, p. 17. <http://www.wipo.int/about-ip/en/iprm/> (retrieved 2016-12-08).

<sup>63</sup> Ibid p. 28.

<sup>64</sup> Ibid.

<sup>65</sup> Ibid.

be discussed further in section 4.2. In such an instance where a licence is granted without the authorization of the patentee, he shall be paid an adequate remuneration in accordance with the circumstances of each case,<sup>66</sup> thus ensuring that he recovers the cost of his invention.

This effective exclusion of competition can, of course, create a conflict with the interests and purposes of competition law. In the case of standardization and SEPs such conflicts have been identified. The alleged anticompetitive conduct of patent owners calls into question the efficiency of patents in general, and SEPs in particular, in promoting innovation and ensuring an effective competition within the Union. In industries with such extensive patent thickets as in the ICT sector it has been questioned whether or not patent law is, in fact, obstructing innovation.<sup>67</sup> Therefore, a vital point of inquiry is: what are the market benefits of the patent system?

#### *4.2 The Purpose of Patent Law*

The rationale for protecting intellectual property, as summarised in the WIPO Handbook, consists of two main reasons:<sup>68</sup>

One is to give statutory expression to the moral and economic rights of creators in their creations and the rights of the public in access to those creations. The second is to promote, as a deliberate act of Government policy, creativity and the dissemination and application of its results and to encourage fair trading which would contribute to economic and social development.

It is the second reason that is of main importance, in this context. This rationale is economically motivated, in that the purpose is to create incentives for private parties to invest in creations and innovations. If there was no protection for information there would be a problem of competition by free-riders, at least in situations where costs of copying and imitation are low. The prices of the products produced on the basis of such information could be driven down by competitors to the marginal cost of production and dissemination, which many times reaches close to zero. Subsequently, the innovator would not be able to regain the sunk costs of his investment into the production of information.<sup>69</sup> Protecting information as

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<sup>66</sup> Article 31 (h) TRIPS.

<sup>67</sup> Kur & Dreier 2013 pp. 84-85.

<sup>68</sup> WIPO Intellectual Property Handbook: *Policy, law and use* (2004) p. 3.

<sup>69</sup> Käseberg, Thorsten. *Intellectual Property, Antitrust and Cumulative Innovation in the EU and the US*. Hart Publishing Ltd, Oxford 2012 p. 10 et seq.

intellectual property creates incentives for innovation, by ensuring recuperation of the innovator's investment. This is known as the 'reward theory'.<sup>70</sup>

#### *4.2.1 The Tragedy of the Commons*

A common economic justification for IPRs is the so-called 'tragedy of the commons'. The problem with the existence of common property is that it will inevitably be overused, as a great number of private actors use the commons at their own discretion and in disregard of the costs that this use imposes. Examples of this theory in practice includes the overgrazing of common pastures and the depletion of fisheries. According to the theory, this issue is solved by the introduction of private property, as a property owner is more inclined to internalize the costs as well as the benefits of use.<sup>71</sup> Thus, in the case of IPRs, to steer clear of this problem an 'artificial' exclusivity is created, with the rights to immaterial goods resembling the property rights to material goods, such as land.<sup>72</sup>

However, there also exists a contrasting theory known the 'tragedy of the anticommons'. According to this theory, when too many people are able to exclude others there is a high risk of underuse of resources, as a consequence of privatisation and the exclusive rights conferred on the owners of private property. Whereas the 'tragedy of the commons' manifests itself as an overuse of resources, as a consequence of separate persons being assigned right of usage; the 'tragedy of the anticommons' relates to a situation where resources are prone to underuse, due to the fact that multiple owners each have a right to exclude others from a scarce resource and no one has an effective privilege of use.<sup>73</sup> There is a substantial risk that such a situation arises in the case of patent thickets. When there are overlapping patent rights owned by a multiple set of owners the patentee's right to exclude others may result in an underuse of the subject-matter of those patents.

#### *4.2.2 The Dissemination of Technology*

An important function of the patent system is the 'dissemination of technology'. When applying for a patent, the applicant is required to disclose the invention in a manner sufficiently clear and complete for the invention to be carried out by a person skilled in the

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<sup>70</sup> Ibid p. 11.

<sup>71</sup> Lemley, Mark A. Ex Ante versus Ex Post Justifications for Intellectual Property. *The University of Chicago Law Review* (Winter, 2004), Vol. 71, No. 1, pp. 129-149 (p. 141).

<sup>72</sup> Kur & Dreier 2013 p. 6.

<sup>73</sup> Colangelo, Giuseppe. Avoiding the Tragedy of the Anticommons: Collective Rights Organizations, Patent Pools and the Role of Antitrust. *LUISS Law and Economics Lab*, Working Paper No. IP-01-2004 pp. 7 et seq.

art.<sup>74</sup> Even though the patented technology may not be exploited commercially by third parties without authorization, the information contained in the patent is publicly available for use in research and experimental endeavours. Patent terms are also limited, and once the term expires the technology becomes part of the public domain.<sup>75</sup> The obligation of the applicant to disclose his invention therefore creates a ‘dissemination of technology’, allowing others to build upon the invention and thereby ensuring the evolution of technology in the industry in question. This is because information is often *cumulative*, at least in the fields of science and technology, which is the realm of patents. This is due to the fact that each new creation constitutes an input towards the creation of new information.<sup>76</sup> In other words, to paraphrase Sir Isaac Newton, each scientist “stands on the shoulders of giants”. The rights of the public in access to creations, in the words of the WIPO Handbook,<sup>77</sup> are also satisfied by the duty of the applicant to disclose his invention. To summarise, patent law is basically designed to promote the rather nebulous concept of innovation. The question of whether or not patent law succeeds in promoting this goal is of great importance, and remains open to debate.

### *4.3 The Viability of the Patent System*

Over the last couple of years there has been an increase in criticism of the patent system. There are a few propositions that have been put forward by legal scholars that serve as the basis for this criticism, such as: i) IPRs raise entry barriers and increase costs to users; (ii) innovation often proceeds without IPRs; and (iii) IPRs usually or often entrench large incumbent firms.<sup>78</sup> According to Barnett, the recent actions of the three US branches of government “rest on the general view that the IP system, and patent rights in particular, has been strengthened excessively to the benefit of a small group of opportunistic IP holders and to the detriment of the public at large”.<sup>79</sup>

#### *4.3.1 Patent Thickets and the Blocking of Innovation*

In the field of technology, for new works to be created it is often required that older works are accessed and used. Therefore, technological innovation can be said to be *cumulative*, as each

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<sup>74</sup> Article 29 (1) TRIPS.

<sup>75</sup> WIPO Intellectual Property Handbook: *Policy, law and use* (2004) p. 167.

<sup>76</sup> Käseberg 2012 p. 10.

<sup>77</sup> WIPO Intellectual Property Handbook: *Policy, law and use* (2004) p. 167.

<sup>78</sup> Barnett, Jonathan M. Three Quasi-Fallacies in the Conventional Understanding of Intellectual Property. *Journal of Law, Economics and Policy* (2016) Vol. 12.1, pp. 1-46 (p. 1).

<sup>79</sup> *Ibid* p. 2.

new invention builds upon earlier discoveries. This is connected to the aforementioned concept of the ‘dissemination of technology’. If it is assumed that innovation is indeed *cumulative*, the granting of a patent may lead to its proprietor being conferred with the power to block improvements and follow-on innovation.<sup>80</sup> Patentees are often inclined to grant licences and disclose information, as they stand to share in the profits generated by follow-on innovation. However, the aforementioned issues may arise in cases when bargaining breaks down, or if the patent owner has a strategic incentive to prevent follow-on innovation and/or its commercialisation.<sup>81</sup> If a new or improved product is complementary to existing patent protected technology, a dominant firm’s refusal to license the relevant patent(s) may cause harm to dynamic competition, for instance by preventing *research* into or the *marketing* of follow-on innovation or improvements.<sup>82</sup> In the case of ‘patent thickets’ patent owners with a dominant position will have the ability, and sometimes also the incentive, to do so.

There is a similar trend of criticism of patents in Europe to that of the US, especially on the basis of competition law. For instance, lately there has been a growing policy concern about the aforementioned ‘patent thickets’.<sup>83</sup> Shapiro defines patent thickets as “an overlapping set of patent rights requiring that those seeking to commercialise new technology obtain licences from multiple partners”.<sup>84</sup> This issue has been brought to the fore in the mobile telecommunications sector in regards to SEPs, see section 3.1. The overlapping set of patent rights, in the case of a thicket, means that each party essentially controls one of several complementary inputs into a production process. Regibeau and Rockett argue that the consequent independent pricing of such complementary goods results in a higher total price of the final product than if the patents were controlled by a single owner, which leads to a problem known as ‘royalty stacking’.<sup>85</sup> This view can be related to the proposition that IP rights increase cost to users, as expressed by Barnett, see above.

As a basis for the issue of patent thickets, there is an underlying assumption that the current trend of proliferation of thickets is a result of an excessive leniency in patent offices’ application of traditional patentability criteria. It is claimed that many patents granted

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<sup>80</sup> Käseberg 2012 p. 13.

<sup>81</sup> Ibid p. 13

<sup>82</sup> Ibid p. 109.

<sup>83</sup> Regibeau, Pierre & Rockett, Katharine. Assessment of Potential Anticompetitive Conduct in the Field of Intellectual Property Rights and Assessment of the Interplay Between Competition Policy and IPR Protection. In COMP/2010/16 (ed), (European Union, 2011), p. 12.  
[http://ec.europa.eu/competition/consultations/2012\\_technology\\_transfer/study\\_ipr\\_en.pdf](http://ec.europa.eu/competition/consultations/2012_technology_transfer/study_ipr_en.pdf) (retrieved 2016-12-08).

<sup>84</sup> Shapiro 2001 p. 119.

<sup>85</sup> Regibeau & Rockett 2011 p. 13.

lack the requisite ‘inventive step’. Furthermore, if the technology in question is fragmented into patents for portions of knowledge, then there is a greater likelihood that the patents are owned by wide variety of parties.<sup>86</sup> Rather than reforming patent law, it has been proposed that the issue is to be solved through antitrust regulation.<sup>87</sup> For instance, standard setting-organisations can be a useful arrangement to alleviate these problems, which was reviewed by the Commission in the *Horizontal Guidelines*, see section 3.2. However, a far too vigorous antitrust regulation in the matter can have the effect of weakening patent rights.

#### 4.3.2 *The Value of Strong Patent Protection*

Barnett argues that there is an overestimation of the adverse effects and an underestimation of the positive effects of strong IP protection, in recent legal scholarship.<sup>88</sup> A weakening of IP protection could protect large incumbent firms that maintain integrated production and distribution structures, while raising entry barriers to smaller entities that often operate as stand-alone R&D entities. In lieu of IPRs, firms can employ alternative combinations of business strategies and technological controls to achieve the same entry barriers. Smaller, R&D intensive firms have a tendency to support expansions of patent rights, as they lack independent production and distribution capacities and thus are more reliant on IP protection.<sup>89</sup> Consequently, if R&D and innovation is to be promoted and incentivized, patents should enjoy a relatively strong protection. An incremental extension of IP rights would lead to the long-term gains of increased innovative output, as well as the short-term losses from increased pricing and the transaction costs of IP-related licensing and dispute-resolution activities.<sup>90</sup> However, competition law should be taken into account, in order to form a balanced view of the issues at hand. As stated above, the patentee’s exclusive rights are not *absolute*. As a consequence, the protection of those rights should not go so far as to disproportionately restrict the interests of EU competition law, most notably the protection of an effective competitive process.<sup>91</sup>

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<sup>86</sup> Ibid p. 16.

<sup>87</sup> Ibid p. 16 et seq.

<sup>88</sup> Barnett 2016 p. 3 et seq.

<sup>89</sup> Ibid p. 5.

<sup>90</sup> Ibid p. 6 et seq.

<sup>91</sup> See Guidance Paper para. 6.

## 5. Enforcement of Article 102 TFEU

### 5.1 Case Law

#### 5.1.1 Background

In cases concerning the seeking of an injunction by an SEP owner against an alleged infringer, there has been a divergence of opinions on how to settle the issue. The German courts have generally taken an approach that is more beneficial to patent owners, most notably in the *Orange Book* case, whereas the Commission has taken an implementer-friendly approach, as was seen in the *Samsung* and *Motorola* cases, which concerned standards in the telecommunications industry.<sup>92</sup> This has, of course, created some uncertainty in regards to the application of EU antitrust law, as well as a great deal of uncertainty for both patentees and implementers alike on how to act vis-à-vis litigation concerning patent infringement. The *Huawei* case has clarified this dichotomy in interpretation to a certain degree.

#### 5.1.2 The European Commission's Decisions in *Samsung* and *Motorola*

The *Samsung* and *Motorola* cases concerned SEPs in the telecommunications sector, which were included in the standardisation agreement of ETSI. Samsung and Motorola sought injunctions against Apple on the basis of its alleged infringement of their respective SEPs. Both companies had committed to license their SEPs on FRAND terms and conditions as part of the standard-setting process in ETSI.<sup>93</sup> The commission stated in its preliminary conclusions that concerns had been raised regarding the compatibility of seeking such injunctions with Article 102, especially given the committal to license on FRAND terms and the lack of objective justification.<sup>94</sup>

The Commission held that the relevant product markets encompass the licensing of technologies as specified in the respective standard technical specifications. For the implementers of standard-compliant mobile devices there were no substitutes for the standardized technology, and consequently the licensing of that specific technology constituted a separate relevant product market.<sup>95</sup> Regarding the question of dominance, the Commission stated that the mere ownership of an SEP did not, in itself, confer a dominant

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<sup>92</sup> Norton Rose Fulbright. The EU Court of Justice Judgment in *Huawei v ZTE* – important confirmation of practical steps to be taken by Standard Essential Patent holders before seeking injunctions. 2015-08-07. <http://www.nortonrosefulbright.com/knowledge/publications/131306/the-eu-court-of-justice-judgment-in-huawei-v-zte-important-confirmation-of-practical-steps-to-be-taken-by-st> (retrieved 2016-11-07)

<sup>93</sup> Case AT.39939, *Samsung* [2014] para. 2 and Case AT.39985, *Motorola* [2014] para. 1.

<sup>94</sup> *Samsung* para. 3 and *Motorola* paras. 2-3.

<sup>95</sup> *Samsung* paras. 41-43 and *Motorola* paras. 212-213.

position.<sup>96</sup> The dominance must be assessed on the basis of all relevant factors, and in particular: (i) the indispensability of the standard on which the SEP reads for manufacturers of standard-compliant products, and (ii) the industry lock-in to that standard.<sup>97</sup> The standards in both cases were found to be widely adopted in the industry, and subsequently it was indispensable for manufacturers to comply with those standards.<sup>98</sup> Furthermore, industry players were found to be ‘locked-in’ to the standards, especially because of their heavy investments into the infrastructure as well as other sunk costs incurred.<sup>99</sup> Therefore the Commission concluded that the undertakings held dominant positions in the relevant markets.

In the case of an SEP, the Commission held that when a patent owner has given a commitment to license on FRAND terms, and the potential licensee is *willing* to negotiate a licence on those terms, the patent owner’s seeking of an injunction could constitute an abuse of a dominant position, within the meaning of Article 102. When assessing the anti-competitive effects, the Commission held that the seeking of injunctions could be an *exclusionary* abuse, by excluding a rival manufacturer of standard-compliant mobile devices, i.e. Apple, from the market. It could also be an *exploitative* abuse, as the practice had the capability of inducing the potential licensee to accept disadvantageous licensing terms, as compared to those terms that would have been accepted in the absence of an injunction.<sup>100</sup>

It can be claimed that the Commission’s approach creates a great deal of freedom for the potential licensee to use the patent, as his *willingness* to negotiate a licence effectively precludes the patentee’s ability to seek an injunction. Such freedom can, of course, be abused, for instance through the potential licensee’s stalling of negotiations and through its continued use of the patent without the payment of licence fees, to the detriment of the patent holder. In support of this view, Motorola argued that Apple had until recently before the case been an unwilling licensee that had refused to make a FRAND licence offer for the patent protected technology.<sup>101</sup> Therefore one can argue that a fair measure of good faith should be required on the part of the potential licensee during the process of licensing negotiations.<sup>102</sup> However, it ought to be very difficult to prove whether the potential licensee has been acting in good faith.

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<sup>96</sup> Samsung para. 46.

<sup>97</sup> Motorola para. 226.

<sup>98</sup> Samsung para. 46 and Motorola paras. 227-230.

<sup>99</sup> Samsung para. 49 and Motorola paras. 231-236.

<sup>100</sup> Samsung para. 62 and Motorola paras. 319-320.

<sup>101</sup> Motorola para. 430.

<sup>102</sup> In *Huawei* the ECJ established good faith as a condition in regards to the alleged infringer’s obligation to respond to the patent owner’s offer for a licence on FRAND terms.

### 5.1.3 Orange Book-Standard

In Germany a fair amount of case law has been established in regards to SEPs. The *Orange Book* case concerned the seeking of injunctions by the patentee, Phillips, against a number of CD-R and CD-RW manufacturers. It was established that all manufacturers of such products had to comply with the standard comprised of the specifications listed in the ‘Orange Book’. Therefore, they inevitably had to use Phillips’s patent, and the grant of licences under that patent consequently constituted an independent market.<sup>103</sup> The defendants claimed that the patent holder, through his legal action, was abusing his dominant position by preventing them from gaining access to the market, thereby infringing Article 102 TFEU. The Federal Court of Justice concluded that the licensing of an essential patent under a standard is a market in itself and the proprietor of that patent is the sole supplier of that market, i.e. a monopolist. The court concluded that a dominant firm abuses its dominant position if it discriminates against or obstructs a proposed licensee by refusing to grant a patent licence.<sup>104</sup> However, in the present case the court held that the patentee’s seeking of an injunction against an alleged infringer will only be considered an abuse of a dominant position if: (i) the potential licensee has made an *unconditional offer* to conclude a licence agreement by which it remains bound, and which the patentee cannot reject without unreasonably obstructing the licensee or without violating the prohibition of discrimination; and (ii) the potential licensee complies with the obligation of the licence, if he already uses the subject matter of the patent, in particular by paying the royalty fees.<sup>105</sup> Thus, in contrast to *Samung* and *Motorola*, it was not sufficient for the alleged infringer to be *willing* to conclude a licensing agreement. The Federal Court of Justice obviously takes a far more patentee-friendly approach than the Commission, and implements quite a heavy burden on the potential licensee. The case has also been criticized for not giving any leeway for potential licensees to question the patent’s validity or the royalty fee.<sup>106</sup> This approach, of course, strengthens patent protection to a high degree. It is important to note, however, that, in contrast to *Samsung* and *Motorola*, Phillips had not made a commitment to license on FRAND terms.<sup>107</sup>

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<sup>103</sup> German Federal Court of Justice, Case KZR 39/06, *Orange book standard* [2009], English translation para. 20.

<sup>104</sup> *Orange Book Standard* para. 27.

<sup>105</sup> *Orange Book Standard* para. 29

<sup>106</sup> Lundqvist 2014 p. 321.

<sup>107</sup> Kur & Dreier 2013 p. 392.

#### 5.1.4 Huawei

Huawei is the owner of a patent essential to the ‘Long Term Evolution’ (LTE) standard, for which it has given a commitment to license on FRAND terms. ZTE Corp, on the other hand, markets products equipped with software linked to that standard. After patent licensing negotiations broke down, Huawei sought an injunction prohibiting the patent infringement allegedly committed by ZTE. The Landgericht Düsseldorf, which handled the case, held that the injunction’s lawfulness hinged on whether or not Huawei could be considered to be abusing its dominant position. The court argued for using the approach set out in *Orange-Book Standard*, and thus held that the seeking of an injunction by a patentee should only constitute an abuse of a dominant position in certain circumstances, see above.<sup>108</sup>

Furthermore, according to the court, the exercise of a statutory right, i.e. the patent owner’s exclusive rights cannot, in itself, constitute an abuse of a dominant position. Therefore, the licensee’s ‘willingness to negotiate’ is not a satisfactory criterion for such an abuse.<sup>109</sup> Due to the divergence in interpretations adopted in *Orange-Book Standard* and in the EC’s decisions, the court referred the question of abuse of a dominant position to the ECJ.

In regards to the conflict between competition law and intellectual property rights, the ECJ held that a balance had to be struck between maintaining a free competition and the requirement to safeguard the proprietor’s IPRs and its right to effective judicial protection.<sup>110</sup> The existence of a dominant position was not contested by the parties, and the question referred to the court related only to the existence of an abuse.<sup>111</sup> Although it is settled case law that the exercise of an exclusive right linked to an IPR cannot in itself constitute and abuse of a dominant position, such an exercise may in *exceptional circumstances* involve abusive conduct, for the purposes of Article 102.<sup>112</sup> However, the court noted that the present case differed from earlier case law due to the fact that the patent at issue is essential to a standard established by a standardisation body, rendering its use indispensable to all competitors which envisage manufacturing standard-compliant products.<sup>113</sup> The patent’s SEP status grants the patentee the ability to prevent the products of competitors from appearing on the market, and consequently reserving the market for itself. The patent owner’s irrevocable commitment to grant licences on FRAND terms also creates a legitimate expectation for third

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<sup>108</sup> Case C-170/13, *Huawei v. ZTE* [2015] para. 29-32.

<sup>109</sup> *Huawei* para. 38.

<sup>110</sup> *Huawei* para. 42.

<sup>111</sup> *Huawei* para. 43.

<sup>112</sup> Case 238/87, *Volvo v. Veng* [1988] para. 9, C-241/91 P and C-242/91 P, *RTE and ITP v Commission* [1995] para. 50 and C-418/01, *IMS Health* [2004] para. 35.

<sup>113</sup> *Huawei* para. 48-49.

parties that such licences will, in fact, be granted. A refusal to grant such a licence by the proprietor may, in principle, infringe Article 102. However, the parties were not in agreement on how FRAND should be interpreted. The court held that an SEP owner must comply with conditions which seek to ensure a fair balance between the interests concerned, in order for an action for a prohibitory injunction to not be regarded as an abuse of a dominant position.<sup>114</sup>

The rights of the patent owner are protected in the EU Charter of Fundamental rights by Article 17 (2), concerning the ‘Right to property’, and Article 47, which stipulates the right to an effective remedy and to a fair trial. Due to the need for a high level of IP protection, the court held that the patentee may not, in principle, be deprived of the right to have recourse to legal proceedings to ensure effective enforcement of its exclusive rights. Consequently, any user of the IPR, other than the owner, must, in principle, obtain a licence prior to any use.<sup>115</sup> However, the court argued that an SEP owner may not pursue legal action against an alleged infringer without notice or prior consultation. Because of the large number of patents contained in a standard, it is not clear that an implementer will be aware that it is infringing upon the subject-matter of the SEP. After the alleged infringer has expressed a *willingness* to conclude a licensing agreement on FRAND terms, the proprietor of the SEP must present a specific, written offer for a licence on such terms.<sup>116</sup> In turn, the alleged infringer is obliged to respond to that offer in accordance with recognised commercial practices in the field and in good faith, and present a counter-offer if it does not wish to accept the offer of the patentee.<sup>117</sup> Presumably, if the alleged infringer only aimed at stalling licensing negotiations it would be regarded as acting in bad faith. As long as the SEP owner has followed these steps prior to seeking an injunction, it will not have committed an abuse of its dominant position, within the meaning of Article 102.

In conclusion, in light of the ECJ’s judgement, legal action in the form of an injunction can be seen as a last resort for the proprietor of an SEP. It seems that the court is determined to ensure that the parties properly exhaust the potential of a ‘peaceful’ negotiation before the issue is resolved by way of an injunction on the basis of patent infringement. Although the alleged infringer is prevented from acting in bad faith in licensing negotiations, it is given quite a great deal of leeway, at least in comparison to the judgement in *Orange-Book Standard*. However, it must be claimed that the ECJ’s judgement strikes somewhat of a

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<sup>114</sup> Huawei para. 52-55.

<sup>115</sup> Huawei para. 58.

<sup>116</sup> Huawei para. 60-63.

<sup>117</sup> Huawei para. 65-66.

fair balance between the divergent approaches of the Commission and the German courts. For instance, according to the court's judgement the alleged infringer's 'willingness to negotiate' is not sufficient as a criterion for abuse, instead he must be *willing* to conclude a licensing agreement on FRAND terms. The notion of a *willing* licensee therefore becomes an important question of interpretation. The potential licensee should be prevented by procedural rules from being able to unjustifiably delay the negotiations, and he must also be willing to remunerate the patentee for any use of the patent prior to the granting of a licensing agreement. Good faith may be ensured by a requirement on the potential licensee to promptly pay an agreed royalty fee.<sup>118</sup>

## 5.2 The Relevant Product Market

One of the most important factors in the determination of the relevant product market is the degree of substitutability. For instance, when products have materially different characteristics and/or are not functionally interchangeable they are generally not considered to form part of the same relevant market.<sup>119</sup> If the products in question have sufficiently different characteristics the willingness of customers to substitute the one product with the other is limited. According to the ECJ in *Hoffmann-La Roche*, a sufficient degree of interchangeability is required between the products forming part of the same market for there to be effective competition between those products.<sup>120</sup> The standardised technology in the telecommunications sector is generally not substitutable with other products, because it is often not possible to work or design around a patented product once it has been implemented into a standard, see section 3.3. The relevant market for an SEP is the market for the licensing of technology, a so-called 'technology market'. This is due to the fact that SEP owners sell the rights to their technology, through the granting of patent licences, separately from the underlying product. This is especially the case with non-practising entities, where the entire revenue stream originates from licensing fees. In the words of the Technology Transfer Guidelines<sup>121</sup>, the relevant technology markets consist of the licensed technology rights and its substitutes, that is to say, other technologies which are regarded by the licensees as interchangeable with or substitutable for the licensed technology rights.<sup>122</sup> Thus the licensing

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<sup>118</sup> Temple Lang 2015 p. 589.

<sup>119</sup> Bellamy & Child. *European Union Law of Competition*. 7<sup>th</sup> Edition. Oxford University Press, Oxford 2013 p. 244.

<sup>120</sup> Case 85/76, *Hoffmann-La Roche v Commission* [1979].

<sup>121</sup> Guidelines on the application of Article 101 of the Treaty on the Functioning of the European Union to technology transfer agreements [2004] OJ C101/2.

<sup>122</sup> Technology Transfer Guidelines para. 22.

of the standardised technology, on which the SEPs read, in *Samsung* and *Motorola* constituted a separate market, since there was no interchangeable technology with which to substitute it.<sup>123</sup> In *Huawei* the ECJ did not analyse the relevant market, but if it had done so the conclusion would more than likely have been the same as in *Samsung* and *Motorola*, as the case concerned the licensing of an SEP.

### 5.3 Dominance

In settled case law, dominance has been defined in terms of an undertaking's 'economic strength' and its ability to act independently on the market.<sup>124</sup> Furthermore, it has been held by the ECJ that a dominant position does not preclude some competition, rather its existence is dependent on the undertaking's ability to influence the conditions of competition occurring on the market.<sup>125</sup> In *Continental Can* the ECJ held that "the definition of the relevant market is of essential significance to the determination of whether or not an undertaking is dominant".<sup>126</sup> Dominance only exists in relation to a relevant market. Consequently, the question of dominance hinges on the market definition. If the market is defined very narrowly it is more likely that the undertaking in question is found to be dominant. In a situation where the relevant market is defined as the licensing of standardised technology, the patentee will inevitably hold a market share of 100 %, due to the exclusivity of its standard-essential patent. However, the mere ownership of an SEP does not in itself confer a dominant position.<sup>127</sup> Of particular importance to the conclusion of dominance was the indispensability of the standard, on which the SEP reads, and the industry lock-in to that standard.<sup>128</sup> This in accordance with case law since *Magill*<sup>129</sup>, which states that the owner of an IPR is dominant if the ownership of the IPR enables them to foreclose potential competitors from a downstream product market.<sup>130</sup> Even though the existence of a dominant position was not contested in *Huawei*, the Advocate General questioned the presumption of dominance, and that this must be determined by the national courts on a case-by-case basis. Huawei argued that users of the standard which hold their own SEPs may derive a degree of countervailing power from those

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<sup>123</sup> *Samsung* paras. 41-43 and *Motorola* paras. 212-213.

<sup>124</sup> Case 27/76, *United Brands v. Commission* [1978], para. 65.

<sup>125</sup> Case 85/76, *Hoffmann-La Roche v Commission* [1979], para. 38-39.

<sup>126</sup> Case 6/72, *Europemballage Corp and Continental Can Co Inc v. Commission* [1973], para 32.

<sup>127</sup> *Samsung* para. 46.

<sup>128</sup> *Motorola* para. 226.

<sup>129</sup> Cases C-241/91 P and C-242/91 P, *RTE and ITP v Commission* [1995].

<sup>130</sup> Körber, Torsten. Abuse of a Dominant Position by Legal Actions of Owners of Standard-Essential Patents: Huawei Technologies Co. Ltd v. ZTE Corp. *Common Market Law Review* 53 (2016), Issue 4, pp. 1107-1120 (p. 1118).

patents. This may, in certain circumstances, lead to the offset of the SEP owner's dominant position.<sup>131</sup> In a similar vein, Motorola alleged that it did not enjoy a dominant position vis-à-vis Apple, citing, *inter alia*, the size of that company's patent portfolio, consisting of SEPs and non-SEPs alike, which makes it an indispensable trading partner.<sup>132</sup> The Commission, however, held that the bargaining power of potential licensees in regards to the licensing of their patents could not be considered a sufficiently effective constraint on Motorola's dominance.<sup>133</sup>

The Commission has often been criticised for defining markets too narrowly and for its subsequent finding of dominance on the basis of that market definition. An easy finding of dominance, coupled with the wide interpretation of 'abuse', has led to the Commission playing a notably interventionist role in the market with its application of Article 102.<sup>134</sup> When the market is defined so narrowly as to merely encompass the licensing of technology which falls within the subject-matter of the patent, it is easy for the Commission to find that the proprietor of the patent is dominant. It seems that merely owning an SEP tied to a telecommunications standard, which the proprietor has committed to license on FRAND terms, results in the Commission assuming anti-competitive behaviour and market power.<sup>135</sup> Unfortunately, the ECJ did not analyse the question of dominance and market definition in *Huawei*. Therefore, the Commission's analysis still stands.

#### *5.4 Exploitative or Exclusionary Conduct*

As mentioned earlier, an *exploitative* abuse involves a dominant undertaking exploiting its customers by means of its market power, in particular through "imposing unfair purchase or selling prices or other unfair trading conditions", in the wording of Article 102(a). An *exclusionary* abuse, on the other hand, is conduct which impedes effective competition by excluding (foreclosing) competitors.<sup>136</sup> It is rare for the Commission to intervene in cases which purely involve unfair pricing. Such an intervention would be of a regulatory nature, and there are broader concerns as to when it is desirable for the Commission to intervene on this issue. There are also difficulties involved in assessing whether selling prices should be considered unfair and/or excessive.<sup>137</sup> It is not in the purview of the Commission to be a

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<sup>131</sup> Opinion of A.G. Wathelet in Case C-170/13, *Huawei v. ZTE* [2015], para 53 et seq.

<sup>132</sup> Motorola para. 237 et seq.

<sup>133</sup> Motorola para. 242.

<sup>134</sup> Jones & Sufrin 2014 p. 305.

<sup>135</sup> Pierce 2016 p. 369.

<sup>136</sup> Jones & Sufrin 2014 p. 283.

<sup>137</sup> Jones 2014 p. 18.

pricing authority, and subsequently their intervention in this issue may at many times be inappropriate. In the case of an SEP owner seeking an injunction against an alleged infringer, the proprietor could abuse its dominant position by: (i) excluding a rival manufacturer of standard-compliant products from the market, or (ii) inducing that manufacturer to accept disadvantageous licensing terms, compared to those which it may have accepted in the absence of injunctions being sought.<sup>138</sup> If the ECJ had chosen to view the practice as an abuse according to option (ii), it would have had to define FRAND. In other words, if the court is to claim that the licensing terms are unfair, it would have to define which licensing terms would be fair. In any case, a FRAND royalty rate would have had to be determined on the basis of factual evidence, and in preliminary rulings under Article 267 TFEU the court does not make findings of fact.<sup>139</sup> As a consequence, it was more suitable to review the case as an exclusionary abuse.

### 5.5 *The Foreclosing of Competition*

Although the *Huawei*-case and the idea of injunctive relief as an abuse of a dominant position is a novelty, there is a great deal of settled case law on the closely related topic of refusal to supply in regards to intellectual property rights. In *AB Volvo v. Erik Veng* a car manufacturer had refused to license the design rights on its car parts to third party retailers.<sup>140</sup> The ECJ held that the refusal to license was not an abuse per se. The design constituted the very subject-matter of the proprietor's exclusive right, and a compulsory licence would lead to the proprietor being deprived of the substance of his exclusive right. However, a refusal can be considered an abuse of a dominant position if it involves certain abusive conduct, such as, *inter alia*, the arbitrary refusal to supply.<sup>141</sup> Building on the foundations created by this case, the ECJ ruled in *Magill* that a refusal to license might constitute an abuse in exceptional circumstances.<sup>142</sup> The court held that the dominant undertakings abused their dominant positions by foreclosing competition in the secondary market, reserving it for themselves. Furthermore, the refusal prevented the appearance of a new product, for which there were no substitutes, and there was no justification for the refusal.<sup>143</sup> The court focused on the specific conditions of the case, and shied away from discussing the nature of intellectual property and

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<sup>138</sup> Samsung para. 62 and Motorola paras. 319-320.

<sup>139</sup> Temple Lang 2015 p. 595.

<sup>140</sup> Case 238/87, *AB Volvo v. Erik Veng* [1988]

<sup>141</sup> *AB Volvo v. Erik Veng* paras. 8-9.

<sup>142</sup> Cases C-241/91 P and C-242/91 P, *RTE and ITP v Commission* [1995].

<sup>143</sup> *Magill* paras. 52-57.

its relationship to competition law.<sup>144</sup> For all intents and purposes, the court follows a very similar approach in *Huawei*. First, the court clarifies that the exercise of the exclusive rights granted by an IPR cannot in itself constitute an abuse. Then, it provides the *exceptional circumstances* which renders the exercise of those rights abusive. Further reflection on the interplay and complex relationship between IPRs and antitrust rules is conspicuously absent.

Based on an effects-based interpretation of Article 102, the protection of consumer welfare would seemingly be a reason for prohibiting the practice in *Huawei*. This harm could come in the form of, for instance, higher prices, the limiting of quality or the reduction of consumer choice.<sup>145</sup> One concern about the conduct in *Huawei* is that the hold-up power of SEP owners would enable them to secure rewards for innovation beyond their true value to consumers. In other words, the price of the patented technology, as well subsequent products made on the basis of that technology, would be excessive. Arguably, another concern in the case was that the SEP owners' ability to hold-up implementers would undermine the standard-setting process, preclude open and effective access to the standard and distort competition in the downstream market.<sup>146</sup> Although this would more than likely harm consumer welfare as well, this concern relates more to the interest of protecting the structure of the market. On the basis of a teleological interpretation, this relates to the objective of ensuring effective competition within the common market and, in the wording of Article 3 TEU, "a highly competitive social market economy". Focusing on the structure of the market means that the objective is to protect an effective competitive process, rather than merely protecting competitors.<sup>147</sup> Therefore, in *Huawei* the ECJ is not primarily concerned with protecting licensees and implementers per se. Instead, it seems that the court aims to create a balance between licensees and licensors. Consequently, in order for the SEP owner's action for a prohibitory injunction to not be considered abusive, it has to "comply with conditions which seek to ensure a fair balance between the interests concerned".<sup>148</sup>

On the face of it, the court therefore means to implement an approach that does not disproportionately favour implementers, to the detriment of the proprietors of SEPs. The ruling is significantly more implementer-friendly than *Orange-Book Standard* and thus deviates from German case law in its leniency towards alleged infringers of patented subject-

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<sup>144</sup> Jones & Sufirin 2014 p. 528.

<sup>145</sup> See Guidance Paper para. 19, regarding 'Foreclosure leading to consumer harm ('anti-competitive foreclosure')

<sup>146</sup> Jones 2014 p. 19.

<sup>147</sup> Guidance Paper para. 6.

<sup>148</sup> *Huawei* para. 55.

matter. However, the court's judgement is far more balanced than the Commission's decisions in *Samsung* and *Motorola*. Although the court made it clear that the patentee's exercise of his exclusive rights cannot be considered an abuse per se, the judgement can be seen as representing another instance in EU case law of transforming intellectual property into liability rules, which will be investigated further in the next chapter.

## 6. The Relationship between Intellectual Property and Competition Law

### 6.1 Common Goals

Essentially, intellectual property protects information, irrespective if it is in the form of technology or a work of art. The intangible nature of intellectual property means that three main features can be discerned in regards to IPRs as an economic good: (i) information is *costly to exclude*, (ii) it is non-rival, in as much as one person's use does not limit his own use or preclude another person's use of it, and (iii) it is often *cumulative*, at any rate in the fields of science and technology.<sup>149</sup> As a consequence of the first two features, there is a potential problem of free-riding in the market. If the costs of imitation and copying are much lower than the cost of R&D, economic incentives for innovating will be quashed, see section 4.2. Especially in the case of patents, the third feature is of particular importance vis-à-vis the interests of antitrust regulation. The *cumulativeness* of inventions and innovation, protected by the patent system, means that other actors can build on existing R&D and thus further technological and scientific progress. In the Technology Transfer Guidelines, it is stated that both IPRs and competition rules are necessary to create an open and competitive market economy, since:<sup>150</sup>

Intellectual property rights promote dynamic competition by encouraging undertakings to invest in developing new or improved products and processes. So does competition by putting pressure on undertakings to innovate.

It can be discerned from the stated objective of creating an 'open and competitive market economy' that the Commission is concerned with the structure of the market, aside from the

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<sup>149</sup> Käseberg 2012 p. 10.

<sup>150</sup> Technology Transfer Guidelines para. 7.

aim of promoting consumer welfare and an efficient allocation of resources.<sup>151</sup> In situations where market power is distorted as a consequence of intellectual property protection, as in the case of SEPs, antitrust rules may be used as a complement to ensure that the potential dynamic benefits of IPRs actually occur, such as the ‘dissemination of technology’. However, the purview of competition authorities and the courts is to protect the competitive process per se, and not to protect competitors.<sup>152</sup> Practically speaking, these two interests may at times align. An efficient competitive process will, of course, ensure that undertakings, other than the dominant firms, can compete on the market. But it is crucial that a clear distinction is made between competition per se and competitors. If, for instance, licensees are granted to many concessions vis-à-vis their licensors on the basis of antitrust regulation, the patent system will be significantly weakened, with potential harm to innovation as a consequence.

## 6.2 Property or Liability Rules?

The restrictions, imposed by the ECJ in *Huawei*, on the SEP owner’s ability to use injunctive relief against an alleged infringer has the effect of creating a compulsory licensing scheme. As long as the alleged infringer is *willing* to conclude a licensing agreement, the patentee cannot seek a prohibitory injunction without committing an abuse of its dominant position under article 102. Although the approach was different, *Orange-Book Standard* had the same effect of creating a compulsory licensing scheme. From a theoretical perspective, this is a restriction on intellectual property. Instead of possessing the features of property, competition law transforms intellectual property law into liability rules.<sup>153</sup> As a consequence of the widely recognized status of IPRs as property,<sup>154</sup> any infringement of the exclusive rights of the rights holder could be seen as a form of expropriation. However, the main purpose of intellectual property law is to incentivise creativity and innovation. As such, the exclusivity is only suitable as a regulatory model in cases where a non-exclusive scheme could not achieve the same beneficial societal effects. Users will still be obliged to pay for the privilege of unrestricted access, but the exclusivity gives way to liability rules.<sup>155</sup>

For the patent system to function properly mechanisms need to be in place that sustains the patentee as a market participant, but there also has to be mechanisms that control

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<sup>151</sup> Technology Transfer Guidelines para. 5.

<sup>152</sup> Guidance Paper para. 6.

<sup>153</sup> Lundqvist 2014 p. 327.

<sup>154</sup> For instance, see Article 17(2) Charter of Fundamental Rights of the European Union.

<sup>155</sup> Kur, Annette & Schovsbo, Jens. Expropriation or Fair Game for All? The Gradual Dismantling of the IP Exclusivity Paradigm. *Max Planck Institute for Intellectual Property, Competition & Tax Law Research* (2009), Paper No. 09-14 (p. 2)

the patentees' exercise of their rights. This balance serves to make sure that patent owners are not undercompensated or overcompensated for their patent rights. Certain market conditions may enable a patentee to use its excessive market power to foreclose competition in the downstream market.<sup>156</sup> To combat this problem, the ECJ has used competition law to increase access to patents, e.g. by concluding that the refusal to license an IPR may constitute an abuse of a dominant position in *exceptional circumstances*.<sup>157</sup> In this scheme the rights holders will still be remunerated for the licensing of their IPRs. The compulsory nature of the licence does still, however, constitute an exception from the exclusivity paradigm. This exception is by no means unique. For instance, Article 30 TRIPS allows for Member States to institute limited exceptions to the patentee's exclusive rights, such as a requirement for the patentee to either work the patented subject-matter himself or license it to third parties. In situations where the invention is not worked to a sufficient extent, a non-voluntary licence may be granted to third parties, see section 4.1 for further discussion.<sup>158</sup> This illustrates that the development of intellectual property into liability rules is prevalent within patent law itself, and not merely as a consequence of competition law.

It is important that such compulsory licences are, in fact, only granted in *exceptional circumstances*. A tendency to force rights holders to grant a compulsory licence in general would significantly weaken intellectual property law, and could lead to many instances of the patentee being undercompensated. However, in the context of patents, liability rules can be seen as both a 'sanction' to control misuse of a patent and as an incentive to increase access to patented technology. Kur and Schovsbo criticise the rejection of liability rules as a regulatory model and argue that its importance may very well increase with the advent of new forms of mass uses of protected content and with the growing sophistication of technology.<sup>159</sup> Arguably, due to the intangible nature of intellectual property it would be unsuitable to use the same kind of legal protection as used for other forms of property. Ultimately, intellectual property law protects information, in one form or another. In order to ensure the dissemination of that information, which is of particular importance in regards to patents, there has to be a legal recourse for accessing them, providing that the rights holder is remunerated. The word 'property' is a term of convenience in regards to IPRs, rather than a

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<sup>156</sup> Kur & Schovsbo 2009 pp. 20-21.

<sup>157</sup> *Inter alia* Case 238/87, *AB Volvo v. Erik Veng* [1988] and Cases C-241/91 P and C-242/91 P, *RTE and ITP v Commission* [1995].

<sup>158</sup> WIPO Intellectual Property Handbook: *Policy, law and use*. 2<sup>nd</sup> edition Geneva 2004, p. 17. <http://www.wipo.int/about-ip/en/iprm/> (retrieved 2016-12-08).

<sup>159</sup> Kur & Schovsbo 2009 pp. 28 et seq.

precise description of their nature. It is interesting to note that in other languages the name does not have the same connotations, e.g. the German *Immaterialgüterrecht*. The exclusivity of an IPR can be seen as a ‘licence’ conferred on the rights holder by a public authority, seeing as the exclusivity is limited in scope and duration. It serves as a solution to certain market failures connected to the inherent difficulty in protecting information, such as the problem of free-riding. Since intellectual property is designed to solve specific market failures and create certain incentives, it is arguably inappropriate to allow the exclusivity paradigm to reign supreme in cases where these objectives are thwarted by the strength of IP protection. This could, for example, be the case when follow-on innovation is hindered by the rigidity of patent protection, see section 6.3.2.

### 6.3 Innovation

In contrast to what is stated in the Technology Transfer Guidelines, see above, antitrust enforcement has often been at odds with the concept of innovation. Arguably, this discord is a result of the enforcement of competition law being heavily reliant on neoclassical economic models, focusing on price and market power rather than taking innovation into account.<sup>160</sup> For instance, in *Huawei* the ECJ did not even mention innovation. Instead, on the basis of the presupposed dominance of the SEP owner, the court held that an IPR holder's exercise of his exclusive right may, in *exceptional circumstances*, involve abusive conduct for the purposes of Article 102, in accordance with settled case law. Without concluding that this may not be the case, it can be argued that much of the earlier case law is not suitable for application in regards to SEPs. *Magill*, for example, dealt with copyrighted material, and the concept of innovation is not as important a factor in copyright as it is in the analysis of the competitive effects of patents. Furthermore, the abusive conduct in *Magill* took the form of an arbitrary refusal to license the IPRs in question, which prevented the appearance of a new product and meant that the rights holders reserved the secondary market for themselves. In contrast, in *Huawei* the conduct of the dominant firm was not a direct refusal to license as such, rather it was an injunction against a party that was infringing the firm's patented subject-matter.

In the Horizontal Guidelines, it is stated that standardisation usually produces significant positive economic effects, e.g. by encouraging the development of new and improved products or markets and improved supply conditions, i.e. innovation.<sup>161</sup> Although

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<sup>160</sup> Pierce 2016 p. 138 et seq.

<sup>161</sup> Horizontal Guidelines para. 263.

these guidelines relate to the application of Article 101, the assumption that standardisation is pro-competitive should be taken into account in the application of Article 102 as well, when dealing with SEPs. In the very least, a general discussion regarding innovation and dynamic markets ought to be included in the ECJ's analysis of the competitive effects of an SEP owner's conduct.

### *6.3.1 The Application of Article 102*

In contrast to Article 101, the text of Article 102 does not contain an exception that negates the abusiveness of actions, by a dominant undertaking, if those actions improve the production or distribution of goods or promotes technical or economic progress, like the regulation in Article 101(3). As a complement to this rule, there are a number of Commission notices that elaborates on when an agreement should be considered pro- or anti-competitive. Despite of the generally pro-competitive effects of standard-setting, in specific circumstances it may give rise to anti-competitive effects by potentially restricting price competition and limiting or controlling production, markets, innovation or technical development.<sup>162</sup> As a consequence of the wording of this paragraph, the Commission should take innovation into account when analysing a standardisation agreement's effects on competition. This illustrates a discrepancy between the application of Articles 101 and 102. The traditional enforcement of Article 102, which the courts and the Commission have applied, contrasts with the Guidelines' focus on innovation. In order for Article 102 to not hinder the innovation positives of standardisation, a more in depth market assessment and a greater understanding of technology markets is required.<sup>163</sup> In such a dynamic market as the telecommunications sector it is not sufficient to merely analyse price and market power, and innovation and technical progress ought to be considered when deciding if a certain conduct is abusive for the purposes of Article 102.

### *6.3.2 Incentives to Innovate*

Patent protection can be seen as an *ex ante* incentive to innovate. In other words, undertakings may invest in the development of technology, sure in the belief that the resulting innovations and inventions may be patented, provided that they fulfil the criteria for patentability. Consequently, the patent system protects initial innovation. However, it is also crucial that

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<sup>162</sup> Horizontal Guidelines para. 264.

<sup>163</sup> Pierce 2016 p. 373.

there is sufficient protection, and thus incentive, for follow-on innovation. Although an expansion of IP protection could increase the incentives for initial innovation, it might raise the costs for follow-on innovation. This issue may arise in particular with incremental innovation, where a new or improved process or product builds on already existing patented technology. In this case, there is a need for the innovator to be able to license the patented technology on which it builds.<sup>164</sup> The existence of patent thickets in, for example, the ICT sector can present a challenge to incremental innovation. It has been questioned whether patent law is, in fact obstructing innovation in these circumstances.<sup>165</sup> In regards to SEPs, the standard-setting process may create the right conditions for this follow-on innovation to occur. The Guidelines determine, *inter alia*, that participation in standard-setting must be unrestricted and that access shall be provided to the standard on FRAND terms.<sup>166</sup> If these conditions are met, it will be easier for innovators to be granted licences for patented technology, and thus create incremental innovation. However, the uncertainty in regards to how FRAND terms should be defined may present a further obstacle for innovators wishing to license SEPs.

## 7. Analysis

### 7.1 Patent Thickets and Standardisation

As stated above, the patent thicket has been defined by Shapiro as “an overlapping set of patent rights requiring that those seeking to commercialise new technology obtain licences from multiple partners”.<sup>167</sup> This overlapping set of patent rights results in a situation where each party essentially controls one of several complementary inputs into a production process. One of the main concerns regarding patent thickets has been the risk of ‘royalty stacking’, which may arise when complementary goods are independently priced, which in turn results in a higher total price of the final product than if the patents were controlled by a single owner.<sup>168</sup> Arguably, the advent of standardisation agreements has resulted in a more open access to the plethora of patents in the ICT sector. As it is required by the Horizontal Guidelines that participation in the standard-setting must be unrestricted and that procedure

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<sup>164</sup> Käseberg 2012 p. 4.

<sup>165</sup> Kur & Dreier 2013 pp. 84-85.

<sup>166</sup> Horizontal Guidelines para. 280.

<sup>167</sup> Shapiro 2001 p. 119.

<sup>168</sup> Regibeau & Rockett 2011 p. 12.

for the adoption of the standard must be transparent,<sup>169</sup> a greater number of implementers and patent owners will potentially have the ability to influence the standard-setting process, as well as the subsequent adoption of standards. Furthermore, as long as competitors are free to adopt and influence the standard, a standardisation agreement may be legitimate even when its participants hold dominant positions on the relevant product markets.<sup>170</sup> It is important to note that standardisation agreements constitute an exception to Article 101. Since they are considered to usually produce significant positive economic effects,<sup>171</sup> they are not deemed to be anti-competitive within the meaning of Article 101(1). Standardisation agreements have the possibility of alleviating some of the concerns with patent thickets. As long as the standardised technology can be accessed by competitors, the potential hold-up power of SEP owners will be diminished. The obligation to license on FRAND terms also, hopefully, means that licensing fees will not be excessive. However, the uncertainty in regards to how FRAND terms should be defined remains an issue.

The current attitude towards SEPs, however, presents a problem. If SEPs are too encumbered by conditions imposed by the courts for the protection of competition, they will not be as attractive as the less encumbered non-essential patents. In a situation where the major actors in the ICT sector lose faith in the system of standardisation, or if they are not sufficiently compensated for their patents and, therefore, cannot regain the costs of R&D, the progress that has come about through standardisation will likely be undone. The alternative to the system of standardisation would be a market with heavily entrenched patent owners, where the level of access for competitors would decrease. According to Barnett, smaller, R&D intensive firms tend to support the expansion of patent rights, as they lack independent production and distribution capacities and are consequently more reliant on IP protection. Larger firms, with integrated production and distribution structures, can employ alternative combinations of business strategies and technological controls to achieve high barriers of entry, without the need for IP protection.<sup>172</sup> Even though the protection of competitors is not an objective of competition law in itself, R&D intensive firms ought to be sufficiently protected in order to promote innovation and technological progress.

The emergence of patent thickets represents a market failure. A joint effort, e.g. in the form of a standard, is perfectly acceptable in situations where it is drafted in such a way

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<sup>169</sup> Horizontal Guidelines para. 280.

<sup>170</sup> Lundqvist 2014 p. 184.

<sup>171</sup> Horizontal Guidelines para. 263.

<sup>172</sup> Barnett 2016 p. 5.

that it enables trade and competition by creating collaboration between all ‘essential’ patentees. Standardisation agreements may present a solution to a market failure, since the collaboration results in a market being created that ‘tips the scales’ in favour of the standardised technology.<sup>173</sup> As long as SSOs provide unrestricted participation and are transparent in their adoption procedure, standardisation agreements signify a beneficial and generally pro-competitive form of joint effort. A two-pronged solution that has been implemented to alleviate the problems connected with patent thickets is: (i) an increased leniency in the enforcement of competition law, in regards to collaboration in the form of e.g. standardisation, and (ii) a restriction of intellectual property to act as liability rules in certain specific circumstances,<sup>174</sup> see section 6.2.

### 7.2 *The Possibility of Self-Regulation*

In regards to SEPs, the ECJ and the Commission have taken somewhat of an interventionist approach. Although it is settled case law that the exercise of an exclusive right linked to an IPR might in *exceptional circumstances* involve abusive conduct under Article 102,<sup>175</sup> it is questionable if it is appropriate for competition authorities to intervene in this case. Arguably, it would be more beneficial to the market for competitors to collaborate and self-regulate in the framework of standardisation agreements. As stated earlier, standardisation agreements are generally considered to be pro-competitive, by e.g. promoting innovation and ensuring the interoperability and compatibility of products.<sup>176</sup> Furthermore, in the interest of ensuring effective access to the standard, patentees wishing to have their patents included in the standard are required to provide an irrevocable commitment to license their patents on FRAND terms.<sup>177</sup> In the absence of such an obligation effective access to patented technology could not be ensured, especially with the existence of a patent thicket. Therefore, the obligation to license on FRAND terms lowers barriers to entry for firms wishing to access the standard-compliant technology and products. Decreased barriers to entry may in turn ensure the emergence of incremental, follow-on innovation, see section 6.3. Patent rights mainly incentivises initial innovation. In the interest of ensuring the cumulateness of innovation in a specific sector, the ability to effectively access patented technology is crucial.<sup>178</sup> The

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<sup>173</sup> Lundqvist 2014 p. 401.

<sup>174</sup> Ibid p. 423.

<sup>175</sup> Case 238/87, *Volvo v. Veng* [1988] para. 9, C-241/91 P and C-242/91 P, *RTE and ITP v Commission* [1995] para. 50 and C-418/01, *IMS Health* [2004] para. 35.

<sup>176</sup> Horizontal Guidelines para. 263.

<sup>177</sup> Horizontal Guidelines para. 285.

<sup>178</sup> Käseberg 2012 p. 4.

irrevocable commitment of SEP owners to license on FRAND terms can ensure that SEPs are accessed by innovators.

In regards to the magnitude of licensing terms, SSOs have been disinclined to sanction any agreement on that matter, since that could likely be construed as price fixing.<sup>179</sup> Due to this risk of collusion it would be unsuitable for the SSOs to specifically define the size of a FRAND royalty fee. Considering that the ECJ and the EC are not pricing authorities, it would also be unsuitable for them, or any other competition authority, to precisely define the extent of such a licensing fee. The question of when licensing terms and fees are fair, reasonable and non-discriminatory should be decided on a case by case basis. The obligation to license on FRAND terms essentially assists in the transformation of intellectual property into liability rules, see section 6.2. However, due to the market power gained from having one's patent included in a standard, and due to the indispensability of the standards for implementers, it is justified, with reference to the interest of promoting an effective competition, that the exclusivity of an SEP is limited, in comparison to non-essential patents. However, in the interest of promoting competition, royalty fees should be decided by market forces. Moreover, in the high-tech sector R&D is very costly. Subsequently, patent owners should receive a sufficient 'kick-back' to regain the costs of their R&D, thus preserving the incentives to innovate.

### *7.3 Countervailing Bargaining Power*

In *Huawei*, the referring court held that an appropriate and fair balance had to be struck between all the legitimate interests of the parties concerned. Furthermore, the court argued that it had to be recognised that the parties had equivalent bargaining power.<sup>180</sup> To this end, the positions of the SEP owner and the infringer should not allow them to obtain excessively high or excessively low royalties respectively. Consequently, the court concluded that the notion of the infringer's 'willingness to negotiate' was an unsatisfactory criterion for abuse, and that it may create too much room for interpretation as well as providing the infringer with too wide a freedom of action.<sup>181</sup> The ECJ did not account for the equivalent bargaining power of the parties concerned. Instead, the court took a traditional approach, in line with settled case law since *Magill*. For instance, the court argues that the patent's SEP status results in its

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<sup>179</sup> Shapiro, Carl. Navigating the Patent Thicket: Cross Licenses, Patent Pools and Standard Setting. In Jaffe, Adam et al. (eds), *Innovation Policy and the Economy* (MIT Press 2001) p. 128.

<sup>180</sup> *Huawei* para. 37.

<sup>181</sup> *Huawei* para. 38.

proprietor being able to prevent products manufactured by competitors from appearing or remaining on the market, thereby reserving the product market for themselves.<sup>182</sup>

However, in the case at hand this seems to be an overestimation of the SEP owner's market power. In situations where the users of a standard hold their own SEPs, they may derive a fair amount of countervailing bargaining power from those patents. In such an instance, the licensing negotiations would not necessarily be skewed in the favour of the proprietor of the SEP. In certain circumstances, this may even offset the SEP owner's market position to such a degree as to deprive it of its dominance. Due to the large amount of SEPs, held by many different proprietors, one single proprietor should not be considered to possess the requisite market power to exclude all other competitors in the manufacturing of products. Moreover, as a consequence of the existence of an overlapping set of patent rights owned by multiple owners, it is not certain that an SEP owner has the power to behave to an appreciable extent independently of its competitors.<sup>183</sup> When an SEP owner is itself a manufacturer of standard-compliant products it is required to obtain licences for the SEPs of its competitors. Arguably, this means that the proprietor cannot to an appreciable act independently of its competitors, vis-à-vis its SEP licensing. The need for cross-licences greatly reduces the bargaining power of the proprietor, and results in an inability to obtain excessive royalty fees in this instant. Of course, bargaining power could be skewed in cases where SEPs are owned by non-practicing entities. However, neither *Huawei* nor the Commission decisions concerned NPEs. Therefore, the apprehensions regarding the practices of NPEs, vis-à-vis their patent portfolios, are not applicable in these cases.

Similarly, Motorola argued that they did not enjoy a dominant position vis-à-vis Apple, due to that firm's countervailing bargaining power. In support of this view, Apple is one of the world's largest companies, estimated to account for 70 % of all smartphone profits worldwide, and it holds a large patent portfolio of both SEPs and non-SEPs, making it an indispensable trading partner.<sup>184</sup> In such a situation, it seems unrealistic to assert that an SEP owner could effectively foreclose competition by excluding competitors, and reserving the market for itself. The narrow definition of the relevant product market that has been applied in EU case law fails to take into account the wider market power of the parties concerned in the relevant markets in the sector at large.

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<sup>182</sup> Huawei para. 52.

<sup>183</sup> See *United Brands* para. 65 and 66.

<sup>184</sup> Motorola para. 237 et seq.

#### 7.4 No-Challenge Clauses

A point of contention that was clarified by the ECJ in *Huawei* was the question of so-called no-challenge clauses. The court held that an alleged infringer cannot be criticised for either challenging the validity of the patents in question and/or the essential nature of those patents to the standard in which they are included, or for reserving the right to do so at a later point in time.<sup>185</sup> In some instances, German courts denied potential licensees the right to challenge the validity of the patent, and even required them to accept no-challenge clauses in the licensing agreements.<sup>186</sup> This requirement, coupled with the indispensability of SEPs to implementers operating on the product market, would make it impossible for implementers to challenge SEPs that are potentially invalid or non-essential.<sup>187</sup> If an SEP is either invalid or non-essential to the standard in which it is included it should not be afforded the same protection as SEP that fulfil those criteria. No-challenge clauses cannot be regarded as indispensable to the safe-guarding of the patent system. If there was an abundance of invalid patents, with which the proprietors could hold-up implementers and follow-on innovation under the auspices of patent law, the integrity of the patent system would be compromised. Such clauses may also, in certain circumstances infringe Article 101. In *Windsurfing International* the ECJ ruled that a no-challenge clause does not fall within the specific subject-matter of a patent, which cannot be interpreted as also affording protection against actions brought in order to challenge the patent's validity. Furthermore, the court held that the elimination of any obstacle to economic activity which may arise where a patent was granted in error is in the public interest. Therefore, the clause constituted an unlawful restriction on competition.<sup>188</sup> Keeping in mind the need to balance the interests of intellectual property and competition law, such clauses should be considered too much of a restriction on competition to be justified under patent law for the safe-guarding of the subject-matter of the patent.

## 8. Conclusion

Due to the indispensability of standardised technology to implementers in the ICT sector, it is reasonable for the courts and competition authorities to ensure that SEPs are, in fact, licensed

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<sup>185</sup> *Huawei* para. 69.

<sup>186</sup> Oberlandesgericht Karlsruhe, judgment of 27 Feb. 2012, Case 6 U 136/11, *Lizenzvertragsangebot*, para. 34; see also Landgericht Mannheim, judgment of 9 Dec. 2011, Case 7 O 122/11, *GPRS Zwangslizenz*, paras. 91 et seq.

<sup>187</sup> Körber 2016 p. 1117.

<sup>188</sup> Case C-193/83, *Windsurfing International Inc. v. Commission* [1986] paras. 90-93.

fairly. The proprietors of SEPs should not be allowed to use their potential hold-up power to foreclose competition in the downstream market. In the case of patent thickets there is a more acute risk of this occurring, as the overlapping set of patent rights requires an implementer to obtain licences from multiple patentees. Even though patent owners are often inclined to license their patents, some of them may have a strategic incentive to prevent follow-on innovation and its commercialisation.<sup>189</sup> This may in turn result in the ‘tragedy of the anticommons’, which means that too many people are able to exclude others, resulting in a high risk of underuse of resources.<sup>190</sup> In order to ensure incremental and follow-on innovation, there has to be a sufficient level of access to patented technology. However, Huawei’s conduct, in regards to its SEP, did not constitute a *refusal* to license. The point of contention between the parties concerned, which led to the breakdown in negotiations, was the terms of the licensing agreement, and more specifically how to define FRAND terms. It was not a question of whether or not a licence should be concluded. Therefore, it is not a clear-cut case of a refusal to license an IPR, and the subsequent prevention of new markets or products. Rather it is a disagreement regarding the interpretation of licensing terms, in the form of FRAND. In *Huawei* the ECJ sets up a procedural scheme that seeks to balance the interests of SEP owners, which are obliged to license on FRAND terms, and the interests of implementers of standard-compliant products. In effect, this creates a compulsory licensing scheme, and further transforms intellectual property law into liability rules.

Overall, it should be considered that the ECJ has implemented a fairly balanced approach, in regards to the interests of competition law and intellectual property. The court has adopted a middle-ground between the divergent approaches of the Commission and the German courts. However, it is disappointing that the court fails to take into account innovation and dynamic effects in the analysis of the relevant market, dominance and the abuse thereof. Furthermore, it is also unfortunate that the question of the relevant market and dominance was not referred to the court. The Commission’s narrow definition of the product market, followed by an easy finding of dominance coupled with a wide interpretation of ‘abuse’, displays a traditional approach in the enforcement of Article 102. It also illustrates that the Commission has played a notably interventionist role in the market with its application of competition law.<sup>191</sup> The question is if self-regulation, in the form of standardisation agreements, is better suited to tackle the problems connected with, for

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<sup>189</sup> Käseberg 2012 p. 13.

<sup>190</sup> Colangelo 2004 pp. 7 et seq.

<sup>191</sup> Jones & Sufrin 2014 p. 305.

example, patent thickets. Standardisation agreements are generally considered pro-competitive and accessibility to the standard is ensured by the commitment to license on FRAND terms. The specific magnitude of a FRAND royalty fee should be decided on a case-by-case basis. If SSOs were to conclude agreements regarding the size of licensing fees it could be construed as price fixing.<sup>192</sup> On the other hand, if the courts or competition authorities were to decide on the matter they would exceed their competence, and act as pricing authorities. Therefore, to ensure the stated EU objective of creating a highly competitive social market economy,<sup>193</sup> the magnitude of FRAND royalty fees should be decided by market forces.

In recent years, mainly two solutions have been implemented to alleviate the problems connected with patent thickets. Firstly, there has been an increased leniency in the enforcement of competition law, regarding collaboration through e.g. standardisation. Secondly, intellectual property has been restricted to act as liability rules in specific circumstances.<sup>194</sup> The Horizontal Guidelines illustrates how this leniency has been put into practice, and also exemplifies how an effective framework can be constructed to ensure competitive benefits through self-regulation. The cumulative transformation of intellectual property into liability rules is supported by the fact that it has become settled case law that the exercise of the exclusive rights linked to an IPR may in *exceptional circumstances* involve abusive conduct, within the meaning of Article 102.<sup>195</sup> The ECJ's judgement in *Huawei* presents a further step in this direction. Although it may be necessary for intellectual property to act as liability rules, one must consider the need to incentivise innovation and the cost of R&D. A compulsory licensing scheme may guarantee follow-on innovation, by ensuring that essential technology is accessible to implementers and innovators. However, if the balance is skewed too much in the favour of the licensee, there is a risk that patent owners will be undercompensated for their patented technology. Since R&D is very costly in the high-tech sector, patent owners should receive a sufficient 'kick-back', to incentivise innovation.

Therefore, in order to achieve a sufficient balance between the interests of competition law and intellectual property in this case, an effects-based analysis regarding innovation should be implemented. Since the sector in question differs greatly from 'traditional' markets, a more dynamic approach is required in the application of Article 102.

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<sup>192</sup> Shapiro 2001 p. 128.

<sup>193</sup> Article 3(3) TEU.

<sup>194</sup> Lundqvist 2014 p. 423.

<sup>195</sup> Case 238/87, *Volvo v. Veng* [1988] para. 9, C-241/91 P and C-242/91 P, *RTE and ITP v Commission* [1995] para. 50 and C-418/01, *IMS Health* [2004] para. 35.

Otherwise, the enforcement of Article 102 could hinder the pro-competitive benefits of standardisation. In such a situation, the aims of both intellectual property law and competition law would be thwarted.

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