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The assessment of patent pools under antitrust law

A comparative analysis

Abstract: Patent pooling is used mainly in the electronics sector, making possible joint licensing of patents in order to create faster development at lower costs. Patent pools also serve the purpose of unlocking blocking positions among patent holders. Benefits of patent pooling are thus vast, yet these arrangements can also cause detriment to competition. The anti-competitive approach on patent pooling held by the EU Commission is in some fundamental ways different from the one held by U.S antitrust authorities. I will present these differences and suggest a practice in order to erase some of these differences in order to benefit technological development.

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Summary

This thesis identifies the differences in the antitrust regulations concerning patent pooling within the EU and the U.S. Patent pooling enables firms to jointly licence their patents as a package, gathering patents that are necessary in order to produce a certain product. Patent pooling allows faster development at lower costs, since firms can attain all necessary patents through one single license. Patent pools also serve the purpose of unlocking blocking positions among patent holders; such blockages can otherwise hinder further development due to the risk of infringing others' patents.

The European Commission and the U.S antitrust authorities have established their positions concerning patents and licensing of such rights in written guidelines. The approach on patent pooling held by the European Commission is, however, in several ways different from the approach held by U.S antitrust authorities (the FTC and the DoJ).

In February next year the current TTBER (block exemption regulation concerning technology transfer agreements) and the Guidelines will expire, the Commission therefore has drafted a new regulation as well as new Guidelines. Patent pooling has up until now, and will continuously be, excluded from block exemption, making the TTBER non-applicable on pooling arrangements. The approach on patent pools held by the Commission is therefore clarified only in the Guidelines, identifying the anticompetitive issues of patent pooling and establishing as a general rule that inclusion of substitutable patents in pools is regarded as anti-competitive. The general rule and the Commissions approach on substitute patents is the most prominent difference to the approach held by the FC and the DoJ. The drafted Guidelines are in some ways more lenient, but the approach held by the U.S antitrust authorities is still in many ways different, but the general rule still applies. This difference is also identified and questioned by the American Bar Association.

In my analysis I will, based on the above-identified differences, suggest an effects based assessment of inclusion of substitute patents, with the intention of benefiting patent pooling within the European Union.

Sammanfattning

Denna uppsats behandlar de konkurrensrättsliga skillnaderna i EU-rätt och amerikans rätt rörande patentpooler. Genom patentpooler ges företag möjlighet att gemensamt samla sina patent inom ett visst tekniskt område och tillsammans licensera dem. Genom poolning av patent ökar möjligheterna för snabb utveckling samtidigt som licenskostnaderna minskar då samtliga nödvändiga patent blir tillgängliga genom en enda licens. Vidare är också patentpooler en möjlighet för att förhindra låsningar patentinnehavare emellan, något som annars riskerar att förhindra vidareutveckling inom olika tekniska områden.

Både Kommissionen och de amerikanska konkurrensrättsmyndigheterna har förtydligat sina respektive förhållningssätt till patentpooler och andra licensavtal i Guidelines. Av dessa framgår att EU Kommissionen förhåller sig till poolning av patenträttigheter på ett sätt som på många sätt skiljer sig från det sätt som det amerikanska FTC och DoJ tolkar de konkurrensrättsliga problemen rörande dessa avtal.

I februari nästa år kommer den nuvarande Guidelines:en tillsammans med gruppundantagsförordningen TTBER att förfalla, Kommissionen har därför författat ett utkast som ska ersätta dessa. Patentpooler kommer fortsatt att uteslutas från möjligheten att gruppundantags, då dessa avtal är exkluderande från tillämpningen av TTBER både i den nuvarande förordningen och i utkastet. Däremot behandlas patent pooler i Guidelines:en, där de konkurrensrättsliga riskerna med dessa avtal tydligt identifieras. Vidare fastslås även huvudregeln att utbytbara patent inte får inkluderas i pooler, då detta antas skada konkurrensen. Denna huvudregel och Kommissionens förhållningssätt till inkluderingen av utbytbara patent i pooler utgör den största skillnaden mellan europarättslig reglering och amerikansk. Denna skillnad identifieras och problematiseras även av det amerikanska advokatsamfundet.

I min analys föreslår jag en renodlad effektanalys av inkluderingen av utbytbara patent i pooler. Detta för att möjliggöra en ökad användning av patentpooler inom EU.

Preface

I am deeply grateful to all my friends and family for their many words of encouragement during the process of writing this. Mostly I am grateful for their endless patience. A warm thank you to my colleagues at the Swedish Competition Authority for their help and belief in me, to the faculty of Law for four and a half wonderful years, to Malmö Nation for all the love, the moments of joy and the challenges, to Kristian for patience, kind words and proof-reading.

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Abbreviations

| | |
|----------------|---|
| DoJ | Department of Justice |
| FTC | Federal Trade Commission |
| EU | European Union |
| IPR | Intellectual Property Right |
| TFEU | Treaty of the Functioning of the European Union |
| TTBER | Technology Transfer Block Exemption Regulation |
| U.S | United States of America |
| U.S Guidelines | Antitrust Guidelines for the Licensing of Intellectual Property |

1 Introduction

1.1 Background

The mutual point of view, in both the US and the European Union, regarding Intellectual property rights and Competition law and the possible conflict of interest between the two, is that they are not in principle regarded as conflicting interests but on the contrary regarded as serving the mutual purpose of enhancing sound competition, promoting innovation and protecting consumers. Despite that, there are occurrences when these two interests serve their purposes by protecting conflicting interest. Intellectual property law on one hand protecting the exclusive rights held by a company with an intellectual property and on the other hand, the conflicting interests of other companies wishing to produce competing products as well as consumers wanting a range of products at low prices. As a result, competition authorities are put in a position of trying to assess the two, apparently very separate, interests.

Patent pools are considered arrangements with many pro-competitive effects, such as limiting transaction costs by reducing costly litigations between parties with conflicting patents, reducing the royalty cost for licensing of several patents as well as creating opportunities for technological development and research. Further, patent pools can hinder lock-ups; when companies are hindered from using their patents to their full extent due to blocking patents.

Yet, these agreements also imply risks on competition that might have negative effect on the consumers. Patent pooling might under certain circumstances become anti-competitive by causing price fixing and foreclosing of actors outside the pool, this effect is most being likely if licensed patents within the pool are substitutable. Other possible issues are vertical restrictions as well as exclusivity clauses in the pools licensing agreements, limiting parties right to license its patents outside the pool.

Currently, there are large differences in the assessment of the possible Anti-competitive risks inherent in patent pooling, and the handling of these under EU law and U.S law. Many questions can be raised regarding the grounds for these differences; can they be explained by a different structure and focus in U.S antitrust policy compared to the EU's antitrust policy. The Commission implies this in its' analysis of antitrust risks in licensing agreement being more of a judicial analysis, whereas the U.S antitrust

authorities¹ applying a more effects based, economical analysis to these agreements.²

Within the EU, licensing agreements are block exempted from application of article 101.1 TFEU³ under the Technology Transfer Block Exemption Regulation (TTBER), EC 772/2004. The assessment of licensing agreements is described thoroughly in the Commission's Guidelines, following the regulation. The Guidelines setting out the principles for its application, also pointing out the potential risks on competition in these agreements.

The regulation excludes patent pools from its' scope, resulting in patent-pools not being presumed as fulfilling the efficiency assessment in art 101.3 TFEU. The American Bar Association has questioned such exclusion of these agreements from the Block Exemption,⁴ something that implies a far more restrictive approach to patent pooling within the EU than the one held by the U.S Antitrust Agencies.

Additionally it has recently been suggested that both the regulations and the Guidelines will be updated in 2014, nevertheless the Commission's stringent approach to patent pooling is still noticeable in the current draft for the new regulation.

1.2 Purpose

In order to fully understand the circumstances of the differences in EU and U.S Antitrust Policy regarding patent pools, I will analyse these differences and how they are apparent in current legislation. Further it is relevant due to the suggested changes of the EU regulations on the subject to highlight the differences and question whether the EU policy could benefit from a less restrictive approach. Based on this examination I want to draw conclusions applicable to further EU development.

The purpose of this thesis is to compare and clarify the EU and U.S position on patent-pools and the reasons for the different approaches in order to suggest a best practice for the EU.

¹ The U.S. Department of Justice and the Federal Trade Commission

² Gilbert, R, *February (2004)*, p. 2-3.

³ The Treaty on the Functioning of the European Union, OJ [2012] C-326/47.

⁴ Joint comments of the American Bar Association, (2002)

1.3 Method and material

In this thesis I will utilize both a legal-dogmatic methodology and a comparative analysis in order to establish the current differences in the EU and U.S antitrust policies regarding patent pooling.

Initially, using a legal-dogmatic methodology, I will clarify the state of law within antitrust policy regarding patent pooling in the separate jurisdictions. Firstly investigating the current regulations and case law within EU law, followed by a similar description of U.S antitrust law on the area.

Secondly, I will apply a comparative analysis on the two separate approaches in anti-trust law regarding patent pooling. My comparative analysis will take on a legal-economic perspective, highlighting the different views held by the European Commission in comparison with the one held by the FTC, meanwhile analysing the actual differences in law and in practise.

In 2014, the current regulation regarding licensing of technology (TTBER) will expire. Due to this, the commission has recently drafted a new TTBER, proposing a change in the approach on patent pools, suggesting a soft safe harbour for such agreements. However, the suggested approach is far less lenient than US policy, having resulted in comments and suggestions from the American Bar Association. An other current event, to be further brought up in the analysis, is the debated need for patent pools within biotechnology and pharmaceutical industry, the current anti-trust approach on patent pools hinders pooling within this sector, something which is regarded a prominent problem in the current regulation.

1.4 Disposition

This thesis will be divided into two main parts, in order to first investigate the state of law within EU antitrust law on the area of patent pools followed by the same investigation in terms of U.S antitrust law. Besides these two main parts, it will be lead off with a descriptive chapter regarding patent pools and its main functions. In order to initiate my conclusion, I will give a short description of the current situation of patent pools i modern technology by describing the need for patent pools in biotechnology. Finally the differences identified in the respective legal system will be contrasted in

the analysis, in order to suggest a practice for EU antitrust regulation in terms of patent pools.

1.5 Limitations

I will only focus on one of four Intellectual Property Rights; Patents, and the pooling of such rights. I have thus chosen not to cover Trade Marks, Copyrights or Designs. I have chosen to focus only on patents since these are covered by the Technology Transfer Regulations, the regulation excludes other IPRs as not covering the rights to licence technology.

Further I have chosen only to concentrate on patent pools, my first thought being to include also cross licenses. But after some time of research I realized that covering both would be a to large an area, and the two different types of licensing are not treated in the same manner under the TTBER. Therefore I decided only to include patent pools.

Additionally, patent pools are viewed as being beneficial and well suited for technologies where there is a defined standard. Even if there, as described in article 211 in the Technology Transfer Guidelines, “is no inherent link between technology pools and standards”, technology pools still often support an industry standard. The industry standard facilitates the assessment of whether a patent is essential, something that forms the ground for determination what patents to include in the pool. However I will touch upon industry standards in this thesis but have chosen to excluded a further definition of the term since this is too wide an area to examine, and the definition in itself in not of importance for the direction that I am aiming for in this thesis.⁵

⁵ Kulbaski, J, (2002), 4-5.

2 Patent Pools

2.1 Patents and technological development

A patent entitles an inventor the right to exclusively gain from his investments in technological development. The patent holder can for a certain period of time exclude others from using the patented technology and may also do with it whatever he wishes. The possibility to patent an invention is in much an incentive for investments in research and technological development.⁶ The protection is however national, meaning that an exclusive right covered by a patent in one state does not protect the patent holder from infringements in other states, the same within the EU. (See. 3.1.1.)

A patent gives a company an exclusive right to the particular item covered by the patent. However, this exclusivity does not entitle the patent holder the right to use the patented item, but only the right to exclude others from using it.⁷

An inventor of an improvement to existing technology, being granted patent protection for his invention, will not have the right to use it without a license to use the already existing technology. This is the case if use of the improvement technology is reliant also on the use of the existing technology. Patent holders can under such circumstances block possible improvement of technology by refusing licensing.⁸

2.2 Blocking patents

Creation of new products is dependent on fast technological development, resulting in an increasing number of patents being issued. The infringement on one or many existing patents during the product development process is therefore not unlikely. Technological development is in much dependent on already existing inventions. Such activities are, as previously mentioned, dependent on the granting of licenses from each patent owner having earlier contributed to the development of the specific technology.

⁶ Korah, V, (2006), p.2.

⁷ Raymond D.G, (2001), p. 198.

⁸ Korah, V, (2006) p. 1.

The current situation is one with many blocking patents, limiting the possibility for further development as well as the possibility to obtain a license to use a technology while not infringing others. Patented rights are often closely linked and in them selves not sufficient in order to create the product it was intended for.⁹

In order to give an example, suppose Company C wanting to produce Product C. The key input in order to produce Product C is Product A and Product B, the patent rights to those two products is held by two separate companies; Company A and Company B. Company C is thus not able to produce Product C and neither is Company A or B, since both components are necessary. The blocking patents are now hindering the development of product C, being of harm both to the potential producers of the product and consumers.

A possible solution could be Company A and B cross-licensing the patents for Product A and B, doing so both being able to produce Product C. Imagine Company C being the only company holding the necessary know-how for the production. Company C is under such circumstances the only company able to produce the product. In order for all companies to enjoy possible profit of Product C, Company A and B must license their patents to Company C. By creating a patent pool and jointly licensing their patents to Company C, Company A and B can avoid loosing out on the profit from product C and also favour technological development. The pooling of patents will hence limit the problems arising from the web of overlapping patents, otherwise blocking the creation of new products.¹⁰

2.3 The definition of patent pools

The Commission defines patent pools as follows in article 210 of its' Technology Transfer Guidelines.

“Technology pools are defined as arrangements whereby two or more parties assemble a package of technology which is licensed not only to contributors to the pool but also to third parties. In terms of their structure technology pools can take the form of simple arrangements between a limited number of parties or elaborate organisational arrangements whereby the organisation of the licensing of the pooled technologies is

⁹ Sharpiro, (2001) p. 119-120.

¹⁰ Ibid, p. 123.

entrusted to a separate entity. In both cases the pool may allow licensees to operate on the market on the basis of a single licence.”¹¹

Two or more companies form a patent pool; the pool is a single entity holding an entire group of assembled patents, licensing these as a package to third parties. Often a new entity is established to run the licensing process but the original patent holders might as well hold the entity.¹²

2.4 Different categories of patent pools

Patent pools can be divided into three categories, contingent on the relationship between the patents within the pool. Depending on the type of patented technology within the pool, the outcome of the pooling arrangement may be largely different.

The first type is a pool with substitute patents, which are so similar that one can be replaced with the other and thus fully competing.¹³ In this arrangement the pool creates little value for the creation of new technology while also causing higher prices by eliminating competition between alternative technologies.¹⁴

The second type is pooling of patents that are complementary, meaning that they are closely related and within the same area of technology. Joining these two patents in a pool results in enlarged value of them, due to the increased possibility of developing new technology or new products within this area with access to both patented technologies.

The third, and last, type is a patent pool that is a way of solving an issue of blocking patents. As described earlier, blocking patents cannot be exercised without the patent holders infringing each other's patents, hindering development and improvement and also making the patent insignificant to the holder. A pool can be way of solving such blocking positions.¹⁵

¹¹ Commission Guidelines, OJ [2004] C 101/02.

¹² Shapiro, (2001) p. 127, 134.

¹³ Taylor D, (1992), p. 202.

¹⁴ Gilbert, R, (2010), p. 337.

¹⁵ Taylor, D, (1992), p. 202.

2.4.1 Essential patents

It is supported by economical theory that a patent pool should be regarded as pro-competitive as long as patents included are of essential value to practise the technology standard intended for the pool. Such reasoning implies that a rigorous assessment of the essentiality of patents is necessary in order to determine which patents to include in a pool.¹⁶ When setting up a patent pool it is a common strategy to employ an independent patent expert, responsible for determining whether patents are essential. This way the pooling parties ensure that the pool contain only patents that are individually necessary for the intended technology, excluding competing, substitutable patents.¹⁷

Essential patents are described in the following way by Assistant Attorney General Joel Klein in a business review letter, regarding the patent pool defining the standard of DVD-ROM and video in 1999.

“Essential patents, by definition, have no substitutes; one needs licenses to each of them in order to comply with the standard.”¹⁸

As stated in this definition; an essential patent is one that is necessary for the specific standard intended for the pool. Inclusion of essential patents ensures the pool to function in accordance with its' intended purpose.¹⁹

However, it can be difficult to define patents that are considered perfect complements and thus essential for a pool, since the conditions of its essentiality can change.²⁰ Additionally it can be of economic benefit to include other patents besides those of obvious essentiality to a standard since the risk of excluding possible future essential patents might pose a threat both on competition as well as the functioning of the pool.

An example where such risks became apparent derives from the MP3-industry. Within this industry there were earlier no single pool for all patents essential for the MP3 technology, instead the ownership of patent rights were held by many separate right holders resulting in several issues within this field of technology.²¹ In the case *Lucent-Antel MP3*, Microsoft believed that they by negotiating a package license from Fraunhofer IIS had obtained

¹⁶ Gilbert, R, (2010), p. 339.

¹⁷ Shapiro, (2001), p. 134.

¹⁸ Klein, J, *Letter to Carey R Ramos*, (1999)

¹⁹ Lerner J, Tirole J, (2004), p. 2-3.

²⁰ Ibid, p. 3.

²¹ Gilbert ,R, (2010), p. 339.

all necessary IPRs in order to practise MP3 Technology. However, the company Lucent-Alcatel brought proceeding regarding patent infringement, claiming two of their patents within MP3 Technology had been infringed by Microsoft. Lucent-Antel initially won, but the judgment was later overturned. Even so, this pose clear example to the effects of excluding patents of possible essence within an area of technology.²²

2.5 The pro-competitive effects of patent pools

Most patent pools are, as described by Joel Klein, Assistant Attorney General for Antitrust, intended to have effects that benefit competition. These arrangements mostly provide consumers with better products at better prices by enabling research and technological development. Pooling agreements also give rising companies the possibility to develop products within different areas of technology, resulting in a large variety of products.²³

2.5.1 Lowering transaction costs

Pooling of patents within a certain area of technology or an industry standard facilitates the negotiation process for companies wanting to develop a product within the area of technology. A patent pool creates a one-stop-shop for patents, providing an opportunity for companies to avoid negotiating with every single patent holder within the field in order to license all patents desired. As a result transaction costs for multiple licensing are reduced.²⁴

2.5.2 Reducing litigation costs

Patent pools can be way of settling intellectual property disputes between parties, providing an alternative to costly litigation processes. Such litigations might result in one or more parties loosing large sums as well as the right to use the technology subject of the dispute.²⁵ Patent litigations are

²² *Lucent Tech., Inc. v. Gateway, Inc.* (2007).

²³ Klein J, *Letter to Garrard R. Beeney*, (1997).

²⁴ Kulbaski, J, (2002), p. 6-7.

²⁵ Shapiro, (2001), p. 142.

extremely costly and also very uncertain, due to little experience within the judicial system in these complex matters. Additionally, there is the risk of judges invalidating the patents of both parties.

Given the value inherent in the disputed patented rights, it might be more beneficial for the parties to come to an alternative solution to a dispute, avoiding the large risks of patent litigation. This opens up for the possibility of cross licensing or pooling of patents, since such a solution provides an opportunity for both parties to benefit from its patents meanwhile excluding the risk of having the disputed patents invalidated.²⁶

Patent pooling often benefits smaller companies, since litigation costs are a larger burden for these actors. The possibility of settling infringement procedures through pooling of disputed patents strengthens the position of smaller companies towards larger firms. Pooling is therefore common among smaller firms.²⁷

Similarly, small companies have little ability to obtain all licenses necessary from each individual entity since this is too costly; these companies often risk patent infringement. A patent pool offering the opportunity to license all essential patents through a one-stop-shop can reduce the number of companies risking infringement litigations. The chances of infringing a patent, due to a complex web of different patents covering a technical area, is reduced since a patent pool hopefully will ensure a licensee not having to risk patent infringement.²⁸

2.5.3 Clearing blocking patents

Through overlapping patent rights, important technologies can, as described earlier, be blocked. Such blocking positions cannot be solved without a licensing agreement between the patent holders and development will thus be hindered until a licensing agreement has been entered into. Patent pools can offer ways for patent holders to clear several blocking positions simultaneously, thus being of great importance to technological development. The current web of overlapping patents within many fields of technology puts a strain on development, surely justifying pooling of blocking patents.²⁹

²⁶ Carlson, S, (1999), p. 380.

²⁷ Ibid, p. 382.

²⁸ Kulbaski J, (2002), p. 7.

²⁹ Carlson, S, (1999), p. 379.

2.5.4 Spreading risk

Within a pool the royalties from joint patent licensing are spread amongst the firms within the pool. The parties will thus share the benefit of investments in inventions and consequently the risks of such new innovation. By reducing individual risks, incentives for further technological development will flourish.³⁰

³⁰ Carlson, (1999), p. 381.

3 EU antitrust policy on patent pools

3.1 The EU antitrust policy on patented rights (IPR)

As earlier stated; an IPR confers an exclusive right upon its holder to prevent others from using it without authorization. Such exclusive right given to an owner of an IPR is in much conflict with competition law incentives, which aims to keeping the market open to all and preventing exclusivity.³¹ However it has been stated by the Commission that there is no such conflict of interest, on the contrary IPR and antitrust regulations share the same goals of enforcing competition and creating consumer welfare, as well as giving incentives for innovation.³²

It is recognised by the commission that an IPR bestows upon its holder a certain legal monopoly since it gives right to exclude others from using an innovation. The holder of a patent is therefore by the European Commission presumed to enjoy a certain legal monopoly power in terms of its patented innovation. Such legal monopoly power can further lead to market power and pure monopoly power.³³

3.1.1 Free movement of goods

A patent right is considered a national right, meaning that patent protection only applies within the state where protection has been approved. Such limitations to intellectual property rights is in obvious conflict with the principle of free movement of goods and the open internal market within the European Union. In order to escape such conflict the ECJ has adopted the doctrine of exhaustion within the Union; once an IPR has been put on the European internal market, the right conferred by its holder has been exhausted and the right holder can no longer control the sales.³⁴ An Intellectual property right put on the market within the European Union can thus not be protected from usage due to a national protection of such right.³⁵

³¹ Wish, R, (2009), p. 758.

³² Commission Guidelines, OJ [2004] C 101/02.

³³ Commission evaluation report on the TTBER, 240/96, 3.1(28).

³⁴ Korah, V, (2006), p. 3.

³⁵ Wish, R, (2009), p. 757.

3.2 Competition rules in the TFEU

3.2.1 Article 101.1

Article 101(1) TFEU prohibits agreements that restrict or distort competition. Article 101.1 applies to both horizontal and vertical agreements, however vertical agreements are often block exempted through regulation 2790/99.³⁶

Under art 101(1) agreements that have as their objective or as their effect the restriction of competition, are prohibited. Agreements intended to fix prices as well as exchange of information of current and future prices, are regarded as having as its objective to distort competition. This also applies in terms of market-sharing agreements, agreements setting quotas and collective exclusive dealing. Further, an agreement conferring export bans from one member state to another is also regarded as an agreement with the objective of distorting competition. These types of agreements, regarded as an infringement by object, are per se considered as an infringement of Article 101(1).

Agreements that are not regarded as by object infringing competition law must be investigated further, since an actual or potential negative effect on competition must be evident in such cases.³⁷

3.2.2 Article 101.3

Article 101.3 TFEU provides a legal exception to Article 101(1), providing four conditions to be fulfilled in order for an agreement to be exempted from the application of Article 101(1).

The possibility of exemption offered by article 101(3) is based on economic efficiency, allowing pro-competitive effects of an agreement to be taken into account when evaluating its' effects on competition. The positive economical effects of an agreement are therefore taken into account, since gained efficiency might create additional value outweighing possible or actual negative effects on competition. The gained benefit must also be of

³⁶ Regulation 2790/99 OJ [1999] L 336/21, [2000] 4 CMLR 398.

³⁷ Wish, R, (2009), p. 82-120.

objective value to the community as a whole in order to fulfil the requirements.³⁸

The four criteria in order for an agreement to be given a legal exception are the following:

1. *The agreement must contribute to improvement of production or distribution of goods or to promote technological or economic progress.*
2. *This while allowing consumers a fair share of the resulting benefits*
3. *The agreement must not impose concerned restrictions on the undertakings, which are not indispensable to the attainment of the objectives above (1-2).*
4. *Further not afford undertakings the possibility of eliminating competition in a substantial part of the products in question.*³⁹

The conclusion to be drawn is that agreements in ways restricting competition might be of such benefit to economic growth or technological development that the communal gain justifies restriction of competition. The burden of proof for justification in accordance with Article 101(3) lies with the undertaking.⁴⁰

Lastly, exception from the application of article 101(1) will not be granted if it would result in an elimination of competition on a substantial part of the market, taking into account the market shares of the parties of the agreement and the entry barriers on the market.⁴¹

3.2.3 Block Exemptions

The Commission has granted a number of block exemptions to the application of Article 101(1). Block exemption regulations provide undertakings entering into an agreement the certainty not to be declared prohibited under Article 101(1). An agreement fulfilling the conditions for block exemption is presumed to fulfil the conditions of Article 101(3). Undertakings consequently do not have to notify the Commission of their agreement, limiting the workload of all parties.⁴² One type of agreement

³⁸ Wish, R, (2009), p. 155.

³⁹ TFEU, OJ [2012] C-326/47, art. 101.3.

⁴⁰ Wish, R, (2009), p. 151f.

⁴¹ Ibid, p. 159.

⁴² Ibid, p. 164

being block exempted is technology transfer agreements; patent licensing agreements. These are block exempted under the TTBER.

3.3 Patent pools under the Technology Transfer Block Exemption Regulation and Guidelines

3.3.1 Commission regulation 772/2004

The Commission Technology Transfer Block Exemption Regulation exempt licensing agreements for patents, know-how, software copyright and mixed patents from the application of article 101.1 TFEU.⁴³

Article 2

Pursuant to Article 81(3) of the Treaty and subject to the provisions of this Regulation, it is hereby declared that Article 81(1) of the Treaty shall not apply to technology transfer agreements entered into between two undertakings permitting the production of contract products.

This exemption shall apply to the extent that such agreements contain restrictions of competition falling within the scope of Article 81(1). The exemption shall apply for as long as the intellectual property right in the licensed technology has not expired, lapsed or been declared invalid or, in the case of know-how, for as long as the know-how remains secret, except in the event where the know-how becomes publicly known as a result of action by the licensee, in which case the exemption shall apply for the duration of the agreement.⁴⁴

Technology transfer agreements, or licensing agreements will be assumed to fulfil the conditions of Article 101(3) TFEU, mainly since these agreements usually have the effect of improving economic efficiency and reduce inefficiencies in research and development. They further strengthen innovation and product market competition. The pro-competitive effects of

⁴³ TFEU, OJ [2012] C-326/47, Since the reform Treaty of December 2007, The Treaty of the Functioning of the European Union has replaced the Rome Treaty, ad former art 81 is now art 101.

⁴⁴ TTBER, 772/2004, OJ [2004] L 123, art. 2.

licensing agreements are so vast that they must be regarded as outweighing the possible anti-competitive effects.⁴⁵

In the preamble to the TTBER licensing agreements arranging a patent pool are excluded from the application of the TTBER, giving that patent pools are not block exempted from application of the competition rules of Article 101(1).

(7) This Regulation should only deal with agreements where the licensor permits the licensee to exploit the licensed technology, possibly after further research and development by the licensee, for the production of goods or services. It should not deal with licensing agreements for the purpose of subcontracting research and development. It should also not deal with licensing agreements to set up technology pools, that is to say, agreements for the pooling of technologies with the purpose of licensing the created package of intellectual property rights to third parties.⁴⁶

3.3.2 The Technology Transfer Guidelines

The Technology Transfer Guidelines, following the TTBER, provides guidance for the application of the TTBER; it is further stated in the Guidelines that the block exemption covering license agreements does not apply to agreements for the pooling of patents.

Article 212

Agreements establishing technology pools and setting out the terms and conditions for their operation are not, irrespective of the number of parties, covered by the block exemption. Such agreements are addressed only by these guidelines.⁴⁷

Technology pools are in the Guidelines described by the Commission as “arrangements whereby two or more parties assemble an package of technology which is licensed not only to contributors to the pool but also to third parties”. Stating that in order fulfil the definition of a pool, licensing parties must not only license the patents internally within the pool, but also make the patents available for third parties. The Commission further states that technologies within the pool can be handled either by the members themselves, or by a separate party.

⁴⁵ TTBER, 772/2004, OJ [2004] L 123, preamble (5).

⁴⁶ Ibid, preamble (7).

⁴⁷ Commission Guidelines, OJ [2004] C 101/02, Article 212.

Licensing of all patents within the pool is possible through one single license.⁴⁸ The licensing agreements between the pool and third parties are block exempted under TTBER and considered similar to any regular licensing agreement.⁴⁹

The Commission also points out the possible restrictions on competition inherent in technology pools, stating that such arrangements give rise to issues regarding the selection of the technologies included in the pool. Other types of licensing agreements do not raise such issues. Due to these specific qualities of patent pools, they are excluded from the TTBER and consequently possible block exemption from article 101(1) TFEU.⁵⁰ The concerns of the Commission regarding the anti-competitive effect of technology pools are described in the following sections.

3.3.3 The anti-competitive risks of patent pools according to the Commission, as described in the Guidelines

In the Guidelines the Commission points out that a distinction must be made between complementing and substitute patents. The difference being that two complementary patents are necessary for the carrying out of a standard, whereas substitute patents on the other hand can individually serve such purpose. Nevertheless, patents might be substitutes in part but at the same time regarded as complementary, resulting in firms wanting to license both patents even if they partly cover the same technology. Licensing both patents might be beneficial in order to ensure future efficiency of the licensing.

Similarly, essential and non-essential technologies must be identified. An essential patent has no substitutes and is necessary in order to fulfil the purpose of the pool. Essential patents are considered complements since they are necessary in order to carry out the purpose of the pool.⁵¹

⁴⁸ Commission Guidelines, OJ [2004] C 101/02, Article 210.

⁴⁹ Ibid, Article 212.

⁵⁰ Ibid, Article 212-213.

⁵¹ Ibid, Article 216-218. Van Bael & Bellis, *Competition law of the European Community*, (2005) p. 699-705.

3.3.3.1 The anti-competitive risks of including substitute patents in a patent pool

According to the guidelines, inclusion of substitute patents in a pool is as a general rule considered an infringement of Article 101(1) TFEU, neither likely to fulfil the conditions of Article 101(3).

Patent pools entailing substitute patents would likely result in higher royalty costs due to reduced price competition among patent holders, putting a strain on competition.⁵² Pooling of substitute patents also risk causing collective bundling and price fixing between competitors.⁵³ The Commission has therefore settled that inclusion of substitute technologies in patent pools shall, as a general rule, be considered an infringement of Article 101(1) TFEU.

219. The inclusion in the pool of substitute technologies restricts inter-technology competition and amounts to collective bundling. Moreover, where the pool is substantially composed of substitute technologies, the arrangement amounts to price fixing between competitors. As a general rule the Commission considers that the inclusion of substitute technologies in the pool constitutes a violation of Article 81(1).⁵⁴

3.3.3.2 The anti-competitive risks of including non-essential patents in a patent pool

Also the inclusion of non-essential patents is considered likely to infringe Article 101(1). Such inclusion may result in the foreclosure of third party technologies, eliminating the possibility for competing patent holders to license its' substitute technology, closing them of from the market. Important to add is the fact that essential patents are considered having no substitutes, consequently meaning that the complementarity of non-essential patents is difficult to determine. Inclusion of non-essential patents is therefore likely considered anti-competitive.⁵⁵ The Commission additionally suggests that patents should be excluded if they are later made non-essential due to further development.⁵⁶

⁵² Commission Guidelines, OJ [2004] C 101/02, Article 217.

⁵³ Ibid, Article 219.

⁵⁴ Ibid, Article 219.

⁵⁵ Ibid, Article 221.

⁵⁶ Ibid, Article 222.

3.3.3.3 Exclusivity and grant back clauses

A patent pool holding a strong position on the market runs great risk of having a negative impact on competition. The Guidelines therefore states that pools having such qualities should be open and non-discriminatory, and additionally they must not be exclusive, in order to ensure that the pooling does not result in foreclosure and anti-competitive effects on the downstream markets.

The restriction on exclusivity clauses accounts for all pooling arrangements, inhibiting agreements restricting parties' rights to license its patents outside the pool. Such non-competitive clauses could obstruct competition by foreclosing third parties and preventing technological development.⁵⁷

Grant back obligations are however important in order to ensure possible development and improvement of the technologies within the pool, safeguarding pools not to become obsolete. Obligations on the parties must nevertheless be non-exclusive, granting parties the right to further license its innovations outside the pool. Grant back obligations must only cover essential improvements.⁵⁸

3.3.3.4 Exchange of sensitive information

On oligopolistic markets (markets with few actors and very similar products) exchange of sensitive information among parties is regarded as possibly causing detriment to competition. The information regarded as most sensitive is pricing information, output data or other strategic information. In order to ensure avoidance of collusion between pooling parties they must guarantee the safeguarding of such information, making sure that sensitive information is exchanged in a way keeping it unavailable for actors in the separate firms. In order for the pool to operate, it might be necessary to use an independent expert or licensing body, handling all necessary strategic information such as licensing fees in order to calculate royalty fees.⁵⁹

3.3.3.5 Protection of invalid patents

Patent pools might protect invalid patents since an overview of all pooled patent is sometimes difficult. As a result licensees run the risk of paying royalty fees for patents no longer valid, as well as higher royalties due to a large portfolio entailing invalid patents. Supplementary, this can limit

⁵⁷Commission Guidelines, OJ [2004] C 101/02, Article 223-227.

⁵⁸ Ibid, Article 228

⁵⁹ Ibid, Article 234.

technological development by protecting information of unpatented fields of technology open for further development.

3.3.4 Summary of the anti-competitive risks

A Patent pool might restrict competition in two ways according to the reasoning of the Commission: Firstly, a patent pool might result in a price fixing cartel, due to pooling firms engaging in joint selling. In cases of substitute patents included in a pool the risks of a price fixing cartel are vast. Secondly, a patent pool can cause foreclosure on the market, since pools often support industry standards. Standard setting and use of complying pools might cause foreclosure of alternative technologies since patents not included in the pool become less sought for.⁶⁰

3.3.5 The operation of the pool

In order for the pool to operate in a pro-competitive way it is most beneficial to involve external experts in the creation and operation of the pool. An independent expert can ensure inclusion only of patents fulfilling the essentiality and validity requirements. In the assessment of anti-competitive effects, the Commission will take into account the degree of independence of an external operator, which similarly accounts for the dispute resolution agreed up on between the pooling parties.⁶¹

3.4 Case law

3.4.1 The DVD technology pool

On May 12 1999, the companies Hitachi Ltd, Matsushita Electric Industrial Co., Ltd, Mitsubishi Electric Corporation, Time Warner Inc., Toshiba Corporation and Victor Company of Japan Limited (JVC) notified the Commission of a patent licensing programme, pooling the patents essential for the DVD⁶² technology.

Through the arrangement Toshiba was granted a worldwide non-exclusive license for all patents essential to the DVD technology. Toshiba agreed to

⁶⁰ Wish, R, (2009), p. 782-783.

⁶¹ Commission Guidelines, OJ [2004] C 101/02, Article 232-233, 235.

⁶² Digital Versatile Disc

grant licenses to any other firm with a wish to implement the DVD specifications, such licensing to third parties being worldwide and non-exclusive. Hitachi Ltd and Matsushita Electric Industrial Co., Ltd would also work as licensing agents for the pool.

The standard licence contract between Toshiba and third parties contains the following provisions:

- *under the terms of this licence, the licensee gains a worldwide non-exclusive right to make, have made, use, sell or dispose of DVD-video players, DVD-ROM drive, DVD decoders and DVD discs conforming to the DVD specifications under all the essential patents owned by the parties to the arrangement;*
- *the licensee has the option to negotiate for any essential patents and the other related patents separately with any member of the arrangement which is then required to grant such licence on fair, reasonable and non-discriminatory terms;*
- *all of the licensees under the scheme will be informed if any other party is granted more favourable royalty terms, so that their licences may be amended to reflect those terms;*
- *the licensee must grant a licence on 'fair, reasonable and non-discriminatory terms' to any essential patents it holds to any member of the arrangement and to all other licensees under this scheme;*
- *if the licensee takes court action against one of the members of the arrangement for breach of an essential patent that the licensee holds, and if it refuses to grant the member a licence on fair and reasonable terms for that patent, the member can terminate the licensee's rights to the patents that the member has given to the pool⁶³*

The parties each held blocking patents, hindering any of the parties from applying their patents for DVD technology without infringing patents held by the other companies. The arrangement to pool the patents essential for the DVD technology would dissolve blocking positions as well as making the joint patents available for third parties wishing to engage in DVD technology.

⁶³ Notification of a licensing system, DVD Patent Licensing Program, OJ [1999] C 242/04, § 4.

Pooling of the patents would result in DVD technology being spread quickly since all essential technology was made available through one single license. The pool was open to all patentees holding patents deemed essential for the DVD technology.⁶⁴

The DVD technology pool was granted an exemption from application of the competition rules. In its' assessment the Commission took into account the possible effects of promoting technological and economic progress since the pool would enable fast introduction of DVD technology. The Commission was of the opinion that the arrangement did not contain any "unnecessary or excessive restriction on competition" instead as an effect having reduced transaction costs for firms engaging in development of DVD technology. Consumer benefits were also apparent since the pool would result in possible enjoyment of DVD technology at shorter time and at lower costs.⁶⁵

3.4.2 The 3G Mobile Services Pool

In order to produce 3G-equipment a certain standard, the IMT-standard, was set. The standard entailed five different techniques, each possible to use when developing 3G-equipment.

On the 14th of July 2000 the companies forming the 3G Pools⁶⁶; 3G3P, presented to the Commission a number of agreements regarding the functioning of the patent pools. In order to best preserve the competition within 3G-technology the parties decided on forming five separate pools, each covering different techniques important for 3G-equipment. The patents included in each pool were regarded essential for the technology.

In their evaluation of patent pools the Commission took into account essentiality of patents included and whether the licensing of the patents would be taking place on non-discriminatory grounds. Furthermore, the Commission evaluated the safeguarding of sensitive information between the parties in order to avoid collusion. Cared for was also the regulation of royalty costs. Producers of 3G-products should not have to pay royalty costs for other than the required patents; the pooling could otherwise cause

⁶⁴ Van Beal & Bellis, (2005), p. 653f.

⁶⁵ Ibid, p. 654.

⁶⁶ Alcatel, Cegetel, Electronics and Telecommunications Research Institute Korea ("ETRI"), France Telecom, Fujitsu, Royal KPN N.V., LG Information and Communications, Matsushita, Mitsubishi Electric, NEC, NTT DoCoMo, Robert Bosch GmbH, Samsung Electronics, Siemens AG, SK Telecom, Sonera Corporation, Sony and Telecom Italia Mobile.

lowered incentives for further development within the area of telecommunication.

Lastly, the Commission took into account the fact that a number of large actors on the market also holding important patents for the 3G technologies, Ericsson, Nokia, Motorola and Qualcomm, were not part of the pooling arrangement. Indicating that the pools would not have an anti-competitive impact on the market for 3G-technologies. The pooling arrangements for 3G-technologies were due to the above not considered to infringe EU competition rules.⁶⁷

3.5 The 2013 proposal for a revised Technology Transfer Block Exemption Regulation

Under the current legislation regarding Technology Transfer agreements, patent pools are assessed on a case-to-case basis, being excluded from the application of the TTBER. The formation of a technology pool must therefore be assessed according to the above-described factors, such as the transparency during the formation of a pool, involvement of experts, the selection of patents included as well as the actions taken to ensure non-exchange of sensitive information.

The Commission proposed, on February 20, 2013, a revision of the current TTBER to enter into force on April 30, 2014 when the current Regulation expires.⁶⁸ Following the new draft for the Regulation the Commission has also drafted new Technology Transfer Guidelines.

In the drafted Guidelines the Commission proposes a “safe harbour” to be applied in the assessment of technology pools in order to clarify the conditions under which a technology pool is not likely to fall under the application of article 101.1 TFEU.

Safe harbour

(244) The creation and operation of the pool generally falls outside Article 101(1) irrespective of the market position of the parties if all the following conditions are fulfilled:

⁶⁷ Press release, IP/02/1651, (2002)

⁶⁸ Draft TTBER, C (2013) 921 draft.

- (a) participation in the standard and pool creation process is open to all interested parties;*
- (b) sufficient safeguards are adopted to ensure that only essential technologies (which therefore by necessity are also complements) are pooled;*
- (c) sufficient safeguards are adopted to ensure that exchange of sensitive information is restricted to what is necessary for the creation and operation of the pool;*
- (d) the pooled technologies are licensed into the pool on a non-exclusive basis;*
- (e) the pooled technologies are licensed out to all potential licensees on FRAND terms*
- (f) the parties contributing technology to the pool and the licensees are free to challenge the validity and the essentiality of the pooled technologies, and;*
- (g) the parties contributing technology to the pool and the licensee remain free to develop competing products and technology.⁶⁹*

The conditions are intended to provide guidance for the assessment of patent pools. Pools fulfilling these requirements should be considered to fall outside of Article 101(1) without being assessed on a case-to-case basis.

Under the drafted TTBER, patent pools are not fully exempted from the application of article 101(1). Nevertheless, the Guideline provides a soft safe harbour for such agreements, simplifying the structuring of a pool in order to be regarded as pro-competitive. According to an article written by Peter Alexiadis⁷⁰, the Commission has indicated that an even further acceptance of patent pools is possible, widening the scope of the safe harbour in order to possibly accept inclusion of non-essential patents.

⁶⁹ Draft Commission Guidelines, C (2013) 924 article 244.

⁷⁰ Peter Alexiadis, (2013).

4 American antitrust policy on patent pools

4.1 The U.S antitrust law

The task to enforce the competition rules in the U.S is held by the Federal Trade Commission (FTC). The fundamental grounds for antitrust law is built up by three bodies of law passed by Congress; the Sherman Act, passed in 1890, the Federal Commission Act and the Clayton Act.⁷¹

The Sherman Act prohibits agreements or other acts putting a restraint on trade additionally prohibiting monopolization and conspiracy. Agreements or partnerships restraining trade are deemed unlawful, although positive effects of such agreements or partnerships will be taken into account possibly justifying anti-competitive agreements. Still, some acts of competitors are considered of such harmful nature never to be justified by economic gain. These acts are in accordance with U.S case law regarded as “per se”⁷² violations and will under all circumstance be prohibited.

Enforcement under the Sherman Act is possible both under civil- and criminal law; the law is thus enforced by the Department of Justice, not the FTC. Prosecution under Criminal Law is very limited and even though a penalty of up to ten years in prison is possible, penalty payments are most often applied. Penalties can amount up to either \$100 million for a corporation (\$1 million for an individual) or twice the amount gained from a conspiracy or lost by the victim.

1. Trusts, etc., in restraint of trade illegal; penalty Every contract, combination in the form of trust or otherwise, or conspiracy, in restraint of trade or commerce among the several States, or with foreign nations, is declared to be illegal. Every person who shall make any contract or engage in any combination or conspiracy hereby declared to be illegal shall be deemed guilty of a felony, and, on conviction thereof, shall be punished by fine not exceeding \$10,000,000 if a corporation, or, if any other person, \$350,000, or by imprisonment not exceeding three years, or by both said punishments, in the discretion of the court.⁷³

⁷¹ FTC, the Antitrust Laws, http://www.ftc.gov/bc/antitrust/antitrust_laws.shtm, 2013-11-14.

⁷² Compare to restriction by object in EU law.

⁷³ The Sherman Antitrust Act (1890), Section 1.

Only the FTC enforces the Federal Trade Commission Act. Violations of the Sherman Act are also violations under the FTC Act, meaning that the FTC act is applicable on anti-competitive agreements parallel to the Sherman Act. Supplementary, the FTC Act also covers other activities harmful to competition, thus having a much wider scope.

The Clayton Act prohibits activities not covered by the Sherman Act, such as mergers and acquisitions having anti competitive effects. Firms are required to notify the government of such activities before finalising their transactions. The Clayton Acts further prohibits discriminatory pricing and allowances.⁷⁴

4.2 The U.S antitrust policy on patent rights, the US Guidelines for Licensing of Intellectual Property

A patented right in the US gives its' holder the right to exclude others from using or selling the patented right within the U.S. A patent is valid for seventeen years from the date of issue. In order to gain protection an invention must fulfil the requirements of novelty, being non-obvious and useful. A patented right also hinders others besides the patent holder from using the patented right in further creation. The U.S IP Laws and Antitrust laws both share, as does the EU policies, the incentive to promote innovation and enhance consumer welfare.⁷⁵

The Federal Trade Commission and the US Department of Justice issued in 1995 Guidelines stating the antitrust enforcement policy in regards to IPR. The Guidelines provide a clear indication on the approach held by the FTC and the U.S DoJ on the anti-competitive issues inherent in licensing agreements. Still, it does not give the whole picture; court judgements and antitrust law enforcement still apply as ultimate law.⁷⁶

Antitrust infringements involving IPRs is dealt with in no other way by the DoJ or the FTC than other infringements.⁷⁷ Even so, the specific

⁷⁴ FTC, the Antitrust Laws, http://www.ftc.gov/bc/antitrust/antitrust_laws.shtm, 2013-11-14.

⁷⁵ U.S Antitrust Guidelines of intellectual Property, (1995), article 1.

⁷⁶ Ibid, article 1.1, paragraph 1.

⁷⁷ Ibid, article 2.2(a). Klein, J, *Cross-Licensing and Antitrust Law*, (1997), p. 3.

circumstances on the IP market are taken into account as with any other market.⁷⁸ As mentioned, the holder of a patent is given the right to exclude others from using it and is therefore an exclusive right. Such exclusivity can be compared with any other form of private property; it can also cause anticompetitive effects.

A patent holder can under certain circumstances, in lack of other potential or actual substitutes for the invention, hold significant market power. Despite this, the holding of an IPR does not constitute a presumption of market power following case law. In *Abbott Laboratories v. Brennan from 1991*⁷⁹, the court stated that no presumption of market power could be made from the possession of an IPR. In the case *Jefferson Parish Hospital District No. 2 v. Hyde* it was stated that a patent holder has no market power in case of other substitute patents being available on the market.⁸⁰

Clearly stating the above, the U.S DoJ and The FTC confirms in the Guidelines as a general rule in the application of antitrust law on IPRs that possession of an IPR does not presume market power.⁸¹ More, the agencies state that market power or a monopoly does not in itself constitute a violation of antitrust laws.⁸²

Under the U.S Guidelines there is, similarly to the EU block exemption, a “safety zone” for licensing agreements. The purpose is to promote innovation by creating a level of certainty for firms setting up licensing arrangement in order to enable further development. The safety zone will apply to licensing agreements not including restrictions “per se”⁸³ infringing competition rules as well as agreements between parties with a market share of less than twenty per cent of the relevant market.

4.3 Patent pools under the US Guidelines for Licensing Intellectual Property

Under the US Guidelines certain potential anti-competitive effects can be identified; risks of collective pricing and output restraint like for instance

⁷⁸ U.S Antitrust Guidelines of intellectual Property, (1995), article 2.1, paragraph 3

⁷⁹ *Abbott Laboratories v. Brennan*, (1991)

⁸⁰ *Jefferson Parish Hospital District No. 2 v. Hyde*, (1984)

⁸¹ U.S Antitrust Guidelines of intellectual Property, (1995), article 2. 2.0(b).

⁸² *Ibid*, (1995), article 2.2.

⁸³ The Sherman Act (1890) section 1, Automatically condemned as anticompetitive, can be compared with the hard core restrictions in EU competition law.

joint marketing or coordinated output restriction. If a patent pool has any such effect it can be deemed unlawful under antitrust regulation. Yet, if a pool is considered efficiency enhancing or in other ways beneficial for economic integration, anti-competitive effects can be out weighed.

Exclusion of patent holders might be regarded anti-competitive if the patent holder as a result will have no ability to effectively compete on the market. The U.S DoJ and the FTC will under such circumstances evaluate the net effects of the limitations in the pooling agreement, assessing whether limiting participation is necessary in order for the pool to function and if it promotes development of the pooled technologies.

Grant back clauses in an agreement between pooling parties must also be evaluated do to the possible anticompetitive effects. Such clauses are often beneficial if the grant backs are non-exclusive, since a patent pool might become obsolete in case of new technology being kept outside the pool. However, there is a risk of discouraging research and development among parties, in cases of grant back clauses forcing members to license future inventions to the other parties or forcing members to grant licenses at minimal costs. Under such circumstances parties might free ride on the inventions and investment of other members, discouraging further research and development among all parties.⁸⁴

If patented rights within a pool are close substitutes, there is a likely risk of royalties increasing due to the large concentration of a specific technology within the pool. According to example 9 of the US guidelines, the increase in prices must be compared to the possible efficiency gain of inclusion of substitute patents. Assessment of patent pools under antitrust laws is done in accordance with the rule of reason; anti-competitive effects balanced against the efficiency gains, in order to determine whether a patent pool shall be permitted under antitrust laws.⁸⁵

All aggregation of patents in a patent pool must undergo an antitrust analysis, in order for the DoJ to examine all competitive benefits and possible risks, before approving a joint licensing.⁸⁶ The FTC and the U.S DoJ has, according to Learner and Tirole's *Efficient Patent Pools*, treated patent pools in a very favourable way in application of antitrust laws. Patent

⁸⁴ U.S Antitrust Guidelines of Intellectual Property, (1995), article 5.5.

⁸⁵ U.S. Dep't of Justice & Fed. Trade Comm'n, Antitrust Enforcement and Intellectual Property Rights: Promoting Innovation and Competition (2007), chapter 3, IV. Klein, J, *Cross-Licensing and Antitrust Law*, (1997), p. 4. Under the Sherman Act, section 1, a few acts of competitors fall under the "per se" rules, automatically condemned as anticompetitive, other acts is assessed according to the rule of reason.

⁸⁶ Klein, J, *Letter to Garrard R. Beeney*, (1998), p. 9.

pools are mainly considered beneficial both in the interest of intellectual property owners and consumers.⁸⁷ There is no mention in the Guidelines of inclusion of substitutable patents being an anticompetitive issue. Richard J Gilbert further evaluates this in his article on the history of patent pools, stating that courts in the U.S have historically given very little notice to the competitive relationship between patents within in a pool. The main focus has been on the existence of downstream restrictions in agreements between the licensing parties.⁸⁸

4.4 Anti-competitive concerns of the U.S Department of Justice and the Federal Trade Commission

4.4.1 Substitute patents

As mentioned above, the FTC and the U.S Court of Justice have in most earlier cases given very little attention to the competitive relationship between patents. The Guidelines only states:

The Agencies recognize that intellectual property licensing allows firms to combine complementary factors of production and is generally pro-competitive⁸⁹.

The FTC and the DoJ examines the issue of substitutable patents further in its report from 2007. In this report agreeing on the fact that inclusion of substitute patents generally pose a greater strain on competition than inclusion of complementary patents. Inclusion of substitute patents will likely cause high prices or price-fixing. **Yet, the FTC and the DoJ states that possible efficiency gains of including substitute patents must also be assessed in order to determine whether such inclusion should be prohibited or not. Inclusion of substitute patents might be necessary in order for the pool to fully comply with the intended standard.**

Regarding essential patents, the method for determining essentiality has been non-consistent throughout history. In the MPEG-2 case the court investigated only the patents technical essentiality, whereas the court in the DVD case only examined the economical essentiality of the patents in order

⁸⁷ Lerner, J, Tirole, J, (2004), p. 2.

⁸⁸ Gilbert, R, (2004), p. 24.

⁸⁹ U.S Antitrust Guidelines of intellectual Property, (1995), article 2.0.

for the pool to function. In the report from 2007 it is stated that if an essentiality test is properly applied this should ensure that no substitute patents are included, however not defining the proper way of assessing essentiality.⁹⁰ Assistant Attorney General Joel Klein (cited also in 2.1.1) defines essential patents as follows:

“Essential patents, by definition, have no substitutes; one needs licenses to each of them in order to comply with the standard”⁹¹

4.4.2 Exclusive and non-exclusive licenses

Exclusivity clauses hinder patent holders from licensing its patents outside the pool, possibly reducing incentives for further development. Licensing outside the pool enables other inventors to use patented technology separate from the other patents in the pool and for other purposes than development in compliance with the set industry standard.

The FTC and the DoJ has expressed that there are possible pro-competitive benefits of exclusive licensing, such as creating an incentive for licensing of complementary patents. Most patent pools however apply non-exclusive agreements. Still, it is not clearly expressed by the FTC and the DoJ that exclusive agreements under all circumstances are anti-competitive.⁹²

4.4.3 Grant backs

In the Antitrust Guidelines for IPRs, a grant back is defined as “*an agreement by which a licensee extends to the licensor the right to use the licensee’s improvements to the licensed technology*”⁹³. In the context of pooling arrangements obliging patent holders to license all improvement to the pool.

Grant backs might have as an effect to lower the incentive to further develop a licensed patent technology since the right to an improvement can not be enjoyed in full by its’ inventor. However, the report from 2007 points out

⁹⁰ U.S. Dep’t of Justice & Fed. Trade Comm’n, Antitrust Enforcement and Intellectual Property Rights: Promoting Innovation and Competition (2007), chapter 3. D, 1.

⁹¹ Klein, J, *Letter to Carey R. Ramos*, (1999).

⁹² U.S. Dep’t of Justice & Fed. Trade Comm’n, Antitrust Enforcement and Intellectual Property Rights: Promoting Innovation and Competition (2007), chapter 3. D, 2.

⁹³ U.S Antitrust Guidelines of intellectual Property, (1995).

that non-exclusive grant backs limited only to essential improvements run very little risk of having anti-competitive effects.⁹⁴

4.4.4 Access to information

Firms forming a patent pool are most often competitors. For this reason collusion is possible if an exchange of sensitive information takes place between the parties. Such collusion can result in price coordination and lower the incentive of research and development. In order to prevent this, an independent administrator can be given the task of handling the information from each firm in order to set royalty prices and other tasks where sensitive information must be exchanged. Other mechanisms for protection of each firm's sensitive information can be used in order to limit the access to information of other parties.⁹⁵

4.4.5 Request for partial licenses from a pool

On some occasions licensees have no need for all licenses within a pool, possibly having licensed some of the patents earlier or simply not intending to use all patents offered for joint licensing. The possibility of licensing only part of the portfolio cannot be guaranteed since the FTC and the U.S DoJ do not identify an obvious strain on competition in agreements offering only packaged licensing. The possibility to license directly from the licensors is considered being a sufficient alternative to the possibility of partial licensing from the pool, even if this might result in marginally higher transaction costs.⁹⁶

4.5 Case Law relating to patent pools

4.5.1 The early approach to patent pools

In the very beginning of patent pool creation, patented rights were given a dominant position towards federal antitrust law, first evident in a case from 1902, *E. Bement & Sons v. National Harrow Co*⁹⁷. Six different firms

⁹⁴ U.S. Dep't of Justice & Fed. Trade Comm'n, *Antitrust Enforcement and Intellectual Property Rights: Promoting Innovation and Competition* (2007), chapter 3. D, 3.

⁹⁵ *Ibid*, p.4.

⁹⁶ *Ibid*, chapter 3, D, 6.

⁹⁷ *E. Bement & Sons v. National Harrow Co.*, 186 U.S. 70 (1902)

gathered their eighty-five patents for float-spring tooth harrows in a pool. The patent pool grew, finally covering ninety percent of the market of float-spring tooth harrows. The terms of the license agreement fixed uniform price schedules for licensees. The court stated that patent holders should enjoy an absolute freedom in terms of selling his inventions, regardless of results such as fixed prices or monopoly. The court thus clearly stated the dominance of patent law and patented rights in matters involving antitrust concerns.⁹⁸

Patent pools enabled collusion up until 1912⁹⁹ when the Supreme Court for the first time broke up a patent pool due to the company Standard Manufacturing Co.'s activities forcing participants to withhold a minimum sales price. The Supreme Court concluded that the extensive rights given to patent holders had been stretched to far since the Sherman Act imposed limits on the abuse of patent rights.¹⁰⁰

The ruling in Standard Manufacturing resulted in a change of agenda in U.S Courts; from that point on they kept a restrictive approach towards patent pools. This approach was confirmed also by the ruling in Hartford-Empire Co. v. United States. Hartford-Empire Co. controlled an extensive glass-manufacturing cartel built up by the pooling of patents covering gob-fed glass-blowing process and cross-licensing patents to companies holding patents covering the competing suction glass-blowing process. Through this system, all relevant patents for glass blowing were assembled under the roof of the Hartford-Empire, using its' powers to force other competitors to sell their relevant patents to the pool. The pool thus provided licenses to ninety-four per cent of the U.S market for glass production, keeping very high licensing fees. The Court ruling resulted in patent pools being obliged to license its' patents at standard royalties without discriminatory or restrictive terms. The strict approach held by the DoJ resulted in a decline in the number of patent holders entering into pooling agreements during the second half of the 20th century.¹⁰¹

4.5.1.1 The Manufacturers Aircraft Association

In April 1917, around the time for the U.S entry into the World War I, the U.S Government had an interest in airplane manufacturing. The Government was at the time a large consumer of such technology and interested in further development of the airplane industry. The industry was

⁹⁸ Gilbert, R, (2004), p. 2. Carlson, S, (1999), p. 373.

⁹⁹ Standart Sanitary Manufacturing Co. V. United States, (1912).

¹⁰⁰ Carlson, S, (1999), p. 374.

¹⁰¹ Hartford-Empire Co. V. United States, 323 U.S 386 (1945).

in its' very beginning and the first patent holder; Wright-Martin Aircraft Corp (holder of the Wright brothers basic patent), was blocking all other aspiring manufacturers. Only one competing patent holder existed, Curtiss Aeroplane & Motor Corp., also held blocking patents. The two companies were demanding extremely high royalties for their patents, amounting to very large costs for the U.S government in order to produce the amount of airplanes desired.

In order to limit the unreasonably large costs and to make possible the production of airplanes, an advisory committee was set up, recommending a formation of a patent pool. The pool was set up in July 1917 and members granted non-exclusive licenses to all parties of the pool. All members were obliged to license all necessary patents to the pool in order to enable all airplane production through one license. A flat rate was paid for each plane produced.

From an anti-competitive perspective, the Attorney General¹⁰² declared that the pro-competitive effects of the joint licensing were so vast that anti-competitive effects were outweighed. Since the pool was created during wartime, a period where the U.S government was in desperate need of airplane technology, it must be taken into account that such interest had an impact on the assessment of the pool. Under normal circumstances the pool would likely have been regarded as limiting innovation incentives among its members since the pool put an obligation on all members to grant all new innovation to the pool with no repayment.¹⁰³

4.5.2 The current approach to patent pools

In the late 1990s the FTC and the U.S DoJ again approached patent pools by publishing the U.S Guidelines concerning antitrust for IPRs and taking on cases concerning the lawfulness of patent pools (4.7). Doing so setting a new standard for the approach towards patent pools in U.S antitrust law, trying to assess the positive and negative effects of such arrangements.¹⁰⁴

¹⁰² Klein, J, *Cross Licensing and Antitrust Law*, (1997), p. 170-171.

¹⁰³ *Ibid*, p. 5-11.

¹⁰⁴ Carlson, S, (1999), p. 373-375.

4.5.2.1 The MPEG 2 Pool

In 1997 the Trustees of Columbia University, Fujitsu Limited, General Instruments Corp., Lucent Technologies Inc., Matsushita Electric Industrial Co. Ltd, Mitsubishi Electric Corp., Philips Electronics N.V., Scientific-Atlanta Inc. and Sony Corp proposed to jointly license their patents through a commonly owned agent; MPEG LA.

The intention of the proposed patent pool was to gather all licenses essential for compliance with the MPEG-2 compression technology standard. The patent portfolio would consist of 27 patents, all identified by an independent patent expert sponsored by the firms responsible for the development of the standard. The expert had studied of over 800 patents, ultimately identifying 27 patents held by the above firms, covering all essential technology.

Assistant Attorney General Joel Klein expresses the position held by the U.S DoJ in his business review letter.¹⁰⁵ The DoJ had primarily examined the validity and competitive relationship of the patents included, since inclusion of invalid or expired patents will not be accepted under antitrust regulation. It is further expressed in the business review letter that inclusion of competing patents and joint licensing of them might raise anticompetitive concerns. However, efficiency gains of such licensing are likely, in such case possibly justifying anti-competitive risks.

The Assistant Attorney General concluded that both the fact that the pool is set up by an independent expert as well as the inclusion only of patents essential to the MPEG-2 standard, gives assurance of the pro-competitive effect of the pool. The involving of an independent further supported this conclusion.

The grant back clause in the agreement obliges licensees to non-exclusively license essential patents to the pool. Since the grant back obligation is limited to essential patents, it is not regarded to limit incentives for innovation in a distinctive way, but instead keeping actors on the market from restraining development by excluding others from its essential patent.

For the above reasons the Department of Justice stated that they saw no reason for initiating an antitrust enforcement against the joint licensing, since most part of the terms of agreement served to protect competition.¹⁰⁶

¹⁰⁵ Klein, J, *Letter to Garrard R. Beene*, (1997).

¹⁰⁶ *Ibid*, (1997).

4.5.2.2 The 3C DVD Pools

Similar to the patent pool for the DVD-standard approved by the European Commission, Philips Electronics N.V, Sony Corporation of Japan and Pioneer Electronic Corporation of Japan, formed a pool (3C DVD-pool) complying with the specification of the DVD-standard. The pooling arrangement was made up in a way making Pioneer the licensor, to whom the other parties licensed patents necessary for compliance with the DVD-standard¹⁰⁷. Pioneer, contrary to the independent licensor in the MPEG-2 pool, licensed out all patents.

The Department of Justice issued a business review letter on December 16, 1998, examining the validity of the patents within the pool and the essentiality of them in order to comply with the DVD standard. It is stated in the terms of agreements that *a patent should be necessary (as a practical matter)* in order to be included in the pool. The Department of Justice interpreted the term “*necessary (as a practical term)*” as being sufficiently restrictive regarding substitute patents.

Pioneer ran the administration of the pool instead of an independent administrator. The parties had agreed on contractual commitment for the licensor to remain independent, and according to the DoJ the commitment was sufficient in order for the pool to function in accordance with antitrust regulation.¹⁰⁸ Regarding the grant back provisions, this was in much very similar to the one applied in the MPEG-pool, obliging only holders of essential patents to grant licenses to the pool.¹⁰⁹

4.5.2.3 The 6C DVD Pool

The Department of Justice issued a second business review letter regarding pooling of patents for compliance with the DVD-standard in June 1999, between the parties Toshiba, Hitachi, Matsushita, Mitsubishi, Time Warner and Victor Company of Japan. The joint licensor of the pool was Toshiba, collecting non-exclusive licenses from the five other parties. Patents included were defined as “*necessarily infringed*” and “*for which there were no other realistic alternative for implementing the DVD Standard specification*”, interpreted as patents essential for the DVD standard. The essentiality test was carried out by an expert appointed by the pool, also responsible for reviewing the continued essentiality of included patents. The

¹⁰⁷ DVD-Video or DVD-ROM standard.

¹⁰⁸ Klein, J, *Letter to Garrard R. Beene*, (1998), p. 11.12.

¹⁰⁹ *Ibid*, p. 14.

6C DVD Pool included a similar grand back clause as the one applied in the 3C DVD pool and the MPEG-pool.¹¹⁰

4.5.2.4 The Summit-VISX Pool

In contrast to the MPEG-2 pool and the patent pools in accordance with the DVD-standard, the pooling of patents held by Summit Technology Inc. and VISX Inc. was considered to be in violation of antitrust law. The pool gathered patents used for laser eye surgery technology: Photorefractive keratectomy (PRK).

The pool was considered anti-competitive due to its' activities joining competing patents in order to share the profits of all use of laser eye surgery technology. Summit and VISX was the only two companies holding patents approved for PRK technology, hence the joining of the two companies competing patents made licensing of the technology from any other party impossible¹¹¹ During the six year-long existence of the patent pool no third-party licenses were issued, instead users of the technology were charged 250 dollars for each single procedure performed with PRK-technology.¹¹²

The demand of PRK-technology was at the time large and the market was growing fast. The illegal joint licensing of Summit and VISX cost consumers millions of dollars due to price fixing and reduced competition on the market for laser eye surgery.

The patent pool was dissolved in 1998 through a settlement with proposed orders from the FTC. The pool was regarded to have eliminated competition by fixing and raising prices and eliminating incentives for further licensing or competition between the firms. Summit and VISX was the only two companies on the market to have gained approval for the PRK lases system, thus the only companies able to license out patents in the field.¹¹³

¹¹⁰U.Ss Dep't of Justice and Fed. Trade Comm'n Antitrust Enforcement and Intellectual Property Rights;Promiting Innovation and Competition (2007), p. 69.

¹¹¹ Summit and VISX Settle FTC Charges of Violating Antitrust Laws, Press release, August 21, (1998).

¹¹² U.Ss Dep't of Justice and Fed. Trade Comm'n Antitrust Enforcement and Intellectual Property Rights;Promiting Innovation and Competition (2007), p. 73.

¹¹³ Summit and VISX Settle FTC Charges of Violating Antitrust Laws, Press release, August 21, (1998), p. 73

4.6 The American Bar Association's view on EU antitrust policy on patent pools and the current draft

The American Bar Association, by request from the Commission, gave their opinion on the Commission's TTBER and the Guidelines. The task was directed to the Section of Antitrust Law and the Section of International Law within the Bar Association. The Commission requested comments based upon the U.S experience in the field of antitrust law and IP law, and the development and practice in these matters in order to assist in the Commission's evaluation of the current EU Regulation¹¹⁴. The aim being to further refine and harmonize the approach on technology transfer agreements in the EU and the U.S, since the current Regulation expires in April 2014.

Specifically, the Sections recommend that the Commission

- *Strengthen the analysis used to define competitors, particularly where two parties occupy blocking positions to one another (Section II.A);*
- *Reconsider the TTBER's and Guidelines' singular focus on market share thresholds, expanding the focus to include consideration of the number of alternative R&D efforts instead of market share (Section II.B);*
- *Encourage a more lenient view of grant-backs, especially those involving severable improvements (Section III.A)*
- *Clarify certain aspects of the guidelines on settlements and non-assertion agreements (Section III.B);*
- *Encourage an effects-based analysis of the inclusion of substitutes in technology pools and offer guidance on the circumstances in which pool members can respond to patent assertions by third parties (Section III.C);*
- *Offer guidance on the treatment of agreements outside the scope of the TTBER, focusing in particular on the distinction between hardcore and non-hardcore restrictions, and on field of use limitations (Section III.D).*

¹¹⁴ TTBER, OJ [1996] L 031, 240/96.

4.6.1 Inclusion of non-essential patents

The Bar Association pointed out the fact that there in the EU Guidelines is a presumption of substitute technologies in a pool constitutes a violation of antitrust regulation, Article 101.1 TFEU. The Bar Association proposed that an application of an effects-based analysis on pooling arrangements including possible substitute patents to be a more beneficial approach than excluding all substitute patents. The Bar Association pointed out, in order to strengthen its' argument, the fact that determination of substitutability of patents can be difficult¹¹⁵, possibly resulting in exclusion of patents first thought to be substitutes later appearing to be essential for the compliance with a technology standard.

The Bar Association was of the opinion that a patent pool fulfilling the requirements of article 222(b) in the EU Guidelines; making available individual licensing of pooled patents, to ensures the availability of its' patents for third party licensees in such a way that inclusion of non-essential patents should not impede competition. Implying that inclusion of non-essential (possibly substitutable) patents does not necessarily have to be regarded as a violation of antitrust regulation.

It is brought forward in the comments that the recommendations of the American Bar Association is in line with the reasoning in economic literature, both stating that the assessment of pro-competitive and anti-competitive effects are essential. In short the American Bar Association advocates proposes a more effects-based analysis of patent pools under antitrust laws, this analysis is also supported by economic theory.¹¹⁶

4.6.2 Presumption of market power

It was expressed by the Bar Association, in a previous comment from 2002, that there is an obvious difference in the approach on IPRs and market power in the U.S and the EU antitrust law. EU law presuming legal monopoly from the holding of an IPR, whereas the U.S Guidelines for IPRs clearly does not to presume market power.¹¹⁷

¹¹⁵ This is also expressed in paragraph 218 in the Commission Guidelines OJ [2004) C 101/02.

¹¹⁶ Joint Comments of the American Bar Association (2012).

¹¹⁷ Joint Comments of the American Bar Association (2002) p. 3.

4.6.3 Expansion of the scope of the TTBER

In the earlier opinion from the American bar Association, the scope of the TTBER was evaluated. The Bar Association suggested a possible extension of the Block exemption regulation in order to also exempt multi-party licensing. The Bar Association stated that there where no reason for the Commission to treat licence agreements between several parties fundamentally different from a bilateral license agreement. Indicating that focus should be on the relationship of the licensed technologies, not the agreement as such. The Bar Association where also of the opinion that technology pools (at least bilateral pools) should not be excluded from the block exemption, stating that exemption should apply even if exclusive territories where granted in the terms of agreement. Anti-competitive effects of such arrangements cannot be assumed since the pro-competitive effects can outweigh them.¹¹⁸

¹¹⁸ Joint Comments of the American Bar Association (2092), p. 23-24.

5 Analysis

5.1 The current state of law

5.1.1 EU Law

Under the current regulation on licensing agreements, patent pools are fully excluded from the possibility of block exemption. These arrangements require an analysis in accordance with art 101(3) TFEU for determination of whether to be considered pro-competitive. It is described in the Commissions Guidelines how these arrangements shall be assessed under antitrust regulation.

The inclusion of substitute patents in a patent pool is, as stated in article 219 of the Commission Guidelines, as a general rule considered an infringement of article 101(1) TFEU. The general rule has consequently resulted in the requirement that only essential patents must be included in patent pools. The requirement further inflict on the pooling firms to take into account such consideration during the formation of the pool; requiring parties under almost all circumstances to use an external expert, in order to ensure that all patents included fulfils the requirement of essentiality.

5.1.2 U.S Law

In the U.S Guidelines for IPRs there is no requirement of inclusion of only essential patents, or in any other remark constraining the competitive relationship between patents. The FTC and the DoJ however agrees that the inclusion of substitute patents in patent pools might increase the risk of anti-competitive effects such as price-fixing and foreclosure of competing patents. The FTC and the DoJ do not reject the possibility of inclusion of substitute patents to amount positive effects on technology and economy. The FTC and the DoJ therefore apply an effects based analysis on patent pools, assessing the anti-competitive effects of inclusion of substitutable, non-essential patents and the efficiency gains of such pooling. Only in case of negative effects of inclusion of substitutable patents outweighing the positive effects, the patent pool will be regarded as infringing antitrust regulation.

Throughout modern case law the FTC has applied an essentiality test in its assessment of patent pools. The definition of essentiality has not been consistent in case law, but it is clearly stated that a patent regarded as

essential is presumed not to be substitutable. Still, even if an essentiality test has been applied throughout case law, there are no such requirements in law for essentiality in order for the pool to be legitimate.

5.2 Current Technological developments; Patent pools within Biotechnology

Patent pooling has up until now mainly been used within the sector of electronics industry, a sector where there are a large number of patents and industry standards usually are set. It has recently become apparent, due to the arisen demand for development within biotechnology and pharmaceuticals, that in order to quench the demand for vaccines and other medical products, patent pooling can be beneficial also within this sector. Pooling of patents is believed to increase the possibility of solving public health issues, such as development of malaria vaccine or SARS vaccine.¹¹⁹

A main issue for such pooling is the lack of standards within biotechnology and the pharmaceutical industry, due to less fragmentation in terms of components in production within these areas. The pharmaceutical industry has throughout history been defined by a model of one patent for one product, in contrast to the electronic industry where one product requires several patented components.

It is stated in the Commission Guidelines, article 211, that there is no inherent link between patent pools and standards. However, pools has in recent case law supported industry standards and the essentiality test has been applied in such a way that all patents considered essential for the compliance with a given standard has been regarded non-substitutable.

The lack of standards therefore makes determination of essentiality difficult, posing an obstacle to the formation of patent pools since the essentiality requirement has been made a general rule under EU antitrust regulation.¹²⁰ Adding to the problem is the fact that within many areas of biotechnological research the final products is yet to be developed, making determining of essentiality difficult.¹²¹

Still, there are several benefits of creating pools within this field of technology since blocking patents often hinder innovation. Many patents

¹¹⁹ Gaulé, P, (2006), p. 123-125.

¹²⁰ Ibid, p. 123.

¹²¹ Ibid, p. 128.

constitute basic building blocks necessary in order to move forward in pharmaceutical development. Cooperative efforts like pooling of patents can enable firms to benefit from the innovations of others and focus on further development, thus increasing the pace of innovation. Other benefits are also apparent, such as the reduction of transaction costs.¹²²

The main requirement, in order to enable patent pooling in the biotechnology- and pharmaceutical industry, is a less incriminating antitrust approach towards pooling of non-essential patents. Antitrust agencies must accept a change in the requirements of essentiality in order for pooling within biotechnology to be possible. Alternatively a special regulation or guidelines would be necessary in order to increase the pace of innovation within pharmaceuticals and other biotechnology development.¹²³

5.3 Presumption of market power

It has been clarified that the assessment of intellectual property rights, and the holding of such rights in terms of market power for the holder of such right, is different within the EU and in the U.S legal system. In the EU the holding of an exclusive right, such as an IPR, is regarded to amount to certain legal monopoly power due to the exclusive right inherent in a patent. Such presumption is not inflicted by the U.S Guidelines.

The difference might very well affect the assessment under the respective legal systems, since monopoly power will increase the risk of anti-competitive effects of joint licensing within an area of technology. The presumption of legal monopoly power in EU law most certainly results in a more restrictive approach to joint licensing between parties.

5.4 The Draft TTBER and Guidelines

The Commission has suggested a more lenient approach to patent pools in the draft for the updated TTBER and the Guidelines, suggesting a safe harbour to apply in regards of patent pools. According to the suggested Guidelines pools that are; *open to all patent holders, non-exclusive, ensuring the protection of sensitive information and the incentive to engage in further research and development* will fulfil the requirements for a safe harbour, solitarily if the pool also fulfils the requirement of including only

¹²² Clark, J, (2000), p. 8-9.

¹²³ Patrick Gaulé, p. 130.

essential patents. In case of a pool being given a safe harbour, the Commission suggests that a patent pool can be block exempted in similarity with other licensing agreement.

It is visible in case law and in the U.S Guidelines that the approach held by the FTC and the DoJ regarding antitrust regulation on patent pools is far less restrictive than the EU Commission's approach. The American Bar Association has suggested an even more lenient Regulation and Guideline in the matter than the current pair, as well as the two suggested by the Commission for 2014. The difference brought up by the Bar Association is the essentiality requirement applied by the Commission, stating that the effects based analysis applied by the U.S antitrust agencies is a better approach in order to account for the many positive economical effects of patent pooling.

The newly suggested safe harbour possibly widens the possibility for the creation of patent pools for firms within the EU, since pooling arrangements fulfilling the requirements will be block exempted from the application of article 101(1). However, this does not weaken the essentiality requirement. A possibility for a wider scope, making possible the inclusion also of non-essential patent is however implied by the Commission, according to Peter Alexiadis, read 3.5.

5.5 Conclusion

In order to make possible a wider scope for the use of patent pools, I suggest a change in the use of the essentiality requirement as a general rule in the Commissions antitrust assessment of pools. The current application of this rule may eliminate the possibility for patent pooling within sectors where industry standards are not applied due to the difficulty of establishing essentiality. The effects of the essentiality requirement are apparent within the biotechnology sector and the pharmaceutical sector, where there is no application of standards and no portfolio of patents determined in the preface of development.

Even so, there are obvious benefits of the essentiality requirement, since it ensures the avoidance of bundling of substitute patents and joint licensing of these at very high costs. Bundling of substitute patents is likely to have detrimental effect on competition and must therefore be cared for. However, I do not believe that such detriment shall be presumed, but rather evaluated in contrast to the benefits of the pooling arrangement. In cases where the

including substitute patents are necessary in order for the pool to function as intended, the purpose might outweigh the negative effects on competition. In my opinion an analysis in accordance with 101(3) TFEU, with no application of presumed anti-competitive effects would be suitable, in order to widen the scope of the antitrust assessment of patent pools. This would also bring the EU Commissions approach closer to the effects based approach held by U.S antitrust agencies.

The economical and technological benefits of research and development are vast, and methods strengthening these activities should be regarded as competition and welfare enhancing. Furthermore, technological development is largely beneficial for consumers, something that is the fundamental objective for both antitrust regulation and IPR. Arrangements supporting such effects should therefore be supported in law, to the largest extent possible. I believe that patent pools in many ways enable technological development by assembling patents and knowledge, making them accessible to actors within certain fields of technology. Patent pools also open up for new actors on the market to access current technology. Due to these reasons patent pooling must in large result in faster development and lowered costs for actors in technological sectors.

My suggestion for a future approach on patent pools in the TTBER and primarily the Commission's Guidelines is to evaluate the full necessity of the essentiality requirement. I do not suggest inclusion of patent pools in the TTBER in order to block exempt such agreement, but instead an adjustment of the current Guidelines.

I believe that the assessment of essentiality should be given a less determinative authority. The essentiality test must in all aspects still be applied since essentiality of included patents provides an indication of inclusion of substitutable patents. However, a more thorough analysis must be applied in order to establish the net effects of such inclusion. Additionally, essentiality must not be the only possible assessment of substitutability. Under circumstances where essentiality cannot be determined, the Commission must still be able to establish whether patents are substitutable or not. Without such analysis, patent pooling will not be possible in the sectors of biotechnology and pharmaceuticals, for instance.

The current application of the essentiality requirement, excluding all patents that are not regarded essential, is merely a way of excluding substitute patents, since essentiality is an indication of non-substitutability. U.S case law indicates that an effects based analysis shall be applied on patent pools including substitutable patents, since such inclusion might have positive

effects outweighing possible detriment on competition. U.S antitrust regulation is thus more lenient in terms of substitutable patents.

I suggest a change in the current EU practice of presuming anti-competitive effects from non-essentiality and substitutability of patents. In my opinion the application of an effect based analysis, fully in accordance with Article 101(3) TFEU, should replace the current general rule in the Guidelines. An analysis in accordance with Article 101(3) that evaluates the net effects of substitutable patents in patent pools will ensure that no detriment on competition will occur. Possible price-fixing, as well as other anti-competitive effects that can amount from joint licensing of substitute patents, will be cared for under article 101(3). A presumption that inclusion of substitutable (non-essential) patents will harm competition is therefore in my opinion redundant.

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