Patent Assertion in the United States and Europe: Contrasting the Recent European Commission's PAE Study with the Federal Trade Commission's PAE Study

Paul Lugard, David Gabathuler, and Buki Owa[1]

I. Introduction

There has been an ongoing debate in antitrust and patent law circles regarding the true impact of patent assertion entities (PAEs) on competition and innovation.[2] Unsurprisingly, opinions are often polarized. PAEs may help to foster innovation by providing innovators with an alternative means to obtain financial rewards for their inventions and by increasing the liquidity of patent markets.[3] However, they are sometimes also viewed as harmful, because of their alleged aggressive and unmeritorious patent litigation suits, thus seen as imposing an undesirable cost on implementers of technology with the consequent risk of harming innovation.[4]

There is a general consensus both in Europe and in the United States that PAEs are becoming increasingly prevalent in patent litigation, in Europe in particular in matters involving standard-essential patents (SEPs). A research paper from 2013 already showed that the majority of patent infringement lawsuits in the United States in 2012 were brought by what the authors referred to as patent monetization entities (PMEs).[5] Even though PAEs are perhaps less visible in the

[1] Paul Lugard is a Brussels-based partner with Baker Botts; David Gabathuler is a consultant working with Baker Botts Brussels; Buki Owa is a Brussels-based associate with Baker Botts.

[2] *See, e.g.*, Geradin, D., *Patent Assertion Entities and EU Competition Law* (2016), George Mason Law & Economics Research Paper No. 16-08; Love, B. J., Helmers, C., Gaessler, F., Ernicke, M., *Patent Assertion Entities in Europe* (2015) in Sokol, D. (ed.), *Patent Assertion Entities and Competition Policy*, Cambridge University Press, 2016; Xiao, J., *In Defense of Patent Trolls: Patent Assertion Entities as Commercial Litigation Funders* (2016), 16 Chi.-Kent J. Intell. Prop. 36; Holte, R.T., *Trolls or Great Inventors: Case Studies of Patent Assertion Entities* (2014), St. Louis University Law Journal, Vol. 59, No. 1, 2015; Ashtor, J.H., Mazzeo, M.J. and Zyonts, S., *Patents at Issue: The Data Behind the Patent Troll Debate*, George Mason Law Review, 21(4), 957-978; Contreras, J.L., *Assertion of Standards-Essential Patents by Non-Practicing Entities*, Sokol, D. (ed.), *Patent Assertion Entities and Competition Policy*, Cambridge University Press, 2016; M. Dolmans *Privateers and trolls join the global patent wars; can competition authorities disarm them?* (2014), Computerrecht 2014/37, pp. 80–88.

[3] Geradin, D., *Patent Assertion Entities and EU Competition Law* (2016), George Mason Law & Economics Research Paper No. 16-08.

[4] European Commission, JRC Science for Policy Report, *Patent Assertion Entities in Europe: Their impact on innovation and knowledge transfer in ITC markets* at p. 1, November 2016 (hereafter, EC Study), https://ec.europa.eu/jrc/en/publication/eur-scientific-and-technical-research-reports/patent-assertion-entities-europe-their-impact-innovation-and-knowledge-transfer-ict-markets.

[5] It is estimated that PMEs filed 56% of the patent lawsuits in the United States. *See* Feldman, R., Ewing, T. and Jeruss, S., *The AIA 500 Expanded: The Effects of Patent Monetization Entities* (2013), UC Hastings Research Paper No. 45.

European Union, there has been a rise in European cases involving assertion of SEPs by PAEs. In a few of those cases, injunctions were actually granted to PAEs.[6]

It is against this background that both the Federal Trade Commission (FTC) and the European Commission (hereafter, EC or Commission) have examined PAE activity in their respective territories.[7] The studies were published a few weeks apart, but the EC Study has gone relatively unnoticed. Both studies sought to provide an overview of how PAEs are structured and organized, how they acquire and assert patents, and whether they facilitate patent monetization for inventors. However, the study prepared by the Commission is essentially an initial foray into the topic for the European Union and is especially opportune in light of the establishment of the Unified Patent Court (UPC).

The fact that the EC Study is smaller-scale and less ambitious than the FTC Study can be partly attributed to the context in which it was carried out. The EC Study was commissioned by the Commission's Joint Research Centre (JRC) in the context of the European Union's Digital Single Market Initiative (DSM); an initiative aimed at breaking down barriers to allow the free flow across Europe of digital goods, technology and services.[8] The EC Study is therefore intended to improve the understanding of innovation in the Information and Communications Technlogy (ICT) sector by examining developments that could affect innovation and hamper the establishment of the DSM.

The FTC Study, on the other hand, was motivated by the agency's longstanding and significant interest and experience in assessing legal and policy developments at the intersection of antitrust and intellectual property.[9] In that regard, the FTC had already undertaken numerous initiatives on PAE activity. It published a report in 2011[10] in which it discussed the emergence of PAE business models and sponsored a public workshop to explore the impact of PAE activity on

[6] Those PAEs include IPCom, Vringo, France Brevets, Sisvel and Unwired Planet. Vringo, France Brevets and Sisvel have successfully obtained injunctions in German district courts against practicing entities which were implementing their patents. Deutsche Telekom reportedly paid "hundreds of millions of euros" to settle a German patent suit filed by IPCom (*see IPCom lands cash bonanza from D. Telekom settlement – sources*, REUTERS (Jul. 3, 2013), http://www.reuters.com/article/deutschetelekom-patent-idUSL5N0F72GN20130703).

[7] Federal Trade Commission, *Patent Assertion Entity Activity*, October 2016 (hereafter, FTC Study), https://www.ftc.gov/reports/patent-assertion-entity-activity-ftc-study and EC Study, see note 4.

[8] For more information, *see* https://ec.europa.eu/digital-single-market/en/digital-single-market. The EC Study was prepared within the context of the project on European Innovation Policies for the Digital Shift (EURIPIDIS) jointly launched in 2013 by JRC and DG CONNECT of the European Commission.

[9] FTC Study, p. 35.

[10] Federal Trade Commission, *The Evolving IP Marketplace: Aligning patent notice and remedies with competition* 7–8 (2011), https://www.ftc.gov/sites/default/files/documents/reports/evolving-ip-marketplace-aligning-patent-notice-and-remedies-competition-report-federal-trade/110307patentreport.pdf.

innovation and competition.[11] The study was also carried out using the FTC's Section 6(b) of the Federal Trade Commission Act[12] authority and took three years to finalize.[13]

In contrast, the authors of the EC Study (hereafter, the Authors) relied on a combination of literature review and a limited number of targeted interviews with stakeholders (such as experts, companies, and associations) to conduct their study.[14] The lack of a more comprehensive examination of the issues is an important limitation of the EC Study, as the Authors only provide an overview of existing information on PAEs and their business models, but do not draw any definitive conclusions or substantiated policy recommendations from this information. This limitation is recognized by the Authors themselves, who state that:

> *"It would be useful to conduct a quantitative empirical analysis to test whether, all else being equal, PAEs tend to assert lower or higher quality patents than practicing entities, or if there are particular types of PAEs that focus on asserting lower or higher quality patents. Moreover, a comparison is required of companies that enforce their patents with the help of PAEs with those that engage in independent enforcement."*[15]

The EC Study is potentially the precursor to a more detailed examination that will allow more definitive conclusions and policy recommendations to be made. Nonetheless, it provides very useful insights into PAE activity in Europe and a reference point for comparing the situation in the United States and Europe.

Although the FTC Study is more comprehensive – as it relies on extensive nonpublic information and data from PAEs and of their affiliates and other related entities– it still has its limitations,[16] as the FTC itself acknowledges, namely that the results of the study are based on a potentially unrepresentative sample.[17] Those concerns and observations are even more relevant in respect of the EC Study. Notwithstanding the observed limitations in the scope and quality of the FTC Study,[18] the FTC made recommendations to reform patent litigation rules and procedures to

---

[11] US Department of Justice, Public Workshop: Patent Assertion Entity Activities (Dec. 10, 2012), https://www.justice.gov/atr/events/public-workshop-patent-assertion-entity-activities.

[12] 15 U.S.C. § 46(b) (2012).

[13] FTC Study, p. 2.

[14] EC Study, pp. 13–14. This included five high-level interviews with academics and industry experts in the European IP field followed by twelve interviews with representatives from PAEs, companies that have been approached by PAEs, and companies that have used the services of PAEs.

[15] EC Study, p. 10.

[16] It relied on data of 22 PAEs and over 2,500 of their affiliates and other related entities.

[17] The study is not based on a full population of PAEs since that is not identified in any publicly available data set. Moreover, the study includes only a limited coverage of PAEs not focused on litigation (only 4 of the 22 respondents).

[18] A number of commentators have argued that the policy recommendations made by the FTC are not supported empirically due to the limitations in the underlying evidence. See Wright, J.D. and Ginsburg, D.H., *The FTC PAE Study: A Cautionary Tale About Making Unsupported Policy Recommendations* (2016), Public Domain, ABA Antitrust Section Newsletter of the Intellectual Property Committee, Forthcoming; George Mason Law & Economics Research Paper No. 16-45; Layne-Farrar, A., *Theory Versus Evidence: A Cautionary Tale for Interpreting the FTC's 6(b) PAE Study* (2016), Public Domain, ABA Antitrust Section Newsletter of the Intellectual Property Committee. See also J. Daniels, *FTC Study*

lessen PAEs' ability to use "nuisance" lawsuits to generate revenue. In contrast, the EC Study merely provides a set of soft policy recommendations and suggestions for further research, which are further discussed below.

II. PAE Business Models and Definitions

A number of definitions, and variations on those definitions, have been put forward to define the notion of PAE.[19] Both the FTC and the EC studies highlight the lack of consensus in defining PAEs and describing their business models. The Authors of the EC Study chose not to apply a set definition of PAE, but instead provide an overview of how PAEs have been previously defined in legal and economic literature.[20] They note that the term PAE can be used to describe a wide array of entities, ranging from technology and licensing firms that invest resources to develop new technologies and build patent portfolios for monetization purposes to shell companies, set up and funded by practicing firms to assert their patent rights. The EC Study focuses on the activity of a subgroup of PAEs, namely those that consistently engage in the assertion of patents as their *key modus operandi*.[21]

On the other hand, the FTC does provide a specific definition of PAEs in its study; namely businesses that acquire patents from third parties and generate revenue by asserting them against alleged infringers through licensing negotiations, litigation or both.[22] The FTC observed two specific PAE business model types: (i) *portfolio PAEs* which negotiate licenses covering large patent portfolios and (ii) *litigation PAEs* which typically sue potential licensees on smaller patent portfolios and settle shortly thereafter.[23] The FTC draws two critical observations based on this categorization, where it links the business model of the PAE and its patent litigation and licensing behavior. First, according to the FTC, the behavior of litigation PAEs is consistent with nuisance settlements, since nearly all licenses generated by litigation PAEs resulted from settlements and more than three-quarters were valued at less than the estimated cost of defending a patent lawsuit through to the end of discovery. Second, the FTC found that litigation PAEs accounted for the majority of total infringement lawsuits, but only a small amount of total licensing revenues.[24]

On Patent Assertion Entities Is Incomplete (2016), LAW360, https://www.law360.com/articles/862332/ftc-study-on-patent-assertion-entities-is-incomplete; Innovation Alliance, *What Others Are Saying – FTC's PAE Study* (2016), http://innovationalliance.net/from-the-alliance/others-saying-ftcs-pae-study/; and D. Hartline, *Acknowledging the Limitations of the FTC's PAE Study* (2016), https://cpip.gmu.edu/2016/04/25/acknowledging-the-limitations-of-the-ftcs-pae-study/.

[19] Feldman, R., *Patent Demands & Startup Companies* (2014), 16 Yale J.L. & Tech. 236, 244-254.

[20] See EC Study, p. 15, which refers to McDonough, J., *The Myth of the patent troll: an alternative view of the function of patent dealers in an idea economy* (2007), Emory Law Journal, Vol. 56, p. 189 and Reitzig, M., Henkel, J., and Heath, C., *On sharks, trolls, and their patent prey: Unrealistic damage awards and firms' strategies of being infringed* (2007), Research Policy, Vol. 36, No. 1, pp. 134–154.

[21] EC Study, p. 17.

[22] FTC Study, p. 42.

[23] By granting licenses covering small portfolios for royalties below $300.000. See FTC Study, pp. 42, 47.

[24] FTC Study, pp. 100–101.

The EC Study does not provide a similar categorization of PAE business models. It noted that the precise ways in which PAEs operate and generate revenues differ greatly. This depends on the entities falling within the relevant definition but also on the boundaries between different PAE business models. Moreover, PAEs adhering to a specific business model can occasionally, and, depending on the situation, do also adopt differing patent assertion strategies.[25] Moreover, PAE business models are fast evolving and the boundary between strategic assertion strategies traditionally adopted by practicing companies and assertion activities carried out by PAEs is stated in the study as difficult to identify.[26] Therefore, instead of providing a clear categorization between business models, the Authors identified some recurring patterns across the business models.

- First, the Authors claim that there appears to be a correlation between the sources of funding and other aspects of PAE business models, in particular in terms of impact on the business model and the assertion strategy. For example, PAEs funded by hedge funds and venture capital firms tend to adopt a short-term profit-oriented business model that relies on aggressive assertion in order to leverage the litigation value of patents. These entities view patents primarily as monetization assets and have, according to the Authors, very little interest in their technological application.[27]

- Second, as far as the quality of these PAEs' patent portfolio is concerned, the Authors note that opinions are divided.[28] On the one hand, the EC Study notes that PAEs tend to claim that they are only interested in asserting high quality patents, while, on the other hand, entities targeted by PAEs claim that the patents asserted against them are often low quality.[29] In this regard, the Authors of the study refer to high invalidity rates of PAEs' patents identified in literature which show that 73% and 56% of patents enforced in court by PAEs in the United Kingdom and Germany, respectively, are found invalid.[30] The Authors note, however, that these studies do not provide a comprehensive data set on PAE litigation in Europe.[31]

[25] EC Study, p. 45.

[26] EC Study, p. 45. In addition to PAEs, the Authors also identified other entities that engage in peripheral activities that complement patent assertion. These entities are more likely to have established some form of cooperation with universities and research organizations and will receive revenue from a variety of sources.

[27] EC Study, p. 18.

[28] EC Study, pp. 21–23.

[29] EC Study, p. 46.

[30] *Id*. The EC Study refers to Love, B. J., Helmers, C., Gaessler, F., Ernicke, M., *Patent Assertion Entities in Europe* (2015) in Sokol, D. (ed.), *Patent Assertion Entities and Competition Policy*, Cambridge University Press, 2016. The time periods covered by that study are 2000–2013 for the United Kingdom and 2000-2008 for Germany.

[31] EC Study, p. 21.

III. Portfolios and Entities Targeted by PAEs

Both the FTC and the EC Study identified the computer and telecoms sectors as the ones subject to most PAE activity.[32] The EC Study states that this makes sense historically since European companies played a key role in the development of telecoms standards in the 1980s and 1990s and, as a result, a very large number of patents were granted in this field. Some firms operating in the telecoms sector that deployed the technology and are no longer active in the sector have turned to PAEs in order to monetize their IP assets.[33] The situation is similar in the United States where the FTC notes that 88% of the patents held by PAEs included in its study were patents directed at computers, communications, or other electronic technology, with more than three-quarters of those being software-related.[34]

An important difference, however, between the EC Study and FTC Study relates to the prevalence of SEPs in PAEs' patent portfolios. The EC Study finds that PAEs typically own and enforce SEPs.[35] It refers to statistics which suggest that PAEs have initiated 64% of all SEP litigation cases.[36] The Authors confirm this finding and state that, to different degrees, SEPs are present in the portfolios asserted by PAEs. Remarkably, however, the FTC found that fewer than 1% of patents owned by PAEs in its study involved standard-essential patents.[37]

IV. Differing Landscapes

Although the phenomenon of PAEs has a worldwide dimension, several studies show that PAE activity developed differently in the United States and European Union, a phenomenon which is also highlighted in the EC Study.[38] According to the study, there are several factors intrinsic to the different institutional legal frameworks in the two jurisdictions which make the US a more attractive environment for PAE activity than Europe. First, the fragmentation and size of the EU market might disincentivize PAEs from asserting their patents in Europe since each individual assertion pertains to a Member State's domestic market which is significantly smaller than the US market. Second, the more robust patent granting procedures and easier access to the opposition procedure in Europe results in higher legal certainty, which in turn discourages the activities of certain types of PAEs that base their business models on the consistent assertion of low quality

[32] EC Study, p. 6.

[33] EC Study, p. 50.

[34] FTC Study, p. 135.

[35] EC Study, p. 21.

[36] EC Study, p. 21. The study refers to Contreras, who described statistics pertaining to seven broadly adopted standards in the telecommunications and networking sectors over a 16-year period. *See* Contreras, J.L., Patent Pledges (2015), 47(3) Arizona State Law Journal 543; University of Utah College of Law Research Paper No. 93.

[37] FTC Study, p. 136.

[38] EC Study, p. 39.

patents in Europe.[39] Thirdly, the fact that damages are generally much higher in the United States than in Europe and that the cost of litigation in the United States can be ten times higher than in Europe plays into the hands of PAEs who may be able to more effectively force the alleged infringer to weigh up the cost of litigation against the cost of settlement. Fourthly, the substantial jury awards granted by US courts and the perception that some US federal courts have been known to be IP owner-friendly has incentivized PAEs operating in the United States to engage in forum-shopping.[40]

However, the EC Study also identifies certain factors, both in the European Union and in the United States, that are likely to increase patent assertion activity in the near future.[41] The Authors believe that, in the United States, both pending legislation and recent court decisions promise to increase the regularity with which US courts award fees in patent suits.[42] In the European Union, the UPC will provide the possibility of seeking injunctions with unitary effect across the European Union. The Authors also state that the existence of the UPC might make it easier for PAEs to engage in forum-shopping.[43]

The UPC itself does not believe that its existence will make it easier for non-practicing entities to sue innovative companies. It claims that there are several safeguards to prevent such a development. In that context, it lists certain aspects of patent litigation in the United States which do not appear relevant in the context of the UPC; namely cost allocation rules in court (both parties bear their own costs); contingency fee payments for lawyers, creating incentives for lawsuits; high damage awards and risk of treble damages in the case of "willful infringement" and pro-patentee posture of US courts and juries.[44] In addition, the UPC will not automatically grant preliminary injunctions. When granting such injunctions, the court shall have the discretion to weigh the interests of the parties.[45] If the patent holder is a PAE, the UPC believes this factor is likely to play a role in such an assessment, suggesting that injunctions may be less readily available in the case of PAEs. [46]

---

[39] EC Study, pp. 39–40. The EC Study does not discuss the notion of patent quality in great detail, but suggests that the stricter patent granting process in Europe and the higher level of legal certainty contribute to the quality of patents granted.

[40] EC Study, pp. 40–41.

[41] EC Study, pp. 43–44.

[42] The EC Study refers to the America Invents Act (H.R. 1249, Sept. 16, 2011, https://www.uspto.gov/aia_implementation/bills-112hr1249enr.pdf) and the legal precedent set in *Alice Corp. Pty. V. CLS Bank Int'l*, 134 S. Ct. 2347, 198 L. Ed. 2d 296 (2014).

[43] EC Study, pp. 43–44.

[44] *See* Unified Patent Court, *Impact of the UPC*, https://www.unified-patent-court.org/faq/impact-upc-0.

[45] Article 62 of the UPC Agreement, which states that "The Court shall have the discretion to weigh up the interests of the parties and in particular to take into account the potential harm for either of the parties resulting from the granting or the refusal of the injunction."

[46] *See* Unified Patent Court, *Impact of the UPC*, https://www.unified-patent-court.org/faq/impact-upc-0.

V. Implications of the EC Study in Light of the FTC Approach

The FTC Study makes four specific recommendations for legislative and judicial reform.[47] First, it recommends developing rules and practices that would level the discovery burden and costs between PAEs and accused infringers. Second, it proposes that Federal Rule of Civil Procedure 7.1 be amended to require PAEs to disclose affiliate companies that have interests in the litigation. Third, it proposes the adoption of provisions encouraging courts to stay PAE actions against end users when the manufacturer has been sued under the same infringement theory. Fourth, it suggests that courts should further develop the "plausibility" standard of pleading to provide sufficient notice to accused infringers. It remains to be seen if and when policymakers will address the FTC's concerns through substantive and procedural reform, since, as noted above, the FTC's policy recommendations have been heavily criticized in the literature.[48]

In contrast, the Authors of the EC Study put forward two "soft" policy recommendations.[49] First, they suggest that large-scale assertion of low-quality patents can be limited by maintaining high standards in patent granting procedures in Europe. Secondly, they find that the European patent policy could be directed towards minimizing legal uncertainty and suggest that the behavior of some PAEs that exploit this exact type of uncertainty can be reduced by increasing patent ownership transparency and increasing the clarity of FRAND licensing commitments for SEPs.[50] The Authors, however find that in order to make "hard" policy recommendations, further research is necessary.[51]

VI. Concluding Comments

The EC Study provides an initial inventory of PAE activity in Europe and presents an interesting and complementary view to the analysis conducted by the FTC. Despite its modest ambitions and research methodology, it is not without merit. Significantly, the EC Study acknowledges that implementers have a strong incentive to avoid paying required licensing fees and notes that PAE activity may counterbalance hold-out behavior and assist companies to obtain adequate remuneration for their R&D investments. PAEs may also be an important monetization tool for micro, small and medium-sized enterprises, universities, and other organizations which have limited capability to engage in IP monetization and may provide valuable consulting services.[52] The study observes that positive welfare implications are particularly likely to arise if the asserted patents are of high quality. The study also notes that the European regulatory environment may limit the potential for large scale PAE assertion in Europe.

[47] FTC Study, pp. 8–13.

[48] See note 21.

[49] EC Study, p. 55.

[50] Id.

[51] Id.

[52] EC Study, pp. 30–32.

Finally, while the EC Study observes that the impact of PAE activity on innovation depends on a number of factors, in particularly the quality of the asserted patents, it does not present a clear methodology to assess the quality of patents. However, the EC Study does support the notion that PAE activity may well be welfare-enhancing in many cases and should thus be subjected to a case-by-case analysis.