PATENT ASSERTION ENTITIES AND EU COMPETITION LAW

Damien Geradin,
George Mason University School of Law

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Damien Geradin[(*)]

ABSTRACT

Patent Assertion Entities ("PAEs") are playing a growing role in the United States, but also in Europe. Their activities are controversial in that while they may be a source of efficiencies, they may also create anticompetitive harm. Given the growing trend of operating companies transferring patents to PAEs in order to increase their licensing revenues, the risks of anticompetitive harm created by PAE activities must be taken seriously. When analysing the impact of PAE activities on competition, a distinction must be drawn between "pure" PAEs, which acquire patents from a variety of sources and generate revenues by asserting them, and "hybrid" PAEs, which acquire patents from operating companies and maintain a relationship with these companies post-acquisition. While pure PAEs create risks of exploitation, hybrid PAEs create exclusionary concerns as such PAEs may be used by operating companies to harm their rivals on downstream product markets. These exclusionary concerns are particularly serious when the operating company retains a significant degree of control over the activities of the PAE following the transfer of the patents. As there is currently no EU competition case-law on the activities of PAEs, this paper attempts to show through hypotheticals that depending on the circumstances of each case, privateering may lead to exclusion.

Keywords: Patent assertion entities, non-practicing entities, hold up, royalty stacking, Cournot complements, exploitation, exclusion, licensing, competition law.

JEL codes: K21, K41, L24, L40.

(*) Founding partner, EDGE Legal, Brussels. Professor of Competition Law & Economics at Tilburg University; Professor of Law, George Mason University School of Law; and visiting Professor of Law, University College London. dgeradin@edgelegal.eu

I. Introduction

Patent assertion entities ("PAEs") are firms acquiring patent portfolios, which they monetize through licensing agreements with manufacturers.[1] PAEs play a growing role in patent litigation in the United States with, according to a study, over 60% of infringement lawsuits being filed by PAEs in 2013.[2] PAEs are particularly active in the information technology sector given its high patent intensity.[3]

PAEs are controversial. While some argue that PAEs stimulate innovation by assisting innovators, such as universities or research-intensive firms, which might not otherwise be able to monetize their inventions,[4] others consider that they deter competition and innovation by increasing the costs of manufacturers, ultimately representing a tax on consumers.[5] Concerns have also been expressed about the growing reliance of operating companies on PAEs to monetize their patents. While this practice, referred to as "privateering",[6] may be justified by efficiencies, it can also be used as a strategy to harm rivals by raising their costs.[7]

Given the criticisms expressed over PAEs, U.S. antitrust authorities have decided to pay closer attention to their activities. In March 2011, the Federal Trade Commission (FTC) issued a report examining PAEs, as well as the harm that can be generated by their activities.[8] In December 2012, the FTC and the U.S. Department of Justice ("DoJ") held a public workshop on PAEs to discuss the "evolution of economic and legal analyses of PAE behavior, including patent acquisitions and

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1 The FTC defines the term PAE as "firms whose business model primarily focuses on purchasing and asserting patents." See FTC, "The Evolving IP Marketplace", March 2011.

2 According to the data provided by Scott Morton and Shapiro, in 2013, 67% of all patent lawsuits were brought by non-practicing entities (NPEs) and PAEs accounted for 91% of the patent cases brought by NPEs. See Fiona Scott Morton and Carl Shapiro, "Strategic Patent Acquisitions", 79 (2014) *Antitrust Law Journal* 463, 465-66.

3 Id. at 468.

4 See, e.g., Clifton Parker, "Patent trolls serve valuable role in innovation, Stanford expert says", *Stanford News*, 23 February 2015, available at news.stanford.edu/news/2015/february/haber-patent-trolls-022315.html

5 Robert Harris, Patent Assertion Entities & Privateers: Economic Harms to Innovation & Competition", 79 (2014) *Antitrust Bulletin* 281.

6 This expression is based on the past reliance of kingdoms on sea captains who attacked enemy vessels with a "letter of marque" protecting them against the charge of piracy. These sea captains would then share the spoils of their attacks with their state sponsors. See John Golden, "Patent Privateers: Private Enforcement's Historical Survivors", 26 (2013) *Harvard Journal of Law & Technology* 546.

7 Mark Popofsky and Michael Laufert, "Antitrust Attacks on Patent Assertion Entities", 79 (2014) *Antitrust Law Journal* 445, 456.

8 See, FTC, The Evolving IP Marketplace, supra note 1.

licensing activity",[9] as well as the "potential efficiencies and harms to innovation and competition that this activity may generate".[10] Finally, in September 2013, the FTC announced its intention to conduct a study on PAE organization and activity to develop a better understanding of how PAEs may impact innovation and competition.[11]

An intense debate has also emerged among U.S. antitrust specialists as to the role antitrust law should play with respect to PAEs.[12] Some have, for instance, suggested that antitrust rules should be used to exterminate[13] or, at least, limit the adverse effects that PAE activities may have on competition, innovation and, ultimately, consumers.[14] Others disagree on the ground that the harmful activities of PAEs are not a competition problem, but a litigation problem arising from the uncertainty concerning the validity of the excessively large number of patents granted by the Patent and Trademark Office ("PTO").[15] In their view, this requires a reform of the PTO and the role of antitrust rules is not to make up for patent law deficiencies.[16]

The PAE phenomenon is more recent and less pronounced in the European Union and it has not yet received the same degree of attention as in the United States. However, it would be wrong to think that Europe is immune from PAE litigation. A recent empirical study shows that PAEs accounted for roughly 10% of the lawsuits filed in Germany (during 2000-08) and the United Kingdom (2000-13),[17] and there is every reason to believe that PAE activity has accelerated in recent years.[18] Given the anti-competitive effects this practice may have, some EU competition

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9 See Public Workshop: Patent Assertion Entity Activities, available at http://www.justice.gov/atr/events/public-workshop-patent-assertion-entity-activities

10 Id.

11 See FTC Seeks to Examine Patent Assertion Entities and Their Impact on Innovation, Competition, Press Release, 27 September 2013, available at https://www.ftc.gov/news-events/press-releases/2013/09/ftc-seeks-examine-patent-assertion-entities-their-impact

12 The Antitrust Law Journal devoted one of its issues to this debate (Volume 79, 2014).

13 Tim Wu, "How to Make War on Patent Trolls", *New Yorker*, 3 June 2013, available at www.newyorker.com/tech/elements/how-to-make-war-on-patent-trolls

14 See, e.g., Michael A. Carrier, "Patent Assertion Entities: Six Actions the Antitrust Agencies Can Take", (Winter 2013) *CPI Antitrust Chronicle* 1.

15 See Joshua D. Wright and Douglas H. Ginsburg, "Patent Assertion and Antitrust: A Competition Cure for a Litigation Disease", 79 (2014) *Antitrust law Journal* 501; John "Jay" Jurata and Amisha Patel, "Taming the Trolls: Why Antitrust is not a Viable Solution for Stopping Patent Assertion Entities", 21 (2014) *George Mason University Law Review* 1251.

16 See Wright and Ginsburg, supra note 15, at 525.

17 Brian J. Love et al., "Patent Assertion Entities in Europe", forthcoming in Daniel Sokol (ed.), Patent Assertion Entities and Competition Policy, Cambridge University Press, 2016, currently available at papers.ssrn.com/sol3/papers.cfm?abstract_id=2689350

18 PAEs, such as IPCom, Unwired Planet, Vringo, and Saint Lawrence have, for instance, filed a series of lawsuits against manufacturers of mobile devices for alleged breaches of 2G, 3G and 4G SEPs.

law experts have also called for antitrust intervention to put an end to some of the practices in which PAEs are involved.[19]

Against this background, this paper is divided in five parts. Part II describes the operation and activities of PAEs. It seeks to clarify what should be understood by the terms practicing-entities ("PEs"), non-practicing-entities ("NPEs"), PAEs and "patent trolls". Part II also discusses the "positive" and the "negative" cases for PAEs. Part III discusses the competition law provisions that can be used to place limits on the activities of PAEs. Part IV analyses the activities of PAEs that may have the object or effect of restricting competition, as well as the ways in which competition rules can be used to put an end to such practices. This analysis distinguishes between the competition law issues that may be created by "pure" PAEs and those that may be created by "hybrid" PAEs.[20] Part V concludes that while pure PAEs create risks of exploitation, hybrid PAEs create exclusionary concerns, as they can be used by operating companies to harm their rivals on downstream product markets. These exclusionary concerns are particularly serious when the operating company retains a significant degree of control over the activities of the PAE after the transfer of the patents has been completed.

II. What is a PAE and PAEs' activities "desirable" or not?

Intellectual property ("IP") lawyers refer to a series of acronyms and labels to describe the various types of companies active in the IP marketplace. Section A distinguishes practising entities ("PEs") from non-practising entities ("NPEs"), NPEs from PAEs, and PAEs from patent trolls. As PAEs can at the same time support and harm innovation, Section B discussed the positive and negative cases for PAEs.

A. PEs, NPEs, PAEs and patent trolls

Intellectual property rights ("IPRs") are held by different categories of companies. First, in the high-technology sector, manufacturers often hold portfolios of patents, the teachings of which they use in their products.[21] This is why they are often referred as practising entities ("PEs"). Second, a variety of entities develop patent portfolios either by patenting their inventions (e.g., university research centres, labs, etc.) or by acquiring them from other entities against payments or revenue-

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[19] See, e.g., Maurits Dolmans, "Privateers and trolls join the global patent wars; can competition authorities disarm them?", 37 (2014) *Computerrecht* 80.

[20] See infra text accompanying notes 25-26.

[21] Large high-technology companies like Apple, Google, IBM, Microsoft or Samsung hold thousands of patents covering a wide variety of technologies, usually related to the products or services they offer to their clients or users.

sharing agreements. These entities are referred to as NPEs since they do not practice their patents.[22] Instead, they derive revenues from licensing them. PAEs are a subcategory of NPEs in that, unlike university research centres or labs, they do not develop technologies. However, they may team up with research centres in order to help them to monetise their patents. PAEs owe their name to the fact they generate revenues by asserting their patents or those of third parties. PAEs typically initiate licensing negotiations with manufacturers they believe have infringed their patents and when these negotiations fail they file a patent infringement lawsuit against them. PAEs are sometimes referred to as "trolls".[23] The term troll is used pejoratively to denounce PAEs that engage in particularly egregious activities, such as, for instance, sending letters of demand to thousands of users of products that would allegedly infringed their patents (often of highly dubious quality).[24] Since some PAEs engage in desirable activities, such as assisting inventors to obtain a return on their R&D, trolls can be seen as a subcategory of PAEs.

PAEs are not a unitary phenomenon as different categories of PAEs can be distinguished. First, Scott Morton and Shapiro make a distinction between "pure" PAEs and "hybrid" PAEs.[25] Pure PAEs acquire patents from a variety of sources and generate revenues by asserting them. Hybrid PAEs acquire patents from operating companies and maintain a relationship with these companies post-acquisition. For instance, the operating company transferring its patents to the PAE may be compensated through a revenue-sharing agreement and, in some cases, the transaction is structured in such a way that the PAE will (primarily) target the rivals of the operating company on a downstream product market. As noted above, this practice is generally referred to as "privateering".[26]

Second, not all PAEs have the same strategy. While some PAEs just hold a few patents, which they will use to "strike it big in court" ("lottery tickets" trolls),[27] others ("bottom feeders" trolls) send thousands of letters of demand to small businesses using products allegedly infringing their patents in the hope that they will settle the amounts requested rather than face the costs and uncertainty associated with a patent infringement lawsuit.[28] Another category of PAEs

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22 On the features and activities of NPEs, see David L. Schwartz and Jay P. Kesan, "Analyzing the Role of Non-Practicing Entities in the Patent System", 99 (2014) *Cornell Law Review* 425.

23 Colleen V. Chien, "Of Trolls, Davids, Goliaths, and Kings: Narratives and Evidence in the Litigation of High-Tech Patents", 87 (2009) *North Carolina Law Review* 1571.

24 Julie Samuels, "A Closer Look at Patent Troll Demand Letters: A Dangerous Problem that Must Be Fixed", Electronic Frontier Foundation, 5 November 2013, available at https://www.eff.org/deeplinks/2013/11/closer-look-patent-troll-demand-letters-dangerous-problem-must-be-fixed

25 See Scott Morton and Shapiro, supra note 3, at 465.

26 See supra note 6.

27 Mark A. Lemley and A. Douglas Melamed, "Missing the Forest for the Trees", 113 (2014) *Columbia Law Review* 2117, 2126.

28 Id.

("aggregators") accumulate large quantities of patents from a variety of sources (operating companies, NPEs, etc.).[29] For instance, Intellectual Ventures claims it has acquired more than 70,000 patents and patent applications since its creation.[30] These aggregators license these patents to manufacturers against the payment of royalties and sue them if they are unwilling to take a license at the terms they seek to obtain. While most aggregators have an "offensive" business model, some aggregators are also used by operating companies for "defensive" purposes. For instance, RPX offers a "defensive patent acquisition service", which "reduces patent risk for clients by removing the threat posed by potentially problematic patents."[31]

B. The cases "for" and "against" PAEs

As noted above, commentators are divided over whether PAEs are desirable or not. *Prima facie*, there is no reason to believe that the PAE model is wrong in itself. Patents are tradeable rights and there is nothing in patent law suggesting that patents can only be asserted by the entities obtaining them from the patent office. Moreover, entities have different skills.[32] For instance, research centres may be good at innovating and patenting valuable technology, but may not have the resources and expertise to monetize their inventions. A specialist entity may thus help innovators to obtain a return from their R&D activities by negotiating licenses with companies interested in exploiting their technology. In case of infringement, PAEs may also assist innovators in enforcing their patents and obtain compensation for their investments. From that standpoint, PAEs may improve the functioning of the market for ideas, generate return for innovators, and stimulate innovation.

However, some claim that there is scarce evidence that PAEs enhance rewards for innovators.[33] Only a small fraction of the sums PAEs collect would be shared with the original patentees. Moreover, commentators have expressed concerns about PAEs' negotiation and litigation tactics. Scott Morton and Shapiro, for instance, allege that PAEs may seek to obtain "unreasonable" royalties by using "outsized threats",[34] such as seeking injunctions and exclusion orders, suing customers in order to pressure manufacturers or filing lawsuits at a moment where the target is particularly vulnerable (e.g., just before an IPO).[35] Finally, allegations have been made that PAEs

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29 Id.

30 See Intellectual Ventures, Our Patent Portfolio, available at www.intellectualventures.com/inventions-patents/patent-portfolio/

31 See https://www.rpxcorp.com/rpx-services/rpx-defensive-patent-acquisitions/

32 Damien Geradin et al., "Elves or Trolls? The role of nonpracticing patent owners in the innovation economy", 21 (2012) *Industrial and Corporate Change* 73.

33 See Lemley and Melamed, supra note 27, at 2125 and 2151 and the studies cited.

34 In this paper, I understand unreasonable royalties that exceed the value of the patents.

35 See Scott Morton and Shapiro, supra note 27, at 474.

may be used by operating companies to target their rivals and raise their costs so as to gain a competitive advantage on downstream product markets.[36]

In light of these observations, it is clear that one cannot give a general answer as to whether PAEs are desirable or not. It entirely depends on their business model and the way they implement it in practice.

III. <u>Use of EU Competition Law to Place Limits on PAE activities</u>

By obtaining a patent, an entity is allowed to prevent the unauthorised use of its intellectual property, as well as to exploit it by, for instance, licensing it to third parties. The fact that patent law grants them an exclusive right of exploitation does not, however, immunize patent holders from the application of competition law. As pointed out by Advocate General Wathelet in its opinion in *Huawei v. ZTE*, "the right to intellectual property is not an absolute right."[37] The CJEU also held that there are situations "in which the free exercise of an exclusive right, being a right which rewards investment or innovation, may be limited in the interest of undistorted competition on the common market."[38] In several instances, the European Commission has thus intervened to bring anti-competitive exercises of intellectual property rights to an end.[39]

Three branches of EU competition law can potentially be used to place limits on anti-competitive activities that would be carried out by patent holders.

First, subject to the exception contained in Article 101(3) TFEU, Article 101(1) TFEU prohibits all agreements and concerted practices between undertakings and decisions by associations of undertakings which may affect trade between Member States and which have as their object or effect the prevention, restriction or distortion of competition. This provision can thus be used to challenge IP-related agreements that would have the object or effect of restricting competition. In order to offer some guidance to parties concluding licensing agreements, the Commission has adopted a Regulation,[40] as well as Guidelines on the application of Article 101 TFEU to technology

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36 See Popofsky and Laufert, supra note 7, at 445.

37 Opinion of Mr Advocate General Wathelet delivered on 20 November 2014, Case C-170/13, *Huawei Technologies Co. Ltd v ZTE Corp. and ZTE Deutschland GmbH*, 2015 E.C.R. I-0000.

38 Case T-321/05, *AstraZeneca v. Commission*, (2010) E.C.R. II-02805, at § 26.

39 See, e.g., Joined Cases C-241/91 P and C-242/91 P, *RTE and ITP v Commission* ('Magill') [1995] ECR I-743; Case C-418/01, *IMS Health GmbH & Co. OHG v NDC Health GmbH & Co. KG*., 2004 E.C.R. I-05039; Case T-201/04, *Microsoft Corp. v Commission*, 2007 E.C.R. II-03601; Case C-170/13, *Huawei v. ZTE*, supra note 37.

40 Commission Regulation (EU) No 316/2014 of 21 March 2014 on the application of Article 101(3) of the Treaty on the Functioning of the European Union to categories of technology transfer agreements, 0.J. 2014, L 93/17.

transfer agreements (respectively, the "TTBER" and the "TTBER Guidelines").[41] The Commission has also provided guidance on standardization agreements in its Guidelines on the applicability of Article 101 TFEU to horizontal co-operation agreements.[42]

Second, Article 102 TFEU prohibits an undertaking holding a dominant position to abuse from it. There is an abundant case-law of the EU courts on the application of Article 102 TFEU to abusive exercises of intellectual property rights.[43] While intellectual property rights do not necessarily confer a dominant position to its holder,[44] there are circumstances where it does and in such cases Article 102 TFEU has been regularly used to place some limits on the exercise of such rights by their holders.[45] Article 102 TFEU condemns a variety of abuses of an exploitative or exclusionary nature, as well as price discrimination.[46]

It is important to note that both Articles 101 and 102 TFEU have direct effect, which means that they can be invoked before national courts.[47] As will be seen below, these provisions are regularly used as a means of defence (sometimes referred to as "EURO defence")[48] by defendants in patent infringement cases.

Finally, pursuant to the EU Merger Control Regulation ("EUMCR"), the Commission has the ability to prohibit concentrations of a Community dimension that would "significantly impede effective competition in the common market or in a substantial part of it, in particular as a result of the creation or strengthening of a dominant position."[49] The question is, of course, whether the sale of a patent portfolio could give rise to a concentration within the meaning of the EUMCR. Such a sale can be considered to be a concentration if the portfolio in question constitutes a business with a market turnover.[50] Thus, the acquisition by a PAE of a patent portfolio could in

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41 O.J. 2014, C 89/3.

42 O.J. C 11/1.

43 See supra note 39.

44 For a discussion, see Jonathan D.C. Turner, *Intellectual Property and EU Competition Law*, 2nd Ed., Oxford University Press, at Section 3.02.

45 See supra note 39.

46 See Damien Geradin et al., *EU Competition Law & Economics*, Oxford University Press, 2012, Chapter 4.

47 Articles 5 and 6 of Council Regulation (EC) No 1/2003 of 16 December 2002 on the implementation of the rules on competition laid down in Articles 81 and 82 of the Treaty, 2003 O.J., L 1/1.

48 Ariel Ezrachi, *EU Competition Law: An Analytical Guide to the Leading Cases*, Hart Publishing, 4th Ed. 2014, at 542.

49 Article 2.2 of Council Regulation (EC) No 139/2004 of 20 January 2004 on the control of concentrations between undertakings, O.J. 2004, L 24/1.

50 OECD, Definition of Transaction for the Purpose of Merger Control Review, 2013 available at www.oecd.org/daf/competition/Merger-control-review-2013.pdf, at 79.

theory fall under the scope of the EUMCR and be prohibited or subject to remedies if it created the risk of significantly impeding competition in the common market.

Transactions involving PAEs are, however, unlikely to fall under the EUMCR because of the turnover thresholds required for a concentration to have a "Community dimension".[51] While PAEs have become active litigants before European courts, their turnover remains inferior to the EU merger control thresholds, and there is no precedent where a patent transaction involving a PAE has been notified to the Commission.[52] It is, however, important to note that patent transactions that do not fall within the scope of the EUMCR may nevertheless fall under the scope of national merger control regulations. They can also be examined under Article 101 TFEU as will be seen below.

When discussing the limits than can be placed by EU competition law on the exercise of patent rights, it is important to draw a distinction between standard-essential patents ("SEPs) and non-standard-essential patents ("non-SEPs").[53] Most of the recent competition cases involving intellectual property rights concern SEPs.[54]

A standard can be defined as a set of technical specifications which seeks to provide a common design for a product or process.[55] By allowing complementary or component products from different manufacturers to be combined or used together, standards increase consumer choice and convenience, and reduce costs. Standards are generally created by voluntary organizations (generally referred to as standard-setting organizations or SSOs) composed of participants from a given industry (electronic components, communications, etc.).[56] They meet to discuss, analyze,

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[51] See Article 1.3 of Regulation 139/2004, supra note 49.

[52] The potential impact of intellectual property on competition was, however, reviewed by the Commission in some recent merger decisions. Case No COMP/M.7047, Microsoft Nokia, 4 December 2013, C(2013)8873; Case No COMP/M.6381 - Google / Motorola Mobility, 13 February 2012, C(2012) 1068.

[53] For a discussion of the notion of standard-essential patent, see Damien Geradin, "The European Commission Policy towards the Licensing of Standard-Essential Patents: Where Do we Stand?", 9 (2013) *Journal of Competition Law & Economics* 1125.

[54] Case AT.39985, Motorola - Enforcement of Standard Essential Patents, 29 April 2014, C(2014) 2892 final; Case AT.39939, Samsung - Enforcement of UMTS Standard Essential Patents, 29 April 2014, C(2014) 2891 final.

[55] See Herbert Hovenkamp, Mark D. Janis & Mark Lemley, *IP and Antitrust: An Analysis of Antitrust Principles Applied to Intellectual Property Law*, (2003-04 Supplement) at 35.1.

[56] For instance, the European Telecommunications Standards Institute (ETSI), headquartered in Sophia Antipolis, France, was formed in 1988 by the European Conference of Postal and Telecommunications Administrations ("CEPT") and is officially recognized by the European Commission as the organization responsible for standardization of information and communication technologies within Europe. Its mission is to "develop globally applicable deliverables meeting the needs of the Information and Communications Technologies ("ICT") community." See, generally, Mark Lemley, "Intellectual Property Rights and Standard-Setting Organizations", 90 (2002) *California Law Review*, 1889.

refine, and ultimately adopt mutually acceptable standards. SSOs have thus gained importance over the years in technology-driven sectors.

Standards may, however, be encumbered by patents when the technologies they implement are proprietary. This is the case in the IT industry, for instance, where a given standard may rely on technologies protected by a very large number of patents, sometimes in the hundreds or even thousands.[57] This means that manufacturers are not able to implement a standard unless they obtain a license from the holders of patents that are essential to the standard in question. These patent holders have a right to obtain compensation, which can for instance take the form of an upfront cash payment, royalties, etc.

Most formal SSOs have IPR policies which generally encourage patent owners involved in standardization to disclose any patent(s) that they consider essential upfront, i.e., prior to the standard's adoption. Once disclosure is made, or contemporaneously with disclosure, patent holders are typically asked to provide an assurance or commitment that, should their patent(s) be essential for a standard, they will license them on fair, reasonable and non-discriminatory ("FRAND") terms to members of the SSO and outsiders.[58] The IPR policies of most SSOs do not oblige owners of essential IPR to grant irrevocable licences thereto on FRAND terms. But if the owner of SEPs seeks to have its technology included in a standard, there is an incentive but no obligation to provide the SSO with the contemplated assurance that it will license on FRAND terms.

Licensing negotiations between SEP holders and potential licensees are conducted outside SSOs. Parties to such negotiations, however, regularly disagree over what FRAND terms mean with the standard implementers being unwilling to pay the financial compensation the SEP holders demand. From a competition law standpoint, the two main issues that have arisen are whether the seeking by an SEP holder of financial terms that are not FRAND can be considered as excessive pricing under Article 102 TFEU, as well as the circumstances in which SEP holders can seek court injunctions without committing an abuse of dominance under Article 102 TFEU. These issues will be discussed below.

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57 This is, for instance, the case of the WCDMA (3G) mobile standard. See Rudi Bekkers et al., Essential patents in industry standards: The case of UMTS, available at http://www2.druid.dk/conferences/viewpaper.php?id=5587&cf=32

58 For a discussion of the FRAND commitment, see Damien Geradin, "Standardization and Technological Innovation: Some Reflections on Ex-ante Licensing, FRAND, and the Proper Means to Reward Innovators", 29 (2006) *World Competition* 511.

IV. Addressing PAE-related issues with competition law

This part analyses the extent to which Articles 101 and 102 TFEU can address the problems that may be created by PAE activities. It is important to note that competition rules do not apply differently depending on the nature of the undertaking(s) at stake. Thus, there is no reason why PAEs should be subject to a harsher treatment than practising entities. PAEs may, of course, raise issues that are different from those created by practising entities and to the extent that these issues are a source of competition harm, they require remedies designed to address that harm.

Before analysing the extent to which competition rules can "address" the "problems" created by PAEs it is important to identify the criticisms that have been made against their activities. First, some of the concerns that have been expressed regarding PAEs are that these entities are less constrained than operating companies in monetizing their patents and are thus more likely to engage in aggressive negotiation and litigation tactics. This is because PAEs, unlike operating companies, are not exposed to countersuits since they have no products to protect. The PAE business model therefore creates "asymmetrical risks". PAEs would also threaten "patent peace". When operating companies use their patent portfolios for détente or to obtain cross-licenses, PAEs acquiring these portfolios will end that approach and instead charge royalties for their technology.[59]

Second, it is argued that PAEs do not face the same "reputational" constraints faced by major operating companies.[60] In other words, while some well-known operating companies may not engage in certain litigation tactics because of the fear this may affect their reputation and their long-term ability to collaborate with other operating companies, PAEs do not face such constraints. To the contrary, being perceived as ruthless may incentivize patent holders to use them to monetize their patents and may also convince their litigation targets that, even if the patents at stake are weak, it is better to settle rather than face litigation.[61] As far as such tactics are concerned, we have seen that Scott Morton and Shapiro argue that PAEs may use "outsized threats" to extract unreasonable royalties.[62] It is also alleged that they may renege on commitments, such as FRAND commitments, that were made by the original patent holder.[63]

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59 Scott Morton and Shapiro, supra note 3, at 487.

60 Mark S. Popofsky and Michael D. Laufert, "Patent Assertion Entities and Antitrust: Operating Company Patent Transfers", *The Antitrust Source*, April 2013, 1, 4.

61 An analogy can be drawn with predatory pricing, a strategy in which dominant firms may engage to deter entry. See Paul Milgrom and John Roberts, "Predation, Reputation, and Entry Deterrence", 27 (182) *Journal of Economic Theory* 280.

62 Scott Morton and Shapiro, supra note 3, at 470.

63 Id. at 475.

Finally, it is said that PAEs (hybrid PAEs) may be used by operating companies to engage in privateering, hence creating harm to rivals by raising their costs.[64]

In what follows, I operate a distinction between the potential competition issues raised by "pure" PAEs and those raised by "hybrid" PAEs. As will be seen, "privateering" activities generate particularly challenging questions.

A. Pure PAEs and competition law

Pure PAEs acquire patent portfolios of SEPs and non-SEPs from a variety of sources: research institutions, other PAEs or operating companies. Unlike "hybrid" PAEs, they do not maintain any link with operating companies after they have acquired the patents. There is therefore little or no risk that their assertion strategy will be guided directly or indirectly by "exclusionary" motives. But there is of course a risk that they may engage in "exploitative" behaviour in breach of Article 102 TFEU.[65] Some of their licensing agreements may also raise issues under Article 101 TFEU when they contain provisions that restrict competition.

1. Issues under Article 101 TFEU

There is no reason to believe that the licensing agreements that are concluded by pure PAEs are likely to be more restrictive than those concluded by operating companies. To the contrary, because PAEs do not compete with their licensees, which are operating companies, their agreements are less likely to contain certain categories of restriction of competition. Looking at the list of hardcore restrictions contained in the TTBER, it seems, for instance, unlikely that a pure PAE would restrict the ability of its licensees to determine its prices when selling products to third parties, limit output, allocate markets or customers, etc.[66] This does not mean that licences concluded by pure PAEs will always be free of restrictions to competition, but in that case one needs to check whether they can be block exempted under the TTBER and, if not, whether they can nevertheless be justified under Article 101(3) TFEU.[67]

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[64] Popofsky and Laudert, supra note 7, at 455. On the notion of "raising rivals' costs", see Thomas G. Krattenmaker and Steven C. Salop, "Anticompetitive Exclusion: Raising Rivals' Costs to Achieve Power over Price", 96 (1986) *Yale Law Journal* 209.

[65] See Geradin et al., supra note 46, at pp. 269 et seq.

[66] Commission Regulation No 316/2014, supra note 40, Article 4.

[67] See Guidelines on the application of Article 101 of the Treaty to technology transfer agreements, supra note 41.

If a pure PAE acts as patent pool,[68] the principles contained in the TTBER Guidelines apply.[69] While patent pools can produce pro-competitive effects, such as reducing transaction costs and create a one-stop licensing of the technologies contained in the pool, they may also restrict competition. This is, for instance, the case when the pool comprises substitute technologies as this will reduce inter-technology competition and thus increase royalties.[70] If by contrast the pool only comprises essential technologies, it will decrease royalties by reducing "double marginalization".[71] The TTBER Guidelines provide for a safe harbour whereby pools fall outside the scope of Article 101(1) TFEU if they meet certain conditions.[72] Pools that do not fulfil these conditions will be examined under Article 101(3) TFEU.[73]

2. Issues under Article 102 TFEU

Because unlike practising entities PAEs are not exposed to countersuits, it is alleged that they may use "outsized threats" to charge unreasonable royalties to manufacturers for the use of their patents.[74] It is important to start the analysis by a few observations.

First, it would be wrong to think that only PAEs assert their patents against operating companies. In fact, as the smartphone patent war amply illustrates,[75] many infringement lawsuits are initiated by operating companies against other operating companies,[76] and operating companies have also used "outsized threats", such as injunctions, to obtain what some perceived as "unreasonable" royalties.[77]

Second, whether a royalty is "reasonable" or not is by no means a trivial question. In the case of non-essential patents, there is a priori no reason why patent holders should be restricted in the royalties they can charge from prospective licensees. As the holder of a non-essential patent can decide not to license it to any rival (it has an exclusive right), it should be allowed to charge

[68] The Commission Guidelines define patent pools as "arrangements whereby two or more parties assemble a package of technology which is licensed not only to contributors to the pool but also to third parties." See § 244.

[69] Id. at § 248 et seq.

[70] Id. at § 253.

[71] Id.

[72] Id. at § 261.

[73] Id. at § 262.

[74] See Scott Morton and Shapiro, supra note 3, at 470 et seq.

[75] Thomas H. Chia, "Fighting the Smartphone Patent War with RAND-Encumbered Patents", 27 (2012) *Berkeley Technology Law Journal* 209.

[76] See Lemley and Melamed, supra note 27, at 2129 et seq.

[77] Id.

whatever price it deems suitable. In fact, a refusal to licence is no different than a licence offered at an infinite price. In the presence of alternative technologies, the patent holder's royalties will be constrained by competition. In the absence of alternative technologies, competitors will have to design around, although they could theoretically claim that what they consider rightly or wrongly to be unreasonable royalties breach Article 102(a) TFEU.[78] The reasonability of royalties is a more central issue when the patents are essential and encumbered by a FRAND commitment since reasonability is at the core of that commitment. When negotiations fail, a variety of methods can be used to determine whether proposed licensed terms are FRAND.[79]

Third, Article 102 TFEU only applies to undertakings which have a dominant position. Thus, every Article 102 TFEU analysis must start with a definition of the relevant market(s), as well as the assessment of whether the PAE in question is dominant on this/these market(s). In this respect, although a patent grants an exclusive right to its holder, it does not necessarily mean that it confers dominance, as the technology protected by the patent may face competition.[80] In the case of a SEP, there is a stronger likelihood that it confers a dominant position to its holder as it is essential to a standard and there is by definition no alternative to an essential patent, but nevertheless dominance should be established in every instance.[81]

I examine hereafter two ways in which PAEs could seek to obtain "unreasonable royalties". First, PAEs could decide to ignore commitments (e.g., FRAND commitments) that were made by the original owner of the patents. Second, PAEs could use "outsized threats" to seek to obtain "unreasonable" royalties. As we have seen, both operating companies and PAEs make outsized threats. However, because PAEs are not exposed to countersuits and do not face the same reputational constraints as operating companies, it is likely that they will more aggressively assert their patents in order to maximize their royalty revenues.

2.1 Refusal to comply with commitments made by the original owner of the patents

A first strategy that could be used by a PAE to seek unreasonable royalties is to ignore commitments that would have been made by the original owner of the patents. For instance, in the case of SEPs, PAEs could claim that they are not bound by the FRAND commitment that would have been made by the original owner to an SSO. Alternatively, PAEs could declare that they are

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78 See Geradin et al., supra note 46, at 269 et seq.

79 See, for instance, the methods developed by US federal courts in the Motorola and Innovatio LLL SEP cases. *See* Microsoft Corp. v. Motorola, Inc., No. 10-cv-1823 (W.D. Wash. 2013), *available at* http://law.justia.com/cases/federal/appellate-courts/ca9/12-35352/14/; In re Innovatio IP Ventures, LLC Patent Litigation, No. 11 C 9308 (N.D. Ill. 2013), *available at* http://essentialpatentblog.com/2013/10/public-version-of-judge-holdermans-rand-determination-in-innovatio-wifi-sep-litigation/

80 See Turner, supra note 44, at 126.

81 Case AT.39985, Motorola - Enforcement of Standard Essential Patents, supra note 54, at §§ 223 et seq.

not bound by a commitment that the original SEP owner would have made not charge royalties over a certain amount.

a. Refusal to honour a FRAND commitment

As we have seen above, a firm that during the standardization process discloses that it holds one or several patents that may be essential to one or several of the technical proposals discussed in the SSO is typically asked to provide a commitment that should its patents proved to be essential it would grant licenses to the standard implementers at FRAND terms.[82] As FRAND constrains the licensing terms that may be sought by SEP holders, a PAE that acquired SEPs from the original owner could claim that it is not bound by such a commitment. Such an approach would, however, be bound to fail.[83]

First, in the *IPCom* case,[84] the Commission made clear that the firm to which SEPs are transferred are bound by the FRAND commitment made by the original owner. In that case, IPCom had acquired the GSM and UMTS patent portfolio developed by Bosch, a company which had made a FRAND commitment to ETSI. IPCom had, however, considered that it was not bound by that commitment. Following the intervention of the Commission, IPCom eventually changed its position and publicly declared that it would take over the FRAND commitment made by Bosch.[85] The Commission declared in a press release that the "transfer of FRAND commitments after the sale of standard-essential patents is important from a competition law perspective."[86] Referring to its Guidelines on horizontal cooperation agreements, the Commission added that the pro-competitive economic effects of standard setting could be eliminated if, as a result of a transfer of patents essential to a standard, the FRAND commitment were no longer to apply.[87] The FTC reached a similar outcome in its *N-DATA* consent order.[88]

Second, a number of SSOs have plugged the possible "FRAND gap" that could occur in a transfer of SEPs by indicating in their IPR policies that FRAND commitments should bind the holders of the patents that have been transferred. For instance, Article 6.1 bis of ETSI's IPR policy provides

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82 See supra text accompanying note 58.

83 See Maurits Dolmans and Daniel Ilan, "European Antitrust and Patent Acquisitions: Trolls in the Patent Thickets", (August 2012) *Competition Law International* 7, 12-13.

84 See Antitrust: Commission welcomes IPCom's public FRAND declaration, 12 December 2009; MEMO/09/549, available at http://europa.eu/rapid/press-release_MEMO-09-549_en.htm?locale=en

85 Id.

86 Id.

87 Id.

88 See Commission Approves Final Consent Order in Matter of Negotiated Data Solutions, LLC, 23 September 2008, available at https://www.ftc.gov/news-events/press-releases/2008/09/commission-approves-final-consent-order-matter-negotiated-data

that: "FRAND licensing undertakings made pursuant to Clause 6 shall be interpreted as encumbrances that bind all successors-in-interest."[89] Besides the fact that this solution is required under EU competition law, it makes policy sense as in the absence of such a requirement, it would be easy for a SEP holder to evade its FRAND commitment by transferring its patents to other entities.

An intriguing issue is whether an SEP holder is able to transfer "its" FRAND commitment to the acquirer of its patents. Although this question sounds theoretical in nature, it has practical implications. Let us, for instance, assume that operating company A has a portfolio of 5,000 SEPs, which it transfers to a PAE named X. Prior to that transfer, A licensed its SEPs to manufacturers B, C, and D for an "effective" royalty rate of 1%. The "effective" royalty rate, which is the rate effectively paid the licensees "every else being equal",[90] was set at 1% in all cases in order to comply with the principle of non-discrimination, which is at the core of the FRAND commitment. Following the acquisition of A's patents, X decides to increase the rate to 1.5% because it considers that the 1% royalty rate charged by A did not reflect the full value of the patents. The problem for E, which competes with B, C and D, and which needs to acquire a licence from X is that it will pay a higher rate than its competitors, hence putting him at a competitive disadvantage. In defence, X could claim that it is bound by a FRAND commitment, but not by "the" FRAND commitment that was observed by A. But in an industry were the margin are thin and where every cent counts (e.g., semi-conductors, low-end smartphones), this could hurt E.

There is no obvious solution to this problem as SEPs may change hands several times and it would be difficult in practice to hold the current owner of the patents to the effective rate charged by the original patent owners.[91] Yet, it does not mean that the effective royalty rate charged by the original patent owner should be completely ignored as it may be a useful point of reference to assess whether a royalty rate proposed is FRAND. In the hypothetical described above, a court asked to rule on that question would have to determine whether the 1.5% rate that is now asked by X is FRAND and, in my view, the rate initially charged by A should certainly inform the court's

[89] See, e.g., Article 6.1 bis, ETSI Intellectual Property Rights Policy, available at www.etsi.org/images/files/ipr/etsi-ipr-policy.pdf; See IEEE - SA Standards Board Bylaws, section 6, patents, available at standards.ieee.org/develop/policies/bylaws/sect6-7.html

[90] In case of licensing disputes involving SEPs, the calculation of an "effective" royalty rate is necessary to implement the "non-discrimination" part of FRAND. Because licensing agreements can comprise different forms of consideration (e.g., some licenses will provide for a lump-sum payment while others provide for a running royalty rate; some licenses are one-way licences whereas others contain a cross-licence, etc.), the only way to verify that the SEP holder does not discriminate between licensees is to translate all the elements of considerations contained into the licences compared into an effective royalty, i.e. the royalty rate that is effectively paid by every licensee. Various economic methodologies can be used to, for instance, determine the effective royalty rate that would be paid by a licensee that would pay a lump sum agreement and offering a cross-licence to the SEP holder.

[91] See Birss J, *Unwired Planet v. others*, 14 July 2015, [2015] EWHC 2097 (Pat), at § 35.

assessment of X's new proposed rate. Short of a convincing explanation, sudden and unjustified increase in the proposed royalty rate might be considered not to be FRAND.

b. Refusal to honour maximum royalty rate commitment made prior to standardization

Another competition law issue could potentially arise if a PAE to which an operating company had transferred its SEPs refused to comply with the maximum royalty rate that the original holder of the patents would have made to an SSO prior to the adoption of the standard in question. Such *ex ante* commitments are regularly made as they are an effective way to prevent *ex post* accusations of "hold-up".[92]

Let us, for instance, assume that in the example taken in point a) above, A had committed to charge a maximum royalty rate of 1% for its portfolio of SEPs prior to the adoption of the standard. But now, PAE X claims that, although it is bound by a FRAND commitment, it is not bound by the 1% maximum royalty rate committed by A prior to standardization.

There is little doubt that in a scenario where A would have decided to renege on in commitment to keep its royalty rate equal or below 1%, A would expose itself to a breach of Article 102 TFEU. For instance, in *Rambus*, the Commission alleged that Rambus had breached Article 102 TFEU by intentionally concealing during the formation of the standard that it had patents and patent applications which were relevant to technology used in the JEDEC standard, and subsequently claiming royalties for those patents.[93] Because of the "monopolization gap" in EU competition law,[94] the Commission thus turned the alleged patent ambush case into a claim that Rambus had charged excessive royalties for its patents in breach of Article 102 TFEU. Eventually, in December 2009, the Commission adopted a decision rendering legally binding the commitments offered by Rambus, which *inter alia* capped the licensing fees that Rambus could charge for certain patents essential to JEDEC's standard for DRMAs' chips.[95] Based on the same reasoning, it could be argued that by breaching the commitment it made prior to the adoption of the standard to license

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92 Damien Geradin and Anne Layne-Farrar, "The logic and limits of ex ante competition in a standard-setting environment", 3(1) (2007) *Competition Policy International*.

93 See "Commission confirms sending a Statement of Objections to Rambus", MEMO/07/330, 23 August 2007, available at http://europa.eu/rapid/press-release_MEMO-07-330_en.htm

94 See, for instance, Lars-Hendrik Roeller, *Exploitative Abuses* in Claus-Dieter Ehlermann and Mel Marquis (eds.), *European Competition Law Annual 2007: A Reformed Approach to Article 82 EC*, 2008 ("Article [102] only applies to firms that are already dominant. In other words, anticompetitive conduct that leads to a dominant position cannot be caught in Europe under Article [102] as an exclusionary abuse. This is an enforcement "gap", since it is precisely the way in which dominance is acquired that matters in terms of economic effects. I would suggest that antitrust enforcement against exploitative abuses can be used to close this important gap. That is, exploitative abuse cases should be based on acquiring a dominant position through anticompetitive exclusionary conduct.").

95 See "Commission accepts commitments from Rambus lowering memory chip royalty rates", IP/09/1897, 9 December 2009, available at http://europa.eu/rapid/press-release_IP-09-1897_en.htm?locale=en

its SEPs at a rate that is no higher than 1% by asking 1.5%, A would breach Article 102 TFEU and that its royalty rate should be lowered on pain of being considered exploitative under Article 102 TFEU.

The difficulty here is that it would be hard to claim that by refusing to be bound by A's commitment to charge a maximum royalty rate of 1%, X would have deceived SSO members into adopting the standard in question since it did not participate in the standardization process at the time. Moreover, as already explained in point a) above, it might be practically difficulty to maintain such a commitment when SEPs change hands multiple times. In my view, several solutions to this problem could be explored. One solution would be to require that an SEP holder, which made a maximum royalty rate commitment to an SSO, transfers that commitment to the acquirer of its SEPs. In the absence of such a requirement, one could potentially argue that by failing to transfer that commitment to the acquirer of its SEPs, A breached an implicit contract that it made with the SSO members and thus that it should be held liable for the damages this may cause to post-transfer licensees. That solution may be hard to implement in practice, however. As for the issue of the transfer of the FRAND commitment discussed above, the best approach in case of licensing dispute may be for the judge being asked to assess the FRANDness of the 1.5% rate demanded by X to use to 1% maximum royalty rate commitment given by A as an important point of consideration in this assessment.

1.2 Reliance on outsized threats

In this subsection, I analyse the compatibility with EU competition law of three types of outsized threats that could be made by a PAE: (i) relying on injunctions, (ii) suing customers, and (iii) engaging in vexatious litigation.

a. Reliance on injunctions

Patent laws typically allow patentees to seek an injunction against companies infringing their intellectual property.[96] Injunctions play an important role as they expose infringers to the risk that their infringing products will have to be removed from the shelves at great cost. The threat of an injunction therefore incentivizes users of a patent to take a license from the patent holder or to stop infringing the patent. Depriving patent holders of the ability to seek injunctions against infringers

[96] For instance, Article 41(1) of the TRIPS agreement provides that members shall ensure that enforcement procedures as specified in TRIPS are available under their law so as to permit effective action against any act of infringement of IPR. Agreement on Trade-related Aspects of Intellectual Property Rights (TRIPS Agreement), Annex 1C to the Marrakech Agreement Establishing the World Trade Organization, signed in Marrakech, Morocco on 15 April 1994.

therefore reduces patent protection.[97] The easiness with which patent holders can obtain an injunction in case of infringement varies across jurisdictions. As illustrated by the *eBay* judgment of the U.S. Supreme Court,[98] the granting of injunctions is not necessarily automatic as it may be subject to various criteria with the result that such injunctions are no longer quasi-automatic in case of infringement.[99]

From an EU competition law standpoint, the debate has focused on the extent to which SEP holders should be able to seek injunctions to enforce their patents without violating Article 102 TFEU. This issue was examined by the Commission in two cases, one involving Motorola and the other one Samsung. In the *Motorola* case,[100] which concerned FRAND-encumbered patents essential to the GPRS standard, the Commission considered that Motorola held a dominant position on the market for the licensing of its GPRS essential patents[101] and ruled that Motorola abused its dominant position by both seeking and enforcing "an injunction against Apple in Germany on the basis of an SEP which it had committed to license on FRAND terms and where Apple had agreed to take a licence and be bound by a determination of the FRAND royalties by the relevant German court."[102] In the *Samsung* case, the Commission adopted a commitments decision making legally binding the commitments offered by Samsung limiting its ability to seek injunctions for enforcing its SEPs in the future.[103]

In *Huawei v. ZTE*, the CJEU was invited by a German Court to answer several questions regarding the extent to which an SEP holder could seek an injunction to enforce its SEPs without committing an abuse under Article 102 TFEU.[104] In its judgment, the CJEU tried to find a balance between the interests of SEP holders and those of standard implementers by developing a "licensing framework" establishing the respective rights and obligations of each party. First, the CJEU provides that, in order not to breach Article 102 TFEU, an SEP holder which considers that its patent has been infringed can only bring an action for an injunction against the alleged infringer provided that prior to bringing such an action, it has alerted the alleged infringer of the SEP "by

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97 See Vincenzo Denicolo et al., "Revisiting Injunctive Relief: Interpreting eBay in High-Tech Industries with Non-Practicing Patent Holders", (2008) 4 *Journal of Competition Law and Economics* 571.

98 *eBay Inc. v. MercExchange*, L.L.C., 547 U.S. 388 (2006)

99 Kirti Gupta and Jay P. Kesan, "Studying the Impact of eBay on Injunctive Relief in Patent Cases", July 2015, available at papers.ssrn.com/sol3/papers.cfm?abstract_id=2629399

100 Case AT.39985, supra note 54.

101 Id. at § 269.

102 Antitrust: Commission finds that Motorola Mobility infringed EU competition rules by misusing standard essential patents, Press Release, 29 April 2014, available at europa.eu/rapid/press-release_IP-14-489_en.htm?locale=en

103 Case AT.39939, supra note 54.

104 Case C-170/13, supra note 37.

designating that SEP and specifying the way in which it has been infringed."[105] Once the alleged infringer has expressed its willingness to take a licence on FRAND terms, it is also for the SEP holder to present to the alleged infringer a written offer for a licence on FRAND terms, specifying the amount of the sought royalty and the way in which that royalty is to be calculated.[106] Then, it is for the alleged infringer to respond to that offer diligently and in accordance with "recognised commercial practices in the field and in good faith".[107] That it is the case must be established "on the basis of objective factors and which implies, in particular, that there are no delaying tactics."[108] If the alleged infringer decides not accept the offer made to it, it may rely on the abusive nature of the injunction only if it has submitted to the SEP holder, "promptly and in writing, a specific counter-offer that corresponds to FRAND terms."[109] Finally, in the absence of an agreement on the details of the FRAND terms following the counter-offer by the alleged infringer, "the parties may, by common agreement, request that the amount of the royalty be determined by an independent third party, by decision without delay."[110]

This case has received considerable attention in that it defines the circumstances in which an SEP holder can seek an injunction to enforce its patents without breaching Article 102 TFEU.[111] Clearly, the ability for an SEP holder to use an injunction as an outsized threat to capture royalties that would not be in line with its FRAND commitment has been circumscribed by the CJEU. Petit, however, argues that while the restrictions placed on the use of SEP injunctions by the CJEU in *Huawei v. ZTE* apply to operating companies, they do not apply to PAEs.[112] This view is based on paragraph 52 of the judgment, which – explaining the concerns that may be raised by the use of SEP injunctions – provides that:

> "Although the proprietor of the essential patent at issue has the right to bring an action for a prohibitory injunction or for the recall of products, the fact that that patent has obtained SEP status means that its proprietor <u>can prevent products manufactured by competitors from appearing or remaining on the market and, thereby, reserve to itself the manufacture of the products in question</u>." (emphasis added)

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105 Id. at § 61.

106 Id. at § 63.

107 Id. at § 65.

108 Id.

109 Id. at § 66.

110 Id. at § 68.

111 The CPI Antitrust Chronicle of October 2015 volume was devoted to this case, available at https://www.competitionpolicyinternational.com/oct-152/

112 Nicolas Petit, "Huawei v ZTE: Judicial Conservatism at the Patent-Antitrust Intersection", *CPI Antitrust Chronicle*, October 2015.

On that basis, this author claims that the CJEU limited the prohibition contained in Article 102 TFEU to the circumstances where the seeking of an injunction leads to exclusion rather than exploitation.[113] Since pure PAEs do not have exclusionary motives, the restrictions imposed by the CJEU on the ability of SEP holders to seek injunctions would not apply to them.

In my view, Petit reads too much in paragraph 52 of the judgment. Although the CJEU answered the questions referred to it by the German court in an abstract fashion, the scenario at stake in this case was one in which an operating company (Huawei) sought an injunction against another operating company (ZTE). This particular setting may have induced the CJEU to refer to the concerns created by the use of injunction for exclusionary purposes. This seems confirmed by the reference at the beginning of paragraph 52 cited above to the proprietor of the essential patent "at issue" in the case. Second, the CJEU does not say anywhere in its judgment that PAEs should be subject to a more lenient treatment under Article 102 TFEU. Paragraphs 60 et seq., which set the precise conditions that an SEP holder must comply with when seeking an injunction to avoid breaching Article 102 TFEU, do not distinguish between scenarios involving operating companies and those involving PAEs. Similarly, the specific answer given by the CJEU to questions 1 to 4, as well as to part of question 5 raised by the referring court at paragraph 71 of the judgment does not limit the application of the restrictions imposed by the Court on the use of injunctions to enforce SEPs to the situation where the SEP holder is an operating company.

More fundamentally, it would be wrong from a policy standpoint to read the case narrowly. Clearly, while SEP injunctions can be used for exclusionary purposes, they can also be used for exploitative purposes and in many cases exclusion and exploitation are the two sides of the same coin.[114] Moreover, given the particularly high risks that PAEs may use outsized threats given they do not face the same constraints as operating companies, it would be paradoxical to further relax these constraints by giving PAEs a free pass under Article 102 TFEU when they rely on injunctions.

b. Suing customers

Suing customers may be another strategy used by PAEs to put pressure on manufacturers to take a licence at terms they might not otherwise accept. The reason is that this approach creates a risk that in order to avoid the hassle of a lawsuit, customers may just decide to no longer sell the infringing products unless the manufacturers are willing to take a licence at the terms demanded

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[113] Id.

[114] Operating companies may wish to use injunctions not necessarily to exclude their rivals, but to maximize their royalty revenues. For instance, an SEP holder that has difficulties on the product market and thus is not in a position to exclude rivals may decide to focus its efforts on maximizing its royalty revenues. A by-product of these efforts may, however, to improve its position on the product market, although it is not its primary aim.

by the SEP holder in question. This is a litigation avenue that is, however, open to PAEs only as can be illustrated in the following fashion.

Let us assume that operating firms A, B and C compete in the market for widgets. A holds a patent that may be infringed by B and C, but B and C are unwilling to take a licence at the terms demanded by A. In that scenario, A can sue B and C for patent infringement and seek an injunction if it is available. It is not, however, possible for A to put pressure on B and C by suing their customers for the simple reason that these customers may also be its own customers or at least potential customers.

Now, let us assume that A is a PAE, which holds a patent that operating firms B and C allegedly infringe. Let us also assume that B and C are unwilling to agree to the terms offered by A, and that the seeking of an injunction is complicated by the fact that the patent in question is standard-essential. In that scenario, A may decide to sue B and C's customers so as to force B and C to take a licence at the terms it seeks to impose. It is indeed likely that B and C's customers will be unwilling to take a licence. Rather, they will request B and C to take a license so that their products no longer infringe, or failing that they will no longer sell these products (assuming, of course, that suitable alternatives are available).

This latter scenario is not entirely fictional as it recently materialized in a case in Germany. In that case, a PAE named Saint Lawrence, a subsidiary of Acacia (which is one of the largest PAEs in the world),[115] filed a patent infringement lawsuit against Deutsche Telekom in the Regional Court of Mannheim on the ground that it sold mobile devices which infringed its patents essential to the AMR-WB standard.[116] While holders of SEPs typically engage in licensing negotiations with device manufacturers and, if these negotiations fail, initiate infringement lawsuits against these manufacturers, in this case Saint Lawrence did not engage in such licensing negotiations, but sued Deutsche Telekom directly and sought an injunction against them. In March 2015, the Mannheim granted such an injunction,[117] despite the efforts from Deutsche Telekom and the device manufacturers to invoke the restrictions that had been placed on the use of injunctions by the *Motorola* and *Samsung* decisions of the Commission,[118] and the Opinion of Advocate General Wathelet in the *Huawei v. ZTE* (the CJEU had not yet adopted its decision at the time).[119] The Court rejected these efforts on the ground that Deutsche Telekom had allegedly been unwilling to

115 See http://web.saintlawrencegmbh.com/patents.html

116 Saint Lawrence also filed a parallel lawsuit against Vodafone in the Regional Court of Düsseldorf.

117 See Saint Lawrence Communications GmbH v. Telekom Deutschland GmbH, District Court Mannheim 2nd Civil Division, 10 March 2015, 2 O 103/14, available atacaciaresearch.com/wp-content/uploads/2015/03/SLC-GmbH-v-Telekom-Patent-A-Judgment-Dist-Ct-Mannheim-10-MAR-2015-English-Translation.pdf

118 See supra note 54.

119 See supra note 37.

take a licence at FRAND terms and the fact that the device manufacturers which implemented the standard in question would have been able to raise an Article 102 TFEU defence if they had been the target of the injunction was irrelevant.

In my view, Saint Lawrence's strategy was a clear effort to evade the restrictions that had been placed by the Commission and that had been suggested by Advocate General Wathelet at the time on the use of injunctions by SEP holders to enforce their patents. This strategy intentionally placed Deutsche Telekom and its suppliers in a very difficult position. As far as Deutsche Telekom is concerned, taking a licence from Saint Lawrence would have given incentives to firms holding patents that may be potentially infringed by one or several of its suppliers to sue Deutsche Telekom rather than its suppliers, hence exposing itself to a torrent of litigation. As to Deutsche Telekom's suppliers, they had no choice but to take a licence at terms that were not FRAND if they wanted to remain on the list of products sold by one of their main distributors.

Although former Director General of DG Competition Alexander Italianer indicated in a speech in April 2015 that the Commission was playing a close attention to this case,[120] it is not clear whether or not the Commission intends to launch proceedings against Saint Lawrence, especially since the Karlsruhe Higher Regional Court has since decided to temporarily stay the execution of the injunction granted by the Mannheim Regional Court to the extent that it was directed against HTC mobile devices.[121] HTC was the only mobile device manufacturers that had not taken a license from Saint Lawrence.

In my view, the course of action pursued by Saint Lawrence should give rise to liability under Article 102 TFEU for the reason that the fact that the target of the injunction is the distributor rather than the manufacturers of the alleged infringing products does not render the antitrust concerns raised by the use of an injunction any less serious. On the contrary, by targeting the distributors of the devices rather than their manufacturers, the PAE makes it harder for the manufacturers to defend themselves against the injunction on the basis of an Article 102 TFEU defence and adds pressure on them to take a license at terms they would not otherwise accept.

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120 Alexander Italianer, "Shaken, not stirred. Competition Law Enforcement and Standard Essential Patents", Brussels, 21 April 2015, available at ec.europa.eu/competition/speeches/text/sp2015_03_en.pdf ("We will remain on our guard in our antitrust enforcement. Because holders of SEPs find new ways of challenging alleged patent infringements. In a recent case before the Mannheim district court, the SEP-holder sued not the producer of the phone, but the distributor of the phone: Deutsche Telekom.")

121 See Nadine Herrmann and Catherine Manley, "Germany: IP and Antitrust", Global Competition Review, *The European Antitrust Review* 2016.

1.3 Engaging in vexatious litigation

One of the criticisms regularly made against PAEs is that they do not hesitate to sue manufacturers and, in some case users, on the basis of patent portfolios of dubious quality (because (many of) the patents they comprise are invalid or non-infringed).[122] Although in such cases the PAEs have little chance to win the infringement lawsuits they file, they hope that the manufacturers or end users in question will settle rather than face the costs and uncertainty of defending a lawsuit. The question that arises in this case is whether this strategy could amount to "sham" or "vexatious" litigation in breach of Article 102 TFEU.

The extent to which a dominant firm could breach Article 102 TFEU by engaging in vexatious litigation was explored by the General Court of the EU ("GCEU") in the *ITT Promedia* case.[123] This case concerned litigation between Belgacom, the incumbent telecommunications operator in Belgium, and Promedia, a firm producing business directories. Belgacom and Promedia brought claims and counterclaims before the Belgian courts. Promedia also lodged a complaint to the Commission against Belgacom alleging *inter alia* that Belgacom's legal actions were brought for the purpose of harassing Promedia. When the Commission rejected its complaint, Promedia filed an appeal to the GCEU.

While the GCEU recognized that access to the Court was "a fundamental right and a general principle ensuring the rule of law",[124] it nevertheless considered that the fact that legal proceedings are brought could amount to an abuse of a dominant position in "wholly exceptional circumstances".[125] The GCEU also accepted the Commission's position that two cumulative conditions had to be met for the exceptional circumstances in which bringing a court action could amount to a breach of Article 102 TFEU to be present. First, the action could not "reasonably be considered as an attempt to establish the rights of the undertaking concerned and can therefore only serve to harass the opposite party."[126] Moreover, "the action was conceived in the framework of a plan whose goal is to eliminate competition."[127] The Court provided that "since the two cumulative criteria constitute an exception to the general principle of access to the courts, which ensures the rule of law, they must be construed and applied strictly, in a manner which does not defeat the application of the general rule."[128]

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[122] See Jurata and Patel, supra note 15, at 1276.

[123] Case T-111/96, *ITT Promedia v. Commission*, 1998 E.C.R. II-02937. See also Case T-119/09 *Protégé International v Commission*, 2012 E.C.R II-0000.

[124] Id. at § 60.

[125] Id.

[126] Id. at § 30.

[127] Id.

[128] Id. at § 61.

Although there may be circumstances in which the first condition indicated above is met because the lawsuit brought by the PAE is manifestly unfounded, the second condition will not be met when the PAE in question does not have a relationship with an operating company. It is not in the interest of a pure PAE to exclude the target of its action from the market as in that case it will not obtain license fees. Whether that condition could be met in the case of a hybrid PAE depends on the relationship it has with the operating company from which it transferred the patents, as will be seen below. In my view, this second condition is criticisable as both exclusionary and exploitative abuses fall under Article 102 and vexatious litigation can be used for both exclusionary and exploitative purposes.

B. Hybrid PAEs and competition law

Hybrid PAEs are those that have contractual relationships with operating companies that sell the same products as those targeted by the PAE or substitutes to these products. It has been alleged that hybrid PAEs can create serious competition concerns. In this section, I illustrate through simple numerical examples the ways in which hybrid PAEs are formed and operate, as well as the extent to which their activities can create concerns under Articles 101 and 102 TFEU. While these examples are fictitious, they are nevertheless inspired by the numerous IP-related transactions that have taken place in the last few years as well as the disputes they have triggered.[129]

I should note that the competition concerns that have been identified in Section A above as they apply to pure PAE activities also apply in this case. This section therefore discusses additional competition concerns resulting from the relationship that the operating company maintains with the PAE following the transfer of the patents.

1. Scenario 1: Patent divestment to a PAE

This first scenario illustrates the competition law issues that may arise when an operating firm transfers some of its patents to a PAE and maintains an influence on the way in which the PAE will assert its patents.[130]

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[129] See the next note.

[130] For examples of transactions involving operating companies and PAEs, see, e.g. Unwired Planet's acquisition of 2,185 Ericsson patents, see http://investor.unwiredplanet.com/releasedetail.cfm?ReleaseID=732752; Vringo's acquisition of 500 Nokia patents, see http://finance.yahoo.com/news/nokia-sell-500-patents-licensing-193248944.html; Sisvel's acquisition of 450 Nokia patents, see http://www.sisvel.com/index.php/sisvel-news/257-sis; Pendrell's acquisition of 125 Nokia patents, see http://www.prnewswire.com/news-releases/pendrell-acquires-foundational-memory-technology-patent-portfolio-from-nokia-199847671.html

1.1 Description of the scenario

Let us assume that operating firm A owns a portfolio of 20,000 SEPs, which it decides to divide in two parts. A retains 16,000 SEPs and divests 4,000 SEPs to a PAE called IPX. IPX pays a modest amount of money to acquire the patents, but signs a revenue-sharing agreement with A, whereby A will collect 50% of the licensing revenues that IPX generates in the future. This agreement contains additional obligations, regarding the way in which IPX should conduct its licensing business. While an operating firm like A may wish to divest some of its patents to PAEs for a variety of valid reasons, concerns have been expressed that the type of arrangements discussed above may be used to harm the operating firms' rivals, a strategy described as "privateering".[131] Privateering is usually described as an attempt by an operating company to raise its rivals' costs.[132]

In the above example, let us further assume that A concluded its patent transactions with IPX on 1 January 2012. Before that A had concluded a licensing agreement for its SEPs with its rival, operating company B, on 1 January 2010 for the period 2010-14. Although B holds some SEPs, A's portfolio is stronger and therefore B agreed at the time to pay a 2% royalty rate for a license, which expired on 31 December 2014. In September 2014, A and B started negotiating a new licensing agreement for the period 2015-19. While B was aware that A had divested 4,000 patents to IPX, A argued that the royalty rate should be maintained at 2% because the 4,000 patents divested to IPX had been compensated by the new patents it had been granted by the patent office. As a sign of good will, A however accepted to lower its royalty rate to 1.9%. B was satisfied with this arrangement.

In January 2015, IPX reaches out to B to initiate licensing negotiations for the SEPs acquired from A. IPX demands a royalty rate of 1%. B is unhappy with this demand as while it paid a 2% royalty rate for its initial license with A for the period 2010-14, it is now exposed to a cumulative royalty rate of 1.9% + 1% = 2.9% for the period 2015-19, which is an increase of 0.9%. By contrast, A is satisfied as it will earn an additional 0.5% (1% x 50%). The royalty revenues it will collect from B will thus increase to 2.4%. When B asks IPX how it can justify a royalty rate of 1% (i.e. 50% of the 2% rate initially charged by A), while IPX only acquired 20% of A's patents (4,000 out of 20,000 patents), IPX claims that A's portfolio was undervalued and that, in any event, the patents it acquired from A were amongst the strongest in A's portfolio. Hence, they are worth a royalty rate of 1%. While B confirms its willingness to take a license at FRAND terms, it rejects the 1% offer made by IPX. As the negotiations have failed, IPX sues B for patent infringement.

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[131] See supra note 7.

[132] See supra note 64.

This hypothetical scenario is not pure fiction: it arises on a regular basis as operating companies increasingly rely on PAEs to monetize their patent portfolios.[133] While this approach can be profitable to both the original owner of the patents and the PAE, the above example shows how it can harm rivals. Another problem with this scenario is that it increases the fragmentation of patent portfolios and thus contributes to the "Cournot complements" (in IP parlance "royalty stacking") problem that may occur when patents are held by very many owners.[134]

1.2 Competition law analysis

Prior to reviewing the above arrangement under Articles 101 and 102 TFEU, it is important to make a couple of preliminary observations.

First, there is of course no reason why a standard implementer like A should be banned as a matter of principle to transfer patents to a PAE. Patents are transferable rights and patent transfers can be a source of efficiencies. For instance, operating companies may entrust specialized entities with monetising their patents, while focusing on their R&D and manufacturing activities. This is particularly true for operating companies that do not have the resources and expertise to run licensing negotiations. A justification that is at times made by operating companies with large portfolios is that it is hard for them to obtain licensing fees reflecting the full strength of their portfolio as there is no linearity between the fees that they can obtain through negotiation or litigation and the size of their portfolio. I find this justification doubtful as there no evidence that large patent portfolio holders are unable to obtain compensation reflecting the value of their portfolio. In this respect, it is important not to confuse the *size* of a portfolio with its *strength* as in many instances patent holders tend to inflate the number of patents they hold. Moreover, such an approach to grow licensing revenues is inefficient as it leads to portfolio fragmentation and thus contributes to royalty stacking.[135]

Returning to our example, it is first important to identify the nature of the patent transfer agreement concluded between A and IPX, which in addition to transferring 4,000 SEPs also contains a variety of provisions governing the ways in which IPX should conduct its licensing operations (hence, the reason why IPX is a "hybrid" PAE). In my view, this is a vertical agreement since A and IPX do not compete on any market. First, IPX does not compete with A on the market for standard-compliant products. Moreover, the patents transferred being standard-essential, the patents that

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133 For a list of operating companies engaging in privateering, see Privateering: let's name and shame companies that feed patent trolls, 12 May 2015, available at www.fosspatents.com/2015/05/privateering-lets-name-and-shame.html

134 On Cournot Complements and royalty stacking, see Damien Geradin et al., "The Complements Problem Within Standard Setting: Assessing the Evidence on Royalty Stacking", 14, (2008*) Boston University Journal of Science & Technology Law*, 144

135 Id.

remain held by A and those transferred to IPX are not substitutes and therefore do not compete on any given licensing market.

Whether or not the agreement between A and IPX can breach Article 101 TFEU depends on the conditions that are attached to the transfer of the patents. Let us, for instance, imagine that A is active in the market for widgets which is price competitive. A has a 30% market share and it competes with B, its strongest rival, as well as a range of smaller firms. A has a cost advantage over B because B has a weaker patent portfolio, but this advantage is not decisive and A would thus like to increase it. Smaller rivals, C, D, E and F also need to take a licence, and the SEPs transferred to IPX are also essential to a variety of other products manufactured by firms with which A does not compete. A, however, expressly agrees with IPX that it should target B and focus its litigation efforts on that company. This approach is advantageous to A, which will increase its royalty revenues, but it is clearly disadvantageous to B as it will face litigation costs and, depending on the outcome of the litigation, may have to pay a greater amount of money for the SEPs originally owned by A. As the market is competitive and margins are thin, A's strategy could be lethal to B.

In my view, it could be argued that in the above scenario the patent transfers between A and IPX and the conditions attached to it have the *object* or at least the *effect* of restricting competition in the market for widgets depending on what the evidence shows.[136] Of course, while A is unlikely to include in its agreement with IPX a provision explicitly stating that IPX has to primarily target B or other rivals, it can structure the agreement in such a way that IPX will have incentives to do so.[137] A could also incentivize IPX to target B by offering litigation assistance if it were to sue that company.[138] In case the restriction is found to be by effect, the agreement would have to be analysed under Article 101(3) TFEU and possible efficiencies of the agreement between A and IPX should be taken into account.[139]

An intriguing question is whether, given the risks of anti-competitive behaviour described above, operating companies should be allowed to maintain a relationship with PAEs once the transfer of the patents has been made. There may be good financial reasons why an operating company and the PAE may keep a post-transfer financial relationship. For instance, the PAE may not be financially able to purchase the patents in which case a revenue-sharing agreement is an attractive way to fund the acquisition of these patents (although third-party funding should generally be available). It some cases, it may also be argued that the PAE may need the assistance of the original owner of the patents in its efforts to license them to third parties. It is thus not clear it would be

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136 On the notion of restriction by object and by effect, see Case C-67/13 P, *Groupement des cartes bancaires (CB) v. Commission*, 2015 E.C.R. I-0000.

137 See Popofsky and Laufert, supra note 60, at 6.

138 See Popofsky and Laufert, supra note 7, at 460.

139 Id.

desirable to prohibit the maintenance of a post-transfer relationship between the operating company and the PAE. The presence of such a relationship requires, however, particular vigilance given the risks of anticompetitive behaviour created by such relationships.

More generally, the deeper the degree of control exercised by the operating company post-transfer, the higher the degree of vigilance as the impact of the relationship between the operating company and the PAE on competition in downstream markets. For instance, a provision fixing the minimum royalty at which IPX could license the SEPs transferred by A should be seen suspiciously, unless it can be shown that it is strictly necessary to protect A's investment in transferring patents to IPX. A similar degree of suspicion should apply to a provision, which would contractually oblige IPX to license its SEP portfolio for a running royalty rate rather than a lump sum agreement as it could be intended to increase its rivals' *marginal* costs and thus render their products less competitive.[140] These are some examples of the conditions that A could potentially use to ensure that IPX will inflict damage on its rivals.

In addition to basing its defence on EU competition law, B and other potential IPX targets can of course argue that IPX's proposed rate (1%) is not in compliance with its FRAND commitment. Courts are increasingly familiar with the determination of FRAND rates and several judgments adopted by US federal courts suggest methods that can be used to determine FRAND rates.[141] While I will not dwell on these methods,[142] an interesting issue relates to the extent to which the 2% royalty rate paid by B to A in their initial licensing agreement (2010-14) should inform the determination of the FRAND rate that B should have to pay to IPX. Given the fact that the comparative method is recognized method to determine FRAND rates,[143] there is no doubt in my view that the initial royalty paid by B to A should inform that determination. Of course, parties will likely disagree on the extent to which the initial 2% rate should inform the IPX rate – with B probably arguing that since IPX acquired only 20% of A's patents its rate should not exceed 0.4% and IPX disagreeing since the SEPs it acquired from A were among its best – but the 2% rate should be an important input in the FRAND determination.

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[140] See Guidelines on the application of Article 81(3) of the Treaty, 2004 O.J., C 101/97, at § 98 ("The nature of the efficiency gains also plays an important role. According to economic theory undertakings maximise their profits by selling units of output until marginal revenue equals marginal cost. Marginal revenue is the change in total revenue resulting from selling an additional unit of output and marginal cost is the change in total cost resulting from producing that additional unit of output. It follows from this principle that as a general rule output and pricing decisions of a profit maximising undertaking are not determined by its fixed costs (i.e. costs that do not vary with the rate of production) but by its variable costs (i.e. costs that vary with the rate of production). After fixed costs are incurred and capacity is set, pricing and output decisions are determined by variable cost and demand conditions.")

[141] See supra note 79.

[142] For a discussion of these methods, see Anne Layne-Farrar and Koren W. Wong-Ervin, "Methodologies for Calculating FRAND Royalty Rates and Damages: An Analysis of Existing Case Law", October 2014, available at papers.ssrn.com/sol3/papers.cfm?abstract_id=2668623

[143] See the Motorola and Innovatio LLC judgments, supra note 79.

2. Scenario 2: Operating companies set up a PAE to monetize patents they acquire from another operating company

This second scenario illustrates the competition law issues that may arise when several operating firms acquire patents from another operating which they decide to license through a PAE.

2.1 Description of the scenario

Let us assume that operating company A, which holds a portfolio of 4,000 non-standard essential patents, is filing for bankruptcy. This portfolio is auctioned to pay off A's liabilities.[144] Various consortia are set up to bid for the patents and the auction is eventually won by companies B, C and D – which compete with A, E, F and G on the market for widgets – for a sum of € 250 million. The patents held by company A were never licensed. Besides the fact that A was poorly run, its management was unsure of the quality of these patents (as the patent prosecution work was sloppy, many of the patents could be invalid) and the company had no experience with licensing. The patents were essentially kept for defensive purposes.

Let us further assume that that there are two methods to produce widgets. Method 1, which is the method used by B, C and D, is based on a patent-protected technology referred to as W1. Method 2, which is the method used by A, E, F and G, is based on a patent-protected technology referred as W2. Many of the 4,000 patents acquired from A cover the W2 technology. By acquiring the 4,000 patents, B, C, and D thus laid their hands on patents that they will be able to assert against their remaining rivals E, F and G.

2.2 Competition law analysis

This scenario raises several competition issues. Assuming for the sake of the example that the acquisition of A's patents by B, C, and D was a reportable transaction under the EUMCR, the Commission would seek to determine whether B, C and D would be likely to have the *ability* and

[144] For instance, when Canadian Nortel went into bankruptcy, its patents were sold by auction. See Peg Brickley, "Nortel $4.5-Billion Patent Sale to Apple, Microsoft, Others Approved", *Wall Street Journal*, 11 July 2011, available at www.wsj.com/articles/SB10001424052702303812104576440161959082234. Other acquisitions by consortia CPTN Holdings LLC (a consortium of technology companies led by Microsoft)'s acquisition of acquired a portfolio of 882 patents as part of the sale of Novell to Attachmate, see http://www.pcworld.com/article/211366/microsoft_purchasing_882_novell_patents.html. On the concerns created by these transactions, see Ilene Knable Gotts and Scott Sher, "The Particular Antitrust Concern with Patent Acquisitions", (August 2012) *Competition Law International* 30.

incentive post-transaction to significantly impede effective competition.[145] In the scenario discussed above, it seems likely that B, C, and D would have both the ability and incentive to significantly impede competition in the downstream market. The Commission could thus seek to obtain a remedy, such as for instance a commitment to license at FRAND terms,[146] ensuring that B, C, and D, are not able to distort competition on the downstream widgets market.

If the transaction fell outside the scope of the EUMCR or if the Commission decided not to impose any *ex ante* remedy, the transaction could nevertheless raise issues under Articles 101 and/or 102 TFEU. Let us assume, for instance, B, C and D decide to recoup their investment by setting up a PAE (named PATCo) to monetize the 4,000 patents acquired from A. Each of them concludes a royalty free license for the patents transferred to PATCo. Other standard implementers can acquire a license from PATCo, but at a 2.5% royalty rate. The net revenues generated by PATCo are distributed to its shareholders. While B, C and D will likely benefit from this transaction, it will raise the cost of their rivals E, F and G, which may therefore decide not to take a licence and raise a competition law defence if they are sued by PATCo.

In such a scenario, the question would be whether the above arrangement has the object or effect of restricting competition in the widgets market.[147] In the presence of evidence showing that the purpose of acquiring the patents from A and in entrusting them to PATCo was to raise rivals' costs with the objective to drive them from the widgets market, the court hearing the competition law defence would have to conclude that the agreement between B, C, and D has the object of restricting competition and that there is no need to show the presence of anticompetitive effects. If by contrast, no such evidence was found, the court would have to show that this agreement has the effect of restricting competition.

Two aspects of the example presented above would require particular attention. First, B, C, and D effectively acquired patents that they will not practice, but for which their competitors will have to take a license (if only because of the size of the portfolio and the litigation risks to which it exposes them).[148] Second, PATCo would not be under pressure from its shareholders to charge the profit-maximizing royalty. In fact, it would likely charge supra-monopoly royalties in order to

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[145] See Case No COMP/M.7047, Microsoft Nokia, supra note 52; Case No COMP/M.6381 - Google / Motorola Mobility, supra note 52; Case No COMP/M.7202 - Lenovo / Motorola Mobility, 26 June 2014, C(2014) 4459 final.

[146] Although the portfolio at stake does not comprise essential patents, it could be used to significantly lessen competition. Mandating B, C and D to licensing these patents at FRAND terms would be an effective way to avoid that outcome.

[147] See supra text accompanying note 136.

[148] See Lemley and Melamed, supra note 27, at 2146 ("Unless practicing entities decide to go into a new troll business, they are generally interested in buying only patents that are related to their product businesses or serve as a strategic defensive assets that might further those businesses.")

reduce demand for E, F and G's products and therefore increase demand for B, C and D's products.[149] The anticompetitive effects of the arrangement described above would have to be counterbalanced with the efficiencies that are generated by entrusting of the patents to PATco. B, C, and D could, for instance, argue that their approach created a one-stop licensing for A's patent portfolio, which is preferable that having these patents held and licensed by multiple entities.

In any event, if PATco could be shown to have a dominant position on the market for the licensing of M2 patents (assuming such a market exist), its ability to exploit its market power would also be constrained by Article 102 TFEU. Unlike in the case of pure PAEs as discussed above,[150] being a hybrid PAE could, for instance, expose PATco to allegations of sham litigation or other forms of abusive behaviour as the risk of exclusion would be present.

In sum, whether or not the scenarios discussed above raise competition law problems entirely depends on the way the patent transactions between the operating companies and the PAEs are designed. It cannot, of course, be assumed that the activities of hybrid PAEs necessarily breach competition law, but they should be subject to tight scrutiny given their significant anti-competitive potential.

V. Conclusions

PAEs are playing a growing role in the United States, but also in Europe. Their activities are controversial in that while they may be a source of efficiencies, they may also create anticompetitive harm. Given the growing trend of operating companies transferring patents to PAEs in order to increase their licensing revenues, the risks of anticompetitive harm created by PAE activities must be taken seriously. When analysing the impact of PAE activities on competition, a distinction must be drawn between pure PAEs and hybrid PAEs. While pure PAEs create risks of exploitation, hybrid PAEs create exclusionary concerns as such PAEs may be used by operating companies to harm their rivals on downstream product markets. These exclusionary concerns are particularly serious when the operating company retains a significant degree of control over the activities of the PAE following the transfer of the patents. As there is currently no EU competition case-law on the activities of PAEs, this paper has attempted to show through hypotheticals that depending on the circumstances of each case, privateering may lead to exclusion.

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149 Id. at 2145. See also Dolmans, supra note 19, at 83.

150 See supra text accompanying notes 122-128