Patent Trolls in the Light of IP Rights and EU Competition Law

Supervisor: Professor Mario Siragusa

Thesis presented by Moritz Jakobs for the Degree of Master of European Legal Studies

Academic Year 2010-2011
Statutory Declaration

I hereby declare that this thesis has been written by myself without any external unauthorised help, that it has been neither presented to any institution for evaluation nor previously published in its entirety or in parts. Any parts, words or ideas, of the thesis, however limited, and including tables, graphs, maps etc., which are quoted from or based on other sources, have been acknowledged as such without exception.

Moreover, I have also taken note and accepted the College rules with regard to plagiarism (Section 4.2 of the College study regulations).

Moritz Jakobs

Word Count: 13,938
Abstract

The paper deals with the increasing concern among intellectual property academics, economists and practitioners that the strategic use of patent enforcement enables right holders to exploit their patents inappropriately at excessive cost for manufacturers and consumers. Asymmetric information disadvantages resulting from the so called “patent thicket” and a considerable path dependency after the implementation of technological specifications put manufactures under a considerable risk of hold up. The ability to apply the rules of European Competition Law to unilateral patent enforcement remains uncertain. With regard to the recent case-law of the European Court of Justice under Article 102, three possible abuses of a dominant position are being discussed: refusal to license, predatory litigation and excessive pricing. Further attention is drawn to an evolution of the jurisprudence of the US Supreme Court in respect of the grant of injunctive relief and the emerging trend among European Courts to introduce more flexibility into patent infringement proceedings. As a possible remedy inherent to the current patent system, the principle of proportionality may serve as an alternative corrective to individual hardships opposed to a general distinction between different categories of owners under the legal regime governing patents and their judicial enforcement.
Keywords

Patent Troll
Non-Practicing-Entities
Intellectual Property
Patent Thicket
Patent Ambush
Lock-in
Refusal to License
Patent Enforcement
Predatory Litigation
Excessive Royalties
Proportionality
Flexibility
Competition Law Intervention
# Table of Contents

**Statutory Declaration** ............................................................................................................. ii

**Abstract** .................................................................................................................................. iii

**Keywords** ................................................................................................................................... iv

I. Introduction ................................................................................................................................. 1

1. Terminology ............................................................................................................................... 2

2. Characteristics of NPE .............................................................................................................. 2

3. Possible Remedies ..................................................................................................................... 3

II. Economic Background ............................................................................................................. 4

1. Rewarding and Diffusion Function of Patents .......................................................................... 4

2. Systemic Inefficiencies .............................................................................................................. 4

III. Abuse of Dominance ............................................................................................................... 7

1. NPE as Undertakings ................................................................................................................ 7

2. Dominant Position .................................................................................................................... 8

   a) Relevant Market .................................................................................................................. 8

   b) Degree of Market Power ..................................................................................................... 9

3. Types of Abuse ......................................................................................................................... 11

   a) Refusal to Supply ............................................................................................................... 11

      i) Indispensability ............................................................................................................... 12

      ii) Secondary Market ......................................................................................................... 14

      iii) New Product .................................................................................................................. 15

      iv) Justification .................................................................................................................. 17

   b) Litigation as an Abuse of Dominance ................................................................................. 19

   c) Abusive Pricing ................................................................................................................ 21

      i) Case Study ...................................................................................................................... 21

      ii) Patent Ambush ............................................................................................................. 22

      iii) Determination of an Excessive Royalty ...................................................................... 26

IV. Patent Law as a Remedy ......................................................................................................... 29

1. Judicial Evolution in the US ...................................................................................................... 29

2. European Response ................................................................................................................ 30

   i) *NMR-Kontrastmittel* ..................................................................................................... 30

   ii) *Patentverwertungsgesellschaft* ................................................................................... 30

   iii) Principle of Proportionality .......................................................................................... 32
iv) Obstacles..................................................................................................................34

V. Conclusion..................................................................................................................36

Bibliography..................................................................................................................38

- Articles ..................................................................................................................38
- Books ......................................................................................................................41
- Jurisprudence..........................................................................................................42
- Other sources ..........................................................................................................43
# List of Abbreviations

<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Full Form</th>
</tr>
</thead>
<tbody>
<tr>
<td>BVerfG</td>
<td>Bundesverfassungsgericht</td>
</tr>
<tr>
<td>CFI</td>
<td>Court of First Instance</td>
</tr>
<tr>
<td>ECLR</td>
<td>European Competition Law Review</td>
</tr>
<tr>
<td>EIPR</td>
<td>European Intellectual Property Review</td>
</tr>
<tr>
<td>EU</td>
<td>European Union</td>
</tr>
<tr>
<td>ECJ</td>
<td>European Court of Justice</td>
</tr>
<tr>
<td>FRAND</td>
<td>Fair Reasonable and Non-Discriminatory</td>
</tr>
<tr>
<td>Geo Mason L Rev</td>
<td>George Mason Law Review</td>
</tr>
<tr>
<td>GSM</td>
<td>Global System for Mobile Communications</td>
</tr>
<tr>
<td>GRUR</td>
<td>Gewerblicher Rechtsschutz und Urheberecht</td>
</tr>
<tr>
<td>GRUR Int.</td>
<td>Gewerblicher Rechtsschutz und Urheberecht</td>
</tr>
<tr>
<td></td>
<td>Internationaler Teil</td>
</tr>
<tr>
<td>GRUR-RR</td>
<td>Gewerblicher Rechtsschutz und Urheberecht</td>
</tr>
<tr>
<td></td>
<td>Rechtssprechungs-Report</td>
</tr>
<tr>
<td>Harvard L Rev</td>
<td>Harvard Law Review</td>
</tr>
<tr>
<td>IIC</td>
<td>International Review of Intellectual Property and</td>
</tr>
<tr>
<td></td>
<td>Competition Law</td>
</tr>
<tr>
<td>IP</td>
<td>Intellectual Property</td>
</tr>
<tr>
<td>LG</td>
<td>Landgericht</td>
</tr>
<tr>
<td>MIT</td>
<td>Massachusetts Institute of Technology</td>
</tr>
<tr>
<td>MPI</td>
<td>Max-Planck-Institut</td>
</tr>
<tr>
<td>MPRA</td>
<td>Munich Personal RePEc Archive</td>
</tr>
<tr>
<td>NPE</td>
<td>Non-Practicing-Entities</td>
</tr>
<tr>
<td>OLG</td>
<td>Oberlandesgericht</td>
</tr>
<tr>
<td>R&amp;D</td>
<td>Research and Development</td>
</tr>
<tr>
<td>Abbreviation</td>
<td>Full Form</td>
</tr>
<tr>
<td>--------------</td>
<td>-----------------------------------------------</td>
</tr>
<tr>
<td>SSO</td>
<td>Standard Setting Organisation</td>
</tr>
<tr>
<td>Tex L Rev</td>
<td>Texas Law Review</td>
</tr>
<tr>
<td>TFEU</td>
<td>Treaty on the Functioning of the European Union</td>
</tr>
<tr>
<td>TILEC</td>
<td>Tilburg Law and Economics Center</td>
</tr>
<tr>
<td>US</td>
<td>United States</td>
</tr>
</tbody>
</table>
Patent Trolls in the Light of IP Rights and EU Competition Law

“You can never solve a problem on the level on which it was created.”
Albert Einstein

I. Introduction

The enforcement of patents through litigation by right holders whose only stock-in-trade is their IP-right portfolio has caused some controversy. The most aggressively litigious among them are described with the unflattering title of “patent trolls”.¹ The business model of patent trolls is generally characterized as “commercial organizations that acquire patents specifically with the view to bringing actions in the hope of making money by forcing settlements”.² Even though the European contribution to the legal debate of how to treat the activity of patent trolls under IP and EU Competition Law is still of minor importance compared to the rich controversy in the US-doctrine on that topic, there seems to be a trend to assume that patent trolls misuse the patent system through the strategic use of disputes and thereby obtaining “unusually high or even unreasonable royalty rates”.³ The economic importance of the trolling business is constantly increasing as litigation costs and settlement revenues on the global scale have surpassed one billion dollars.⁴ A similar tendency can be observed in regard to the increasing number of actions brought before courts to enforce the acquired rights by these companies. This paper will primarily focus on those kinds of commercial organisations which are exclusively pursuing the purchase, trade and enforcement of patents, without being engaged in any research and development or production activities themselves.

The licensing practice of patent owners who do not commercialise their inventions but invest into R&D, such as universities, research institutes and pure technology companies, is not

⁴ HEYERS, JOHANNES, supra note 3, footnote 7.
part of the analysis. They do not raise particular anticompetitive concerns as they provide valuable-know how via technology transfer and usually pursue a licensing practice that is based on the attempt to prevent lawsuits and diffuse their technologies. They can be best described as “patent generators”.

1. Terminology

Since the term patent troll implies already a generally negative perception of their business model and suggest a clear victimisation of the potential infringer it is time to overcome the emotionalisation of the academic debate on that topic. Therefore the neutral description as “Non-Practicing Entities” (NPE) serves the purpose of this analysis in a more precise and appropriate manner.

2. Characteristics of NPE

Several essential features of these NPEs can be identified. As mentioned above they do not carry out any research or development investments at their own expenses and risks. Neither do these types of patent owners provide end products or services but they acquire large patent portfolios from other companies who are active in either one or both of those fields.

The original patent owners are often bankrupt third parties or the acquisition takes place at patent actions. Their only source of revenue derives from the valorisation of their portfolio in the course of patent disputes. By the strategic use of injunctive relief measures in patent infringement actions against manufacturing companies they gain a considerable degree of bargaining power which they are on the next stage able to transform into royalty payments during the settlement negotiations. These royalties can amount up to a one hundred times higher rate compared to what the NPE paid for the patent in the first place.

The legal analysis of NPE will start with a brief introduction into the economic rationale and function of patents and the different strategies that innovative undertakings and Non-Practicing-Entities NPE pursue.
3. Possible Remedies

Focusing on the competitive effects and economic incentives of patent trolling the question arises whether or not some of those activities may constitute an abuse of rights that has a destabilizing impact on workable competition. How to evaluate the licensing practice of NPE under the framework of Art. 102 TFEU, is a crucial point of this analysis. In absence of any substantial case-law by the European Courts on the specific subject matter, it remains uncertain if the patent enforcement strategy pursued by NPEs is caught by the general prohibition of an abuse of a dominant position. After the assessment of the relevant market and discussion of the issues relating the definition of a dominant position with regard to NPEs, attention will be drawn towards three possible abuses: refusal to license, abusive litigation and excessive pricing.

Finally, the role of patent law and its governing principles comes at play concerning the handling of trolling under the current legal regime. Inspired by the eBay case of the U.S. Supreme Court\(^\text{11}\) and some recent cases on the national level the assessment will furthermore stress the possibility of a general principle of proportionality inherent to the enforcement of patents under the European IP right system.

II. Economic Background

A substantial analysis of the NPE business model cannot take place in a legalistic vacuum that does not take into account the economic assumptions behind the grant of patents in the IP right system. Therefore a brief overview of the economic implications serves as the foundation for the legal assessment.

1. Rewarding and Diffusion Function of Patents

The economic rationale behind the grant of a patent is twofold. Firstly, it seeks to reward investment in research and development and thereby aims at fostering innovation. The grant of legal exclusivity within a fixed time limit ensures the commercialisation of the patented idea, which would otherwise remain a public good. Public goods are non-rivalrous and non-excludable; information and ideas are in principle caught by those characteristics.\(^{12}\) Therefore they are confronted with the market failure that is described by the economic phenomenon of the “tragedy of the commons” meaning the decline of an open-access resource as a consequence of its overuse.\(^{13}\) The fencing off of the intangible subject matter of patents or IP rights in general protects the incorporated value of the information and promotes dynamic competition between innovators that would otherwise merely imitate.\(^{14}\) Secondly the creation of IP rights favours the diffusion of information that might otherwise be kept secret. This trade-off between the creation of economic incentives to innovate while establishing the accessibility of the protected ideas to the general public forms part of the public policy on which the patent system is based. Another fundamental pillar of the existing patent system derives from the fact that the time period during which exclusivity is granted is normally limited to 20 years. Afterwards any third party is generally free to use the innovation.

2. Systemic Inefficiencies

In the recent years an issue of the opposite nature compared to the insufficient incentive to provide for public goods has befallen the patent system. The number of patents covered by a single product has increased dramatically to the extent that the excessive grant of exclusivity has led to a so called “tragedy of the anticommons”. This expression addresses


the liability of a scarce resource to under use due to the fragmentation of owners holding rights of exclusion against each other and is likely to occur when legal rights are handed out to too many owners.  

While the public goods or commons face the issue of excessive use, the anticommon causes inefficiencies in consequence of excessive exclusion. The issue of excessive exclusionary rights can be observed on high technology markets, where each endproduct is often partly covered by an exorbitant number of patents. Mutual blocking potential can be resolved through the creation of patent pools and cross licensing agreements for competing companies or other rightholders which patent portfolios are more or less interdependent for their commercial activity. NPE are by the nature of their business model excluded from this logic of “mutual deterrence”, since they do not fear the blocking risk. Correlation between the NPE and the users occurs also to a lesser degree inasmuch as this category of owners typically do not market their technologies before implementation but wait for infringement of their protected technologies to take place.

Furthermore, the possibility to identify which patents and how many are actually necessary for the production of a certain product has become more and more difficult. The “patent thicket” describes the actual situation, where too many and overlapping patents exist that prevent potential users to gain a precise overview of the protected technologies and its owners. This systemic imperfection puts users under the constant risk of infringing existing patents unintentionally and favours the business model of NPE. As an effect of the intrinsic intransparencies created by the legal regime governing patents, an asymmetric information disadvantage for users can be observed and is strengthened by the fact that the possibility of forming the subject matter of an infringement claim is inherently excluded for NPE in advance. The patent thicket thus gives rise to a follow-up issue, namely that the manufacturer is “highly susceptible to holdup by the patentee”. Backed up with the menace of shutting down the production process of an entire product line through judicial action, the patentee can put enormous economic pressure on the infringing manufacturer. Subsequently, the owner of the patent is able to seek high payments in form of royalties in exchange of putting the proceedings before the patent courts to an end.

17 Ibid p. 125.
The patent thicket scenario is particularly widespread in highly innovative industries as information technology, telecommunications and microchips where one end product can touch hundreds or thousands of patents. The argument has been made that NPE systematically select successful companies in these industries and target them with the threat of injunctive relief.¹⁸

It remains unclear under which premises the strategic use of the imperfections of the existing patent system by the NPE can be interpreted as abusive. Limitations to their conduct may derive either from EU Competition Law or from the general principles of the rights of intellectual property itself.

III. Abuse of dominance

As Patent Law confers on the owner the right to exclude and thereby prevents competition in relation to the subject matter of the right, a constant tension between the grant of exclusive rights and the application of Competition Law cannot be ignored. However, the better view is that Competition Law and IP Law do not pursue fundamentally antagonistic aims. The legal exclusivity prevents competition on imitation for a certain period while creating economic incentives for competition on substitution at the same time. Intellectual property rights are therefore described as “restrictions in competition in order to promote Competition”. Their existence does not contradict the principle of undistorted competition, but is a decisive factor to maintain the dynamic of the competitive process. In the Schumpeterian sense, competition is understood as a “continuous fight for innovation that leads total welfare to a superior equilibrium”. Apart from that, the optimal realization of public welfare assumptions associated with the creation of IP rights, intrinsically depends on the maintenance of an economic system constituted on the basis of free competition.

Thus, a mutual correlation between these two systems has to be acknowledged. IP Law and Competition Law therefore do not find themselves in a permanent situation of conflicting interests, but should be understood as different regulatory tools that complete each other to achieve a common aim: dynamic competition based on the encouragement of innovation that inevitably results in a promotion of a highly competitive process itself in the long run. Hence, the adjustment of the interfaces between the corresponding legal regimes is a consequence of their economic rationales and a practical necessity.

1. NPE as Undertakings

Article 102 TFEU sets out limitations to the conduct of undertakings that find themselves in a dominant position on the relevant market. The concept of undertaking in the sense of

---

22 BERCOVITZ, ALBERTO, Patents, industrial property and free competition, in: Technology and Competition, supra note 1, 559-570, p. 560.
that provision is defined as “every entity engaged in an economic activity regardless of the legal status of the entity and the way in which it is financed”.23 The economic activity of NPE, the enforcement of their patent portfolio in order to generate revenue, is caught by that relatively broad concept.

2. Dominant Position
Below the threshold of dominance, European Competition Law does not impose any restrictions on the unilateral behaviour of undertakings. The finding of a dominant position is therefore constitutive for the application of Article 102. The necessary assessment cannot be performed *in abstracto* but has to reflect the actual economic situation on the relevant market and determine the temporal, geographical and product scope.

a) Relevant Market
In IP related cases the definition of the relevant market normally distinguishes between the upstream technology market, the licensing market and several downstream markets for products implementing the protected technology. Under EU competition law the definition of the relevant product market results from the application of the SSNIP test with due regard to demand-side substitution. That concept essentially asks whether up to what scope of the market a hypothetical monopoly supplier could profitably introduce a small but significant, non-transitory increase in price, which mainly depends on the existing alternatives for the demand side. In view of the fact that the conduct in question primarily effects the competitive situation of the implementers, one could argue in favour of expanding the relevant market to the licensing market for the protected technology and the product market for the application that infringes the scope of the patents. Nonetheless, market definition is “contextual” because it serves simply as a means of identifying the close competitive constrains faced by the accused undertaking in the particular circumstances.24

The existence of those constraints largely depends on the activity of competitors on the same market and the barriers to entry the relevant market that prevent potential competition. In the case of NPE the mentioned expansion of the relevant market cannot be upheld. Neither do they operate on the downstream market or the technology market nor

---

do they face competitive constraints in relation to the enforcement of their patents. They are not constrained in their licensing demands and no disciplining effect in consequence of a mutual blocking potential limits their bargaining power during the settlement. Thus the relevant market has to be defined as the licensing market for the acquired patents.

b) Degree of Market Power

The jurisprudence of the ECJ defines dominance as “a position of economic strength enjoyed by an undertaking which enables it to hinder the maintenance of effective competition on the relevant market by allowing it to behave to an appreciable extent independently of its competitors and customers and ultimately of consumers”. The principle of independence is crucial to the finding of dominance and relates to the degree of market power enjoyed by the undertaking. Normally the market power conferred to the holding of a patent is determined by the level of substitutability of the protected technology by competing technologies. Even though patents are occasionally referred to as “monopoly rights”, the mere existence of a patent is not automatically accompanied by an economic monopoly on the relevant market. A considerable number of patented technologies have never transferred any commercial success to their owner and refrained from ever being used or implemented into an actual product. To draw the conclusion that the legal monopoly inevitably leads to an economic one appears in so far misleading. The patent does not usually imply a significant degree of market power conferred to it; hence the existence of dominance in regard to the owner has to be assessed on case by case basis. It all depends on the particularly circumstances on the technology and the product market, although a certain interdependence between those two may not be excluded. In the case of NPE the definition of market power is a rather complicated task.

From a general perspective, the actual technologies protected by the acquired portfolio will usually face a number of potential substitutes and the manufacturers may theoretically design the end product around the portfolio without committing an infringement. Before

---

28 OHLY, supra note 8, p. 793.
the implementation the potential licensee might even still enjoy a considerable degree of buyer power himself in hypothetical negotiation position. NPE can only generate revenue from their IP rights if they are actually used and therefore the licensor might have an interest to offer favourable licensing terms to ensure that the licensee puts into practice a manufacturing process in correspondence to their technologies. A finding of dominance appears quite unlikely under these premises.\textsuperscript{30} However, purely focusing on the \textit{ex ante} situation, that is to say before the starting of infringement procedures, to identify the extent of substitutability would not accurately reflect the economic context, in which the conduct takes place. As a consequence an entire economic synopsis of the actual situation is required.

From the moment a manufacturer adapts his production process to the central specifications of the technologies in question, the switch to a substitute or non-infringing design of the produced good may no longer be economically feasible even though this possibility might have existed earlier on. On the contrary an \textit{ex post} analysis may very likely lead to the conclusion that the \textit{ex ante} substitutions are of no more relevance for the alleged infringer. At that stage, switching costs as a result of the previous investments may already amount to the threshold, where the manufacturer is in fact locked into the chosen technological specifications. The previous investments are sunk costs and the change to a non-infringing technological alternative may be extremely costly as well because of the time and resources consuming necessity to adapt the entire production process. The practical ability to switch may not only be reduced but it may be economically excluded. Even if the infringing product only touches components of the patents, the manufacturer will lose the entire value of the product and redesign would be necessary to avoid infringement.\textsuperscript{31} The path dependency for the manufacturer is considerably high in such a scenario. Thus, under the actual circumstances substitutability appears very low, while the market power conferred to the NPE has raised exponentially, since they do not fear competitive constraints. No economic pressure from the supply side or the demand is being put or is able to be put on NPE during the settlement negotiations, as long as the validity of the patents is not at play.

\textsuperscript{30} OHLY, \textit{supra} note 8, p. 794.

These factors ultimately allow the conclusion to be made that NPE find themselves in a dominant position at the moment the conduct in question, the enforcement of their portfolio, takes place, even though the outcome of the identical assessment performed purely under an *ex ante* perspective may have a substantively different result. Furthermore the finding is in line with the leading principle of the concept of dominance. The strategy pursued by NPE is based on the systemic imperfections of the existing patent system and the one-sided hold-up risk of injunctive relief with regard to the alleged infringers. It increases their bargaining power up to the extent that it serves as an adequate illustration of “economic independence” in the sense of Article 102. If the infringed technologies form part of an industry *wide de jure or de facto* standard a general assumption of a dominance enjoyed by the owner of the patents may even appears justified.

3. **Types of Abuse**

To attain or enjoy a dominant position is not *per se* held to be illegal under EU Competition Law. The application of Article 102 requires an undertaking to be engaged in an abusive conduct caught under the prohibition of that provision. Even though the wording of that Article contains specific examples for abusive practices, the list is not exhaustive. As a result the ECJ follows a teleological approach towards the underlying objective of the prohibition, namely the maintenance of effective competition. As a starting point two general types of abuses can be distinguished depending on their direction of competitive impact. Exclusionary abuses mainly affect the competitors of the dominant undertaking on the relevant market or secondary markets and tend to lead to a foreclosure of those markets. On the contrary exploitative abuses aim at the depending customers on the upstream or downstream market from the supply of the dominant firm which uses its economic strength to gain excessive or unfair (“that is supra-competitive”) benefits.\(^{32}\) Nevertheless a clear cut line between these two categories cannot be observed. Concerning the enforcement practice of NPE, abusive conducts broadly classified as refusal to supply, predatory litigation and excessive pricing may raise concern in respect of Article 102.

a) **Refusal to Supply**

The interaction between intellectual property rights and the prohibition of abuse of dominance leads one to consider under which conditions a dominant owner is required to

---

supply a third party with access, to avoid an abuse of his dominant position. With regard to
the practice of NPE, the existence of an abusive refusal to licence and the following
possibility of a compulsory license could function as a counterdefence against the
enforcement of the patents and the threat of injunctive relief.

The parameters of compulsory licenses under EU competition Law have been established
by the ECJ over time. Beginning the saga of IP related refusal to deal cases from *Volvo v. Veng*33 the Court established the general principle that the mere refusal of a dominant
owner does not constitute an exclusionary abuse. The exclusion is the very subject-matter
of the right. Thus, an additional element hast to turn the exercise of the right into an
abusive one. Concerning the exercise of intellectual property rights the ECJ stated at an
early stage of its case law that IP related conduct may not necessarily fall under the
prohibition of Article 102.34 It clearly derives from that finding that a competition law based
compulsory license would be rather the exception than the rule.

In *Magill*35 the ECJ specified the substance of these exceptional circumstances concerning a
refusal to license for the first time. The case turned on the question under what parameters
IP rights, in this particular case copyright, can be held to be classified as a essential facility.
The Court imposed rather restrictive conditions to grant compulsory access:

- the supply with the license is indispensable to the exercise of the activity in
question;36
- the refusal prevented the appearance of a new product which the potential licensor
did not offer and for which there was a potential consumer demand;37
- the refusal was not justified by objective considerations,38 and
- the refusal excluded all competition on the secondary market.39

i) Indispensability

Although *Bronner*40 was not an IP related case, it clarified the notion of indispensability.
According to the Court, access is only indispensable if the competitors cannot develop or

---

36 *Ibid* para 53.
37 *Ibid* para 54.
38 *Ibid* para 55.
market their product without access, although the decision suggests that the mere fact that the duplication of source of supply would be an unprofitable business strategy for the competitors is not a sufficient indicator to conclude indispensability.⁴¹ A commercially unreasonable duplication only comes into play for an “as efficient competitor”. Applied to patents, any technological substitute must be assessed on the assumption that comparable assets would be invested for its development, even if they are less advantageous for the requesting licensee.⁴² In IMS⁴³ the Magill test had to be applied to an industry-wide de facto standard that enjoyed copyright protection and was owned by the dominant supplier. Due to the networks effects and the adaptation of the demand-side to the features of the standard the Court found the refused access to be indispensable.⁴⁴ The CFI, having become the General Court with the entry into force of the Treaty of Lisbon, in Microsoft⁴⁵ widened the notion of indispensability by referring to the elimination of the economic validity of entry.⁴⁶

Similar considerations may be put forward concerning the indispensability of the access to the patent portfolio of the NPE for the manufacturing licensee. As explained above, the lock-in situation for the individual manufacturer after implementation of the protected technology is comparable to the lock-in to a de facto standard. The acquired patents may even form part of industry standard set and established by a recognized standard setting body. Nonetheless, the likelihood of excluding all competition may be put aside by absence of the NPE on the downstream market, which implies that they do not exercise their right to reserve the product market for their own benefit. In fact, by the nature of their business model they restrain themselves from acting as a competitor for the manufacturers. An elimination of all competition therefore seems unlikely.

Contrary to that, one has to bear in mind the level of “interconnection” between the upstream and the downstream market which the ECJ found to be a decisive element of the

⁴¹ Ibid para 45.
indispensability of the supply. 47 Due to the fact that the switching cost for the manufacturer may already prevent the change to a technological alternative or a non-infringing redesign of the product at the moment judicial proceedings have been initiated by NPE, the levels of interconnection and economic dependency from the potential licensor are then exponentially higher than before. No alternative source of supply is therefore capable of exerting a disciplining effect on NPE’s conduct once implementation has taken place. Moreover, the absence of a competing activity of NPE on the downstream market may in this particular case even result in a strengthening of their economic position with regard to the lack of a mutual blocking potential.

To conclude that the licensing supply in this situation is indispensable therefore seems to be nothing more than a full reflection of the characteristics of the economic context in which the conduct of NPE takes place. It is exactly that indispensability which NPE exploit for their royalty maximising purposes.

ii) Secondary Market

Another evolution of the jurisprudence concerns the two market requirement of the initial Magill test. As mentioned above, the refusal to provide access must be able to undermine competition on the secondary market. In IMS the Court adopted a wider definition of that market reserved to the right holder by stressing the existence of two different stages of production, whereby a sufficient secondary market can even be identified as a “potential or hypothetical” one. 48 It has been questioned how far the dismissal of a prerequisite of two actual distinctive markets by the inclusion of a potential or hypothetical secondary market could have a detrimental effect on innovation incentives. 49 In the context of NPE the discussion about the evolution towards a broader interpretation of the two market requirement is not as critical because two different stages of commercial activity in form of the licensing market as the upstream market and the product market as the downstream market can be identified separately. This is particularly true, given that the patent portfolio will most likely not cover the entire end product but only components of it that relate to an infringement. The fact that NPE do not leverage its dominance from the upstream market to the downstream market in order to reserve that market for themselves does not

47 Case C-418/01, IMS, para 45.
48 Case C-418/01, IMS, para 44-45.
contradict that finding as the ECJ in *IMS* did not establish leverage as an indispensable element of refusal to license.\(^{50}\)

Competition may be hindered on the product market in so far as the enforcement of the patent portfolio enables the NPE to prevent the manufacturers locked into the industry standard from pursuing their normal commercial activities. A confirmation of that assumption can be extracted from the conceptual and teleological framework of Article 102 itself. One has to bear in mind that the objective of that provision “[…] is to maintain undistorted competition in the common market and, in particular, to safeguard the competition that still exists”.\(^{51}\) The liability to undermine effective competition in the downstream market by the refusal to license depends strongly on the indispensability of access to the protected technologies. As noted above, access is vital to the continuation of the commercial activity of the manufacturer and if the patent forms part of a *de facto* or *de jure* standard the entire industry may rely on. Under such premises, the risk that the hold-up strategy performed by NPE may undermine effective competition in the downstream market should be considered as highly probable enough, even if they do not enter the downstream market or reserve it for themselves. This approach follows the recent jurisprudence in which the Court did not preclude an abusive refusal to license when competition is merely eliminated “gradually”.\(^{52}\)

**iii) New Product**

The new product criterion is a cumulative and crucial element of that test that serves to balance the effect of a potential compulsory license in regard to the underlying economic rationale precisely because the key attribute of the grant of a patent is the ability to prevent competition on imitation. In short the balancing test aims to scrutinize whether the obligation to supply promotes innovation and dynamic competition or instead tends to chill them. The definition of the new product in *IMS* was handled rather restrictively by the Court, which could be interpreted as a counterweighing reaction to the more flexible finding of a secondary market. The ECJ stressed the point, that the requesting company cannot limit itself to the duplication of the product or services offered by the right holder


\(^{52}\) Case T-201/04, *Microsoft*, para 428.
but has to offer new products in comparison to the owner for which there is a potential consumer demand.\textsuperscript{53} However, in Microsoft the Court of First Instance introduced more flexibility into the application of the new product rule as well. The treatment of that notion changed in so far as particular attention was directed by the CFI towards the aspect of protection of “follow-on innovation”. The Court emphasises that the notion of a new product cannot serve as the only parameter to determine potential consumer harm in consequence of the refusal to license because “such prejudice may arise where there is a limitation not only of production or markets, but also of the technical development.”\textsuperscript{54} The reference to innovation and the renunciation from of a purely formalistic view of the new product criterion shifts the balance between protection of the economic freedom of the owner and the stipulation of the competitive and innovative process clearly in favour of the latter. The Court also found the competitive advantage conferred by the IP right to be “artificial”.\textsuperscript{55}

Even though the jurisprudence on refusal to license has evolved, the new product test is still part of the assessment.\textsuperscript{56} The ability of the criterion to confer added value to the analysis has been doubted and it has been even argued that “the new product requirement does not make any sense”.\textsuperscript{57} Furthermore, the lowering of the intervention threshold has been perceived as an unappreciated “introduction of legal uncertainty and a reduction of practicability” for test.\textsuperscript{58} It has also been regretted that the focus on the prevention of the technical improvement ultimately would lead to the conclusion that every refusal to license by a dominant company would be caught under Art. 102 because there is “always a chance that compulsory access will lead to follow-on innovation”.\textsuperscript{59}

The latter view appears to a certain extent exaggerated. Every attempt to prevent follow-on innovation is not deemed to constitute an abusive refusal to license under the present stand of the case-law. Merely one that crosses the economic rationale underlying the grant

\textsuperscript{53} Case C-418/01, IMS, para 49.
\textsuperscript{54} Case T-201/04, Microsoft, para 647
\textsuperscript{55} Ibid., para 653.
\textsuperscript{56} JONES, ALISON/SUFIRN, BRENDA, supra note 50, p. 519.
\textsuperscript{58} EZRACHI, ARIEL, supra note 46, p. 99.
of the exclusive IP right and thus enables the dominant firm to benefit from an artificial advantage, which has not been achieved unilaterally by pure competition on the merits. In the case of Microsoft the artificial advantage can be qualified as the exclusion of competition on substitution on a secondary market (the market for work group server) for which the IP right protection against competition on imitation relating to the core product (the operating system market) has not been intended by the creation of the IP right regime itself. Even more so, since the IP protection against imitation of the core product was not reduced by the grant of the compulsory access.

The same line of arguments can be applied to NPE. The strategic use of the imperfection of the patent system (eg. patent thicket, no mutual blocking risk, no own R&D investment) artificially favours the bargaining position of NPE compared to the alleged infringers during the settlement. The threat of injunctive relieve also hampers the supply of consumers with products which are not provided by the right owner in consequence of his non-practicing strategy. As the ECJ stated in IMS the new product condition relates to the consideration that conflicting interests in refusal to license cases between IP protection and undistorted competition can only be solved in favour of the latter if the refusal “prevents the development of the secondary market to the detriment of consumers”.60 The license would thus not be ordered to protect the competitors but to protect consumers of the detrimental limitation of production in the sense of Art. 102 (b).61 Since NPE do not provide any product supply themselves the enforcement of their portfolio by the mean of injunctive relief puts them into the position to block the production of entire product lines for which not just a potential but an actual consumer demand exists. As a result a detrimental effect on consumers of the NPE’s conduct has to be acknowledged.

iv) Justification
As stressed in Microsoft the mere fact of holding IP rights is not itself an objective consideration justifying the refusal to license.62 Any other consequence would contradict the logic that the mere exercise of IP right is not abusive in itself. In IP related refusal to license scenarios the predominant consideration put forward by the right owner appears to be the reduction of its incentives to innovate that outweigh the imposition of a

60 Case C-418/01, IMS, para 48.
61 JONES, ALISON/SUFRIN, BRENDA, supra note 50, p. 507.
62 Case T-201/04, Microsoft, para 690.
requirement to supply. In the case of NPE the impact on the incentives to innovate of the concrete owner cannot play a decisive role simply because their business model relies precisely on the absence of any R&D efforts. In fact, what ought to be taken into account is a potential negative impact on the incentive to invest into the innovative efforts of third parties. It has been argued that NPE provide a valuable service to the patent community in enforcing their patent portfolio which might be too costly for the initial inventor and in providing financial liquidity to companies that have patent assets outside their core business.

On the other hand, patent hold-up pursued by NPE by the strategic use of injunctive relief cannot be ignored. A hold-up scenario consists of the extraction of additional value or concessions by one party from another party that is facilitated by an exceptional need based on the particular circumstances. In the case of the infringing manufacturer the exceptional need is caused by the circumstances that he is locked-in to the specific features of the implemented technologies due to his previous investments and the adaptation of the production process and product design. The magnitude of switching costs turns his investments therefore into sunk cost. The additional cost created by the extraction of exponential profits by the NPE in consequence of the settlement will most likely be passed on from the manufacturer to the consumer in the end. Not only from the perspective of the individual manufacturer but also from an overall welfare perspective the patent hold-up engaged by NPE causes inefficiencies and welfare losses.

An objective consideration justifying the refusal to license appears therefore not very convincing. This is even more true as the claim for injunctive relief is futile to achieve a protection against competition on imitation, since NPE are not active on the downstream market in any case. Certainly, NPE have a justified interest to generate revenue from their acquired but their compensation can be adequately achieved through the reward of damages if infringement procedures do finally succeed. The grant of injunctive relief on the other hand simply facilitates their overcompensation and is ultimately detrimental to

---

63 Case T-201/04, Microsoft, para 697-711.
consumers. A protection of innovation incentives cannot been put forward under those circumstances. From the non-practicing business model of the patent owner it therefore follows that overriding objective considerations in respect of the refusal to license cannot prevail without exception.

b) Litigation as an Abuse of Dominance

A guarantee of judicial protection of the legal monopoly over the patented technology is an integral pillar of the patent system as long as the patent is valid. The enforcement of the patent portfolio is therefore normally not deemed to be vexatious. Accordingly, a well founded reluctance can be observed to consider the initiation of enforcement procedures via litigation to be abusive. Still the possibility of abusive litigation is not entirely excluded. In *ITT Promedia* the Court of First Instance generally accepted that legal proceedings may constitute an abuse under certain circumstances. Stressing the importance of access to the Court as a fundamental right, the possibility of abusive litigation must be restricted to “*wholly exceptional circumstances*”. This self-restraint is another expression of the difficult balance between the undoubted right to legally protect legitimate interests and the need to avoid anti-competitive effects which raises similar issues of proportionality and objective justification in relation to the enforcement of IP rights. With respect to NPE these aspects cumulate into the same conduct, namely the judicial enforcement of their patent portfolio. In *ITT Promedia* the Court upheld the view of the Commission that litigation can only be deemed abusive if two cumulative conditions are fulfilled:

- The action cannot reasonably be considered to be an attempt to establish the rights of the undertaking concerned, and can therefore only serve to harass the opposite party and
- It is part of a plan whose goal is the elimination of competition.

While the first condition refers to the predatory nature of the action the second examines the competitive of the proceeding on the competitive structure. Applied together the two conditions extend the “special responsibility” of dominant undertakings to restrain themselves from hindering the maintenance of competition by threatening or commencing

---

68 Ibid para 60.
69 ROTH, PETER/ROSE, VIVIEN (ed), supra note 24, p. 983.
70 Case T-111/96, *ITT Promedia*, para 55.
of judicial actions they know to be “groundless”.71 Applied to the judicial infringement procedures brought into action by the NPE, a clear distinction has to been made between the claim for damages and the interim measures. While the main action serves to compensate the patent owner rightfully for the patent infringement, the interim measures, notably the claim for injunctive relief, has definitely a predatory element to it, given that they do not enhance the protection of R&D investments or any manufacturing activity engaged in and are a capable threat of shutting down the entire production of a certain product line. From that angle, they may appear groundless.

Still, the requirements set up by the Commission in *ITT Promedia*, without dissent of the CFI at the time, are strictly limited. Through that case, the concept of anticompetitive abuse of litigation has been introduced into the EU Competition Law landscape but no predatory litigation has been positively objected so far. Despite this lack of elaborated case-law before the EU courts on that subject-matter, some considerations may be put forward to justify that enforcement of interim measures in relation to the patent portfolio of NPE may fall recently fall under the framework anticompetitive litigation in the sense of Article 102.

At the time the decision in *ITT Promedia* was delivered, the ECJ generally pursued a stricter and more formalistic approach towards the enforcement of IP rights as the decision in *Volvo* and the restrictive handling of the conditions for compulsory access in *Magill* suggest. More than a decade later, a greater flexibility and due account given to the actual economic circumstances on the affected markets and the innovative merits characterise the recent case-law in *IMS* and *Microsoft*. As mentioned above, the issues with regard to refusal to IP related refusal to license cases are to a large extent comparable to those in question in an abusive litigation scenario. Accordingly, it may be further argued that the arguments mentioned above in relation to the objective justification and the likelihood of the elimination of competition may also promote the result, that the two requirements of predatory action are fulfilled by the conduct of NPE. This is even more true, as a different interpretation between refusal to deal and abusive litigation may lead to unappreciable inconsistency in the application of Article 102 to a situation, which simultaneously concerns both types of abuse and to a reduction of legal certainty. The possibility to declare the

---

enforcement of the NPE’s patents via interim measures an anticompetitive abuse of dominance in from of predatory litigation should not be discarded hastily.

c) Abusive Pricing

A distinction at what level excessive pricing can be qualified as an abuse of dominance is rather difficult to achieve. The finding of dominance itself already implies that the dominant company enjoys an appreciable degree of independence from a market price in a highly competitive market while setting its pricing policy. Since the dominant firm does not fear such competitive restraints, it remains unclear what should be exact reference point to compare a non-abusive price with an excessive one. The ECJ finds a price to be abusive if it bears no relation to the economic value of the product.\(^{72}\) A narrow interpretation of that judgment leads to the conclusion that the ECJ does not object to “every excessive pricing but only to what is unfair”\(^{73}\). Unfortunately the notion of the economic value is not able to add much precision to the analysis because the price charged by the dominant company does not reflect to the market price under the condition of effective competition. The identification of the economic value in such a hypothetical market environment is of a purely prognostic and uncertain character. Therefore it has been argued that the concept of unfair prices is “unworkable in relation to intellectual property” for relying on the untenable presumption that a “just” reward can be calculated for the innovative effort.\(^{74}\) Contrary to that, it has been advocated that the concept of the economic value and its two-stage test offer a “comprehensive analytical framework” for dealing with excessive pricing under the prohibition of Article 102.\(^{75}\)

i) Case Study

To introduce more substance to the debate whether NPE operate as efficient IP rights managers or as extortionists for excessive royalties in the sense of Article 102, some attention may be drawn to a case study on the ongoing proceedings between the German NPE IP Com and the Telecommunications devices manufacturer Nokia. IP Com acquired a large patent portfolio containing a significant number of essential patents for the GSM mobile communication standard from Bosch. After selling their telecommunications division Bosch was not commercially using the related patents anymore, even though the

---


initial R&D investments to create these innovations are estimated around 8 billion EUR.\textsuperscript{76} Bosch was not in a position to lucratively enforce these patents themselves against Nokia, because of the threat of counter lawsuits concerning overlapping portfolio on other markets and the fear to “lose Nokia as a customer in its core business activities”.\textsuperscript{77} IP Com then started to enforce the acquired rights against Nokia. The pending lawsuits will be decided either by the German courts or get settled via agreements between the disputing parties.

The circumstances in the IP Com case demonstrate that the “outsourcing” of IP right management to an NPE can be the only option for initial innovators in order to recoup some of their investments for patents they no longer have any other commercial use for. The royalties resulting from the infringement disputes are therefore a legitimate source of revenue for NPE, which are nothing more than private property traders in the field of IP rights. Clearly the business model of NPE cannot be regarded as constituting a \textit{per se} abuse. They are simply availing themselves a facility granted by the current legal regime relating to the enforcement of patents and aiming to maximise their profits as every company does. As the economic value of patents cannot be assessed in ignorance of that legal regime, one could see these systemic imperfections as part of the market environment that provokes high royalties. Favourable settlement agreements for NPE with unusually high fees may consequently amount in the price that is the actual market price in that situation. It could therefore be argued that the “use of the patent system to obtain optimal protection” cannot be regarded as abusive.\textsuperscript{78} However, the tactical use of the injunctive relieve may be seen as particularity in the case of NPE that inevitably leads to excessive royalty fees.\textsuperscript{79} An additional element justifying the intervention by Competition Law authorities may be identified in the hiding of essential patents by NPE.

\textbf{ii) Patent Ambush}

The term patent ambush is used when an owner of an IP right is engaged in a standard setting organisation (SSO) and does not disclose that he holds essential patents for the adoption of the standard. Most SSOs contractually oblige their members to disclose all

\textsuperscript{76} POHLMANN/OPITZ, \textit{supra} note 5, p. 10.
\textsuperscript{77} \textit{Ibid} p. 11.
\textsuperscript{79} POHLMANN/OPITZ, \textit{supra} note 5, p. 10.
essential patents in order to ensure a transparent standard setting process during which all the participants are mutually aware of all the protected technologies owned by them that may be incorporated into the industry standard. During the sessions of the technical committee within the SSO that decides on the industry standard, a non-disclosing participant can obtain information that enable him to modify his patent applications in a way that they cover the future standard and to insert his patents into the standard.80 A case that advanced the transatlantic debate on the role of Competition Law with regard to the strategy of patent ambushing concerns the proceedings against Rambus.

Rambus was involved in the in the adoption of an industry standard for the DRAM technology under the roof of JEDEC, an industry-wide SSO, and failed to disclose any information on the relevant patents it held. Rambus actively sought to perfect patent rights covering the technologies in question based on the information in gained during the meetings but left JEDEC half a year before the final standard was adopted. Still, after 5 years of participation in the technical committees, it was already certain that many of its technologies would have been included into the final version.81 Subsequently, after the implementation of the standard through the industry, Rambus initiated infringement claims against manufacturers of memory products using the JEDEC specifications. Worldwide sales of DRAM chips amounts to 32 billion US dollars and the chips are virtually used in all PCs.82

The Commission found that the unilateral patent ambush could constitute an abuse of dominance but settled with Rambus after the company agreed to lower the royalty rates for memory chips.83 The Commission concluded that if Rambus would have complied with the disclosure obligation JEDEC would have been likely to adopt a “patent-free” standard around Rambus portfolio.84 Accordingly, the charge of unreasonable royalty rates for the patent licensing has the potential to constitute an abuse of dominance.85

84 Ibid para 43.
Still, very few can be directly transferred from *Rambus* to the assessment of licensing practice of NPE under Article 102. Firstly, concealing the vital information for the standard and exploiting the standard setting process is a tactic that is only characteristic for patent ambush behaviour and is not feature of the business model of NPE, as the case study relating to IP Com reveals. They simply purchase patents and are not engaged in any standard setting themselves. Secondly, if essential patents are included in an industry standard adopted by an SSO, they will most likely form part an agreement to license to every interested licensee on FRAND (fair, reasonable and non-discriminatory) terms, because Art. 101 and 102 require FRAND licensing in the case of multilateral standard setting. Even if the essential patents are sold at a later stage, the FRAND obligation would be transferred as well. NPE as the new owner would still be bound by the FRAND commitment and non-compliance in consequence of charging unreasonable fees would accordingly lead to an infringement of Article 102. Finally, the Commission expressively stated that in its view the finding of an abuse is in a patent ambush scenario is “conditioned by the conduct that has necessarily influenced the standard process.” This may be an indication that without the additional element of the manipulation of the standard setting the Commission does not regard the mere claim of unreasonably high patent royalties as an abuse. The concealment serves as the causal link between the conduct and the abuse of monopoly power. Participation in an SSO or another form of multilateral standard setting therefore appears to be a precondition for the finding of excessive pricing in the sense of Article 102 in the given context. Such a particularity is missing in the case of NPE, if they are not bound by FRAND.

However, *Rambus* is a decision dealing in detail with the specific circumstances of patent ambush and the characteristics of NPE are distinctive enough not to apply a parallel reasoning but one that takes the differences and the similarities into account. Comparable to the phenomenon of patent ambush is the tactical use of the lock-in pressure. While in the case of patent ambush the entire industry is locked in to the captured standard, NPE exploit the fact that the infringing manufacturers are path dependant due to their previous

---

investments. The exploitative use of the economic supply dependency of the customers with regard to their licensing needs in both scenarios is alike.

Despite this divergence, an application of Article 102 may be even more indicated in the case of trolling than in the case of patent ambush. While patent ambush behaviour is a very unique issue that may be easily addressed via severe contractual damages for non-compliance imposed by the SSO, which diminish the profitability of the concealment strategy, a similar remedy is not at disposal in the former case. NPE on the contrary benefit from an intrinsic imperfection of the legal regime governing patents which puts the manufacturers in relation to NPE in a systematically inferior bargaining position from which they cannot unilaterally detach. The fees claimed by NPE occasionally even surpass the “entire value of the attacked company” and the patentee may only offer to license portfolio composed of necessary patents and “trash” patents that are of no actual use for the patentee.\(^{89}\)

One could therefore construe the hypothesis that if the Commission has already voted in favour of a Competition Law intervention concerning the very specific and extraordinary scenario of patent ambush opportunism, such an intervention may all the more be justified in the systemic issue of trolling opportunism. Admittedly, this \textit{a major ad minus} logic crosses the line of purely dogmatic aspects and also enters into the more general Competition Law policy dimension. In spite of this, the validity of the argument is not lessened by the broadening of the perspective. The effectiveness of the application of the European Competition Law rules to new forms of exploitative conduct that raise anticompetitive concerns with regard to dynamic competition is a serious issue. The maintenance of free and undistorted competition in highly innovative markets depends to a large extent to the capacity to adapt the application of these rules to the specific economic circumstances on these markets and to the arisen of new forms of exploitation of market power due to these particularities.

Lastly, one could argue that the telos of Competition Law should not shift from the protection of the competitive process and structure of the market to a general prevention of unfair trading practices because the enforcing authority does not bear the risk and potential cost for over-enforcement. The pricing policy of an undertaking is probably the most important of its business decisions, which is why regulatory interferences under Article 102 should remain exceptional.\textsuperscript{90} Notwithstanding the delicacy of an intervention into the royalty policy of a IP right owner, the ECJ has clearly stated that the exercise of an exclusive right “which gives rise to the fixing of prices at an unfair level would be regarded as an abuse of dominance”.\textsuperscript{91} Hence, the same reasoning should be applied to charge of unfair royalty rates in course of the enforcement of patents. The intervention in such a scenario goes beyond the prevention of unfair trading practices in general as the excessiveness threshold already implies that the abusive conduct in question affects the relevant market in a way that a distortion of the competitive process is presumed. Therefore the teleological interpretation of Article 102 is not expanded but rather respected.

\textbf{iii) Determination of an excessive royalty}

The definition of a fair price by any public authority cannot escape the truth that any intervention remains a second best option compared to what would have been the market price in absence of the abusive conduct. In relation to IP rights it is complicated to determine the actual costs for the creation of the innovation question. The revenues from a commercially successful technology usually do not only have to reward the creation of the individual innovation but also compensate for the many others failing R&D investments that did not lead to any commercial success.

In spite of these general difficulties to apply the concept of excessive pricing in IP related cases, the economic reasoning behind a monopoly rent resulting from the exclusionary right is the reward incentive for the engagement in activities with significant \textit{ex ante} risks.\textsuperscript{92} For NPE no R&D investments can be observed as a pioneer activity engaged in but the uncertainty about the profitability of the investment into third party innovations may be a

\textsuperscript{92} BISHOP, SIMON/WALKER, MIKE, \textit{The Economics of EC Competition Law}, 3\textsuperscript{rd} ed., SWEET&MAXWELL, London 2010, p. 238.
similarly significant risk. The purchase of patent portfolio including hundreds or thousands of patents is a speculative activity. No individual assessment with regard to the trivial or essential nature of every related technology will usually be performed in advance. The definition of the actual cost for each technology thus does not seem as a very useful tool to assess whether the charge of the corresponding royalties is deemed to be excessive. The comparison has to be based on different kind of information.

If customers are locked in to buying a higher-priced supply source, “the comparison between prices across different right holders may make sense”.93 In the case of NPE, the fees charged by owners of technological substitutes, meaning technologies the manufacturers would have been able to switch to before they implemented the protected specifications, for the infringing components could serve as benchmark comparator. If no such ex ante substitutes can be identified the decisive criterion for the definition of the economic value of the infringed patent has to refer to the innovative level of the protected technology. The examination has to relate to the investments carried out by the patent owner and the actual “qualitative and subjective characteristics” of the technology in question.94 To conduct such an analysis the consultation of a eternal and independent expert is inevitable. An expert opinion is also nothing more than a second best solution compared to the level of royalties that would be established if market forces could operate freely. Still, it does not follow from this assumption that recourse to this remedy is precluded. The Microsoft decision was in large parts based on external expertise on the innovative level of the interfaces in question. The reliance on economic or technical experts in order to attain an accurate impression of the economic context in high technology industries is built into a “more economic approach” of Competition Law to the characteristics of those markets.

This result may be perceived as regretful; still it remains a necessary consequence. Given the exponentially increased bargaining power for NPE through the threat of injunctive relief, one should not adhere the illusion that the public interest in the maintenance of dynamic competition would be better off without any Competition Law based intervention. The protection of intellectual property, as the protection of any property right, is neither

93 Ibid., p. 239.
94 POZDNAKOVA, ANNA, supra note 75, p. 138.
absolute nor an end it itself when the rationale of its grand is contradicted by unlimited exercise. This is even more true if the real detrimental effect of this conduct will be passed on to consumer who will have to pay for the excessive and unfair fees imposed on manufacturers. If consumer harm is really the new prevailing dogma of Competition Law policy an intervention on case by case basis against the excessive charge of royalties from NPE may well be indicated.
IV. Patent Law as a Remedy

After assessing the potential role of Competition Law intervention towards the licensing practice of NPE, the further step is to examine whether an inherent and general limit to the enforcement of their portfolio can be distilled from the patent system itself. In the field of patent law, the US jurisprudence shows a clear tendency that it is not willing to accept a policy that separates and isolates the question of IP protection from its underlying objectives.95

1. Judicial Evolution in the U.S.

With regard to permanent injunction, hardships between arguments of the disputing parties and the public interest in general are taken into account. In eBay96 the U.S. Supreme Court tried to strike a balance between the opposing interests and broke with the sacrosanct tradition to grant injunction for illegal patent infringement under any given circumstances. The subject matter of the dispute was the alleged infringement of the U.S. patent 5,845,265 through the “Buy it now” option on the online platform run by eBay.97 Notwithstanding the alleged infringement the applicant for injunctive relief would have to demonstrate that four cumulative factors are satisfied:

- It has suffered an irreparable injury;
- that remedies available at law, such as monetary damages, are inadequate to compensate for that injury;
- that, considering the balance of hardships between the plaintiff and the defendant, a remedy in equity is warranted;
- and that the public interest would not be disserved by a permanent injunction.98

If the plaintiff fails to meet the criteria, the enforcement of the infringed patents is reduced to the claim for damages including punitive damages. The approach followed by the Supreme Court thus introduces a degree of flexibility into the enforcement of IP rights without hollowing the core of the property right for the owner. In the aftermath of the landmark judgement, US courts were less likely to grant permanent injunction if the

---

98 Ibid 1839.
patentee was a NPE whereas this interim measure has almost always been granted if the patentee was also acting as a competitor in the market.  

2. European Response

Even though the judgement is based upon the common law concept of equity that is not part of the legal tradition in continental Europe, the willingness to balance the potential effects of permanent injunction against the gravity of the infringement can also be observed among European Courts concerned with enforcement claims by NPE. In order not to overstretched the scope of this paper, attention will exclusively be directed to an emerging trend in German Courts on the subject of tackling the enforcement of patents by NPE. It is still unclear if that practice will be upheld at Federal Court level but rigid formalism with regard to patent protection does not seem to prevail. Some of the endorsed considerations may also be fruitful for the European debate on that topic.

i) NMR-Kontrastmittel

The first decision that included the lacking commercialisation of the infringed patents into the balancing of interest with regarded to interim measures was drafted by the District Court of Düsseldorf in NMR-Kontrastmittel, where it held that owner of a patent who is simply engaged in licensing can be limited to pursue its claims via the main proceedings. The Court concluded that the interest of the owner can purely be indentified in the claim for a reasonable monetary reward for the use of its property, whereupon the claim for injunctive relieve was denied.

ii) Patentverwertungsgesellschaft

In a more recent decision of Patentverwertungsgesellschaft, the Higher Regional Court of Karlsruhe drew a clear distinction between manufacturing companies that use the IP rights they own and NPE which were described as “patent collecting societies”. The Court denied the grant of permanent injunction to the patent collecting society because it was not attempting to protect its own market position and did not have a significant economic interest in the actual prevention of the putting on the market for the devices covered by the patents. Quite the contrary, the genuine economic interest to pecuniary compensation of the patent collecting society would have to be the maintenance of the manufacturing in order to be rewarded higher damages in case the claims in the main proceedings were successful. As

99 SUBRAMANIAN, SUJITHA, supra note 3, p. 448.
100 LG (District Court) Düsseldorf, [2000] GRUR, 692 – NMR-Kontrastmittel.
101 Ibid p. 697.
102 OLG Karlsruhe (Higher Regional Court), [2010] GRUR-RR, 120 – Patentverwertungsgesellschaft.
a result of this line of arguments the Court held that the interest of the defendant, the alleged patent infringer, to be able to continue its commercial activity has to prevail over the claim for interim measures. The considerations of the Court impede NPE the multiplication of their bargaining power via injunctive relief and are considered as first step towards a general distinction between practicing and non-practicing undertakings with regard to infringement proceedings.103 Both decisions carefully scrutinize the real economic interest of NPE and do not rely on a purely formalistic view of the IP rights in question and their enforcement. As the US Supreme Court the German Courts are engaged into an analysis that balances the opposing interest in accordance to the particular circumstances with close regard to actual commercial activities of the parties. By definition a balancing test of such kind cannot be performed *in abstracto* by simply pointing to the existence and the validity of the intellectual property but has to enter into a factual assessment in depth.

To limit the judicial enforcement tools for NPE to claim for damages and to impede the grant of injunctive relief is a rather radical approach. If owners of are prevented from exercising their exclusivity rights in absolute terms, meaning regardless of the individual circumstances, the legal certainty attributed to that kind of property is undoubtedly reduced. The tendency among Courts to change from a purely protective property rule towards a more flexible liability rule escapes from the traditional dogma of exclusiveness. Still, it seems to correspond to the economic activity of NPE, to generate revenue from the use of their patents. In line with the mentioned decisions of the German Courts it is arguable that their interest is not weighed down in a substantial manner because their business model specifically relies on the non-practicing element that injunctive relief is not deemed to protect in the first place.

Nevertheless, patent law is designed to protect innovation and not products. It has been argued that the exclusion of injunction would decrease the incentive of NPE to invest in third party innovations and would lead to the absurdity that infringers “could keep the fruits of their indisputably unlawful conduct”.104 Placing an additional burden on investors,

---

by “restricting their possibilities to enforce their patents and use them as assets” is considered to be “unfair” and has been rejected as a possible response by this view.\textsuperscript{105}

Even if the view of the German Courts may be shared by other European Courts, the consequences of such reasoning remain at the national level. This may lead to the insupportable situation that the enforcement of different patents in the different Member States via interim measures for the same technology concerning the same infringing product may be granted in some jurisdictions while being denied in others. The consequence would be a significant difference of royalties between Member States, depending on the level of bargaining power for NPE that national judicial authorities are willing to uphold. The objective of the creation of an internal market may be stifled as a result. Anti-competitive effects in the form of competitive disadvantages for manufactures originating from Members States where injunctive relieve is granted compared to others where NPE are limited to claim for damages may arise. For the purpose of preventing such a fragmentation of patent enforcement principles between the different Member States, the question arises whether a uniform EU-wide solution of the issue exists and on what legal bases it could stand.

\textit{iii) Principle of Proportionality}

Based on Article 3(2) the Enforcement Directive of 2004\textsuperscript{106} Ohly argues in favour of a EU-wide principle of proportionality governing the judicial enforcement of patents as a means of fairness against overprotective barriers to legitimate trade and acting as a safeguard against disproportionate abuse of enforcement.\textsuperscript{107} While acknowledging the traditional dogma that the availability of injunctive relief is “the very hallmark” of a patent, Ohly recognizes that the shift from horizontal to vertical innovation and the increasing lack of transparency of the patent system prevent even circumspect traders to avoid an infringement.\textsuperscript{108} Yet, although the standard of care for patent infringement is traditionally handled strictly, the potential threat deriving from the strategic use of permanent injunction may be considered as excessive. The claim of its disproportionate use may serve

\textsuperscript{105}Ibid., p. 364.
\textsuperscript{107}OHLY, ANSGAR, Three principles of European IP enforcement law: effectiveness, proportionality, dissuasiveness, in Technology and Competition, supra note 22, 257-274, p.258.
\textsuperscript{108}Ibid, p. 260-261.
as a defence, particularly in cases where the patented invention is deemed to cover only a small component of the infringing product.109

Following the civil law principle that every party has to prove what is beneficial for its claims, the burden of proof with respect of the alleged disproportionality would have to be beard by the infringer. Ohly’s reasoning is clearly developed before the background of the nature of the infringement claims brought forward by NPE. According to him, non-producing and non-research entities do not need to have recourse to injunction as defensive perimeters around their business activities and the limitation to monetary compensation in lieu of injunction bears little risk of treating them “too harshly”.110 Subsequently, courts should taken the non-competing characteristic of NPE into account and should also address the proximity of the infringing item to the patented invention instead of formalistically granting injunction for every infringement. Ohly stresses the point that the effects of interim measures under patent law may be far more severe than under the other IP right regimes because the infringer may be forced to stop the entire production altogether whilst a injunction granted under trade mark law still enables the infringer to market the product under a non-infringing trademark.111 As a consequence, injunction can be used as a strategic tool in settlement negotiations for obtaining a royalty level that does not correspond to the actual innovative and economic value of the protected technology.

This view is not undisputed. Subramanian argues that the threat of injunction is not merely the source of additional bargaining power for NPE but simply their only source of bargaining power and a dilution of that threat would enable infringers to have a free run on their unlawful conduct.112 Golden does not opt in favour of limiting injunctive relief for categories of patent owners generally, but suggests the application of a rebuttable presumption to all patent holders and that the denial of an injunction should be restricted to the exception that it would cause “undue hardship” on the alleged infringer.113 Compared to the proportionality proposal of Ohly, Golden’s approach is more restrictive.

---

109 Ibid., p. 265.
110 Ibid., p. 267.
111 Ibid., p. 270.
112 SUBRAMANIAN, SUJITHA, supra note 3, p. 450.
113 GOLDEN, JOHN, supra note 9, p. 2148-2149.
and appears to be limited to extremely rare circumstances. However, both the proportionality rule and the narrowing to an undue hardship rely on a case by case analysis that is based on vague terminology.

Although free riding should be prevented to the largest extent possible, the view of Ohly appears more convincing from a personal point of view compared to the formalism of Subramanian and the rigour of Golden due to one predominant consideration. Patent law as every property law is based on a general welfare surplus rationale that justifies its creation. NPE, even if they are limited to claim for infringement damages, still get compensated for their initial investments in third party innovation. The same cannot be said for the additional cost passed on consumers that finally have to pay the price for the lock-in bonus extracted by NPE. In that sense no creation of value or a consumer surplus can be observed with respect to NPE. Ohly describes this phenomenon as a “false positive”.\(^ {114}\) This imbalance from a general welfare perspective favours the proportionality approach to be introduced into patent law policy. The inclusion of the public interest into the balancing of the opposing interest between plaintiff and defendant has also been undertaken by the U.S. Supreme Court in eBay and reveals that intellectual property protection is neither absolute nor an isolated issue but has to be put into a broader context. The U.S. and the German courts have shown that judicial authorities are generally capable and suited to include those considerations into their assessment on a case by case basis.

**iv) Obstacles**

Still another legal barrier may hinder the practical validity of the mentioned considerations. While a uniform approach originating from patent law itself towards the enforcement of IP rights with regard to NPE appears advantageous and desirable from a long-term perspective, the fact cannot be denied that the conception of the legal patent regime and the corresponding enforcement remains a national competence. Even if the principle of proportionality forms a integral part of the general principles governing the application of EU law, the attempt taken by Ohly stretches the boundaries of the application of that principle to the extent that it contradicts with another principle of EU law: the explicit attribution of competences to the European Union. An extensive and uniform

---

\(^{114}\) OHLY, ANSGAR, *supra* note 107, p. 270.
interpretation of the principle of proportionality concerning patent enforcement may face constitutional constraints.

As the German Constitutional Court stated in its widely debated Lisbon judgement\textsuperscript{115} the transfer of competence from the national level to the European level based on an inherent competent attributed to the EU (“Kompetenz-Kompetenz”) is undoubtedly prohibited by the German Basic Law. The reservation expressed by German Constitutional Court vis-à-vis a concealed expansion of EU competences results in the caveat of a potential \textit{ultra vires} control that the German Constitutional Court declares itself competent to perform. In order to prevent a confrontation with the national constitutional courts, the ECJ may hesitate to put a uniform disproportionality defence against permanent injunction forward that would be based on the proportionality principle of EU law. Thus, as convincing as the approach presented by Ohly may sound, its actual practical implementation appears uncertain.

How difficult it is to reform and to uniform the European patent law system, has been recently illustrated by the ECJ in its opinion on the creation of a European and Community Patent Court where it found the draft agreement to be incompatible with EU law.\textsuperscript{116} It its opinion the ECJ also endorses the division of competences between the European and national courts with regard to patent disputes under the current state of the Treaties. The ECJ clearly states that it “[...]has no jurisdiction to rule on direct actions between individuals in the fields of patents, since that jurisdiction is held by the courts of the Member States [...]”.\textsuperscript{117} A common approach on how to address the patent enforcement of NPE ant the creation of a uniform patent law remedy thus seems to be rather academic wishful thinking than a realistic short-term perspective. With regard to the transparency need for implementing manufacturers and with respect to the underlying rationale of intellectual property t promote dynamic innovation, the \textit{status quo} of the European patent system remains highly unsatisfactory.

\textsuperscript{115} BVerfG (Federal Constitutional Court) decision of 30 June 2009, BVerfGE, 123, 267, - Lissabon.
\textsuperscript{116} Opinion 1/09 of 8 March 2011.
\textsuperscript{117} \textit{Ibid} para. 80.
V. Conclusion

The legal analysis of the trolling phenomenon echoes the complexity of the issue. Neither of the presented remedies appears optimal. Given the urgency of the topic and the likelihood that the speed of technical progress and the boosting number of patents essential for the manufacturing of a single end product in our modern economies may provoke a parallel increase in unintentional infringements, the absence of an EU-wide reaction is not a sustainable response. That is not to say that the business model of NPE is to be condemned because the need to outsource IP right management is well served by them. Still, no added value in granting them injunctive relief seems to be noticed while an overriding public interest to deny such measures seems rather apparent.

One may regret the increasing tendency of competition law intervention as a corrective tool for systemic failures deriving from other legal regimes. In its current state, Competition Law is not designed to micromanage every market imperfection that arises and that may be considered as unfair. A sound Competition Law Policy and its enforcement should be aware of its conceptual limits. It should generally refrain from attempting to compensate for every shortcoming of the legal regime governing patents. In spite of these well grounded concerns, the necessity of a Competition Law intervention remains in exceptional circumstances as a last resort. The exploitation of manufacturers and consumers through the excessive use of the threat of injunction by NPE, is inherently promoted by the current patent system to an extent that cannot be qualified as a minor market imperfection but rather as a general market failure that is detrimental for workable competition and to consumer benefit. Few efficiency-sponsoring assumptions can be drawn from the described conduct of NPE. They are simply maximizing the benefits of the current legal regime to the detriment of manufacturers and consumers without creating any substantial economic or social value.

Compared to a general distinction between practicing and non-practicing right holders under patent law, one main advantage of the application of the EU Competition Law rules on trolling should not be underestimated. The intervention of Competition Authorities based on the abuse of dominance remains a punctual corrective measure towards overreaching effects of the patent system. In the event of proceedings under Article 102, a
full analysis of the actual circumstances of the individual case will be performed that has to take all the pro- and anticompetitive effects into consideration. The application of these rules appears to be handled flexible and accurate enough, to safeguard an appropriate protection of the opposing interest of the disputing parties, consumers and economic welfare. This may but must not result in an individual exclusion of injunctive relief, prescribed by Article 102, depending on the contingent facts of the case.

Even if the reform of the patent system may be part of the answer to those challenges, for example my means of an enhancement of quality patents granted, some anticompetitive side-effects are inherent to patent law and therefore will never be entirely avoidable.\textsuperscript{118} Patent Law is ultimately part of Competition Law in its widest sense and certain indispensable limitations for patent protection and its enforcement deriving from Competition Law are needed to strike an appropriate balance between those regimes in order to protect workable competition and foster innovation. The presented approach tries to establish the balance between all the interests at play and assures in addition a reasonable monetary compensation for NPE in order to pursue their generally legitimate business model. Investment in third party innovation and commercial management of IP rights in order to generate revenues are generally of no specific concern from a Competition Law perspective. The travesty of patent enforcement through the excessive exploitation of artificial bargaining power is an entirely different matter.

\textsuperscript{118} HILTY, RETO, The role of patent quality in Europe, in: Technology and Competition, supra note 1, 91-121, p.121.
Bibliography

Articles


JONES, MIRANDA, “Permanent injunction, a remedy by any other name is patently not the same: how eBay v MerkExchange affects the patent right of non-practicing entities”, (2007) 14(4) George Mason Law Review, 1035


PEUKERT, ANDREAS, “Intellectual Property as an End in Itself?”, (2011) 33 (2) EIPR, 67


STAUDER, DIETER & LUGINBUEHL, STEFAN, “Patent invalidity proceedings and patent jurisdiction in Germany: Of myths and other “half-truths” and how to deal with them”, in: Technology and Competition, Contributions in Honour of Hanns Ullrich, Drexel, Josef/Hilty, Reto/Boy, Laurence/Godt, Crisine/Remiche, Bernard (eds.), larcier, Brussels 2009, 293


**Books**


DABBAH, MAHER, EC and UK Competition Law, Cambridge University Press, Cambridge 2004


TAPIA, CLAUDIA, Industrial Property Rights, Technical Standards and Licensing Practices (FRAND) in the Telecommunications Industry, Carl Heymanns Verlag, Cologne 2010


**Jurisprudence**

**European Court of Justice**


Opinion 1/09 of 8 March 2011

**Court of First Instance (General Court since the entry into force of the Treaty of Lisbon)**


**Commission**


**Non-EU Case Law**


BVerfG (Federal Constitutional Court) decision of 30 June 2009, BVerfGE, 123, 267, - *Lissabon*

LG (District Court) Düsseldorf, [2000] *GRUR*, 692 – *NMR-Kontrastmittel*
OLG Karlsruhe (Higher Regional Court), [2010] GRUR-RR, 120 – Patentverwertungsgesellschaft

Other sources


About Mayer Brown

Mayer Brown is a leading global law firm with offices in major cities across the Americas, Asia and Europe. Our presence in the world’s leading markets enables us to offer clients access to local market knowledge combined with global reach.

We are noted for our commitment to client service and our ability to assist clients with their most complex and demanding legal and business challenges worldwide. We serve many of the world’s largest companies, including a significant proportion of the Fortune 100, FTSE 100, DAX and Hang Seng Index companies and more than half of the world’s largest banks. We provide legal services in areas such as banking and finance; corporate and securities; litigation and dispute resolution; antitrust and competition; U.S. Supreme Court and appellate matters; employment and benefits; environmental; financial services regulatory & enforcement; government and global trade; intellectual property; real estate; tax; restructuring, bankruptcy and insolvency; and wealth management.

OFFICE LOCATIONS

AMERICAS
• Charlotte
• Chicago
• Houston
• Los Angeles
• New York
• Palo Alto
• São Paulo
• Washington DC

ASIA
• Bangkok
• Beijing
• Guangzhou
• Hanoi
• Hồ Chí Minh City
• Hong Kong
• Shanghai

EUROPE
• Berlin
• Brussels
• Cologne
• Frankfurt
• London
• Paris

TAUIL & CHEQUER ADVOGADOS
in association with Mayer Brown LLP
• São Paulo
• Rio de Janeiro

ALLIANCE LAW FIRMS
• Spain, Ramón & Cajal
• Italy and Eastern Europe, Tonucci & Partners

Please visit www.mayerbrown.com for comprehensive contact information for all Mayer Brown offices.

Mayer Brown is a global legal services organization comprising legal practices that are separate entities (the Mayer Brown Practices). The Mayer Brown Practices are: Mayer Brown LLP, a limited liability partnership established in the United States; Mayer Brown International LLP, a limited liability partnership (regulated by the Solicitors Regulation Authority and registered in England and Wales number OC 303359); Mayer Brown JSM, a Hong Kong partnership, and its associated entities in Asia; and Tauil & Chequer Advogados, a Brazilian law partnership with which Mayer Brown is associated. “Mayer Brown” and the Mayer Brown logo are the trademarks of the Mayer Brown Practices in their respective jurisdictions.

This publication provides information and comments on legal issues and developments of interest to our clients and friends. The foregoing is not a comprehensive treatment of the subject matter covered and is not intended to provide legal advice. Readers should seek legal advice before taking any action with respect to the matters discussed herein.

© 2011. The Mayer Brown Practices. All rights reserved.