



FACULTY OF LAW
Lund University

Mathilda Engdahl

Innovation through collaboration
- An analysis of the EU competition policy
on patent pools

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Supervisor: Henrik Norinder

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Summary

Concepts such as creativity and innovation have never been more important than they are today. Increased innovativeness is believed to contribute to Europe's competitiveness on the world market as well as sustainability and job creation within the union. According to the EU, the way to success is to set up ideal conditions for innovation and nurture creativity through political support.

A patent pool is an arrangement where several rights holders assemble their patents and furthermore license the same as a package to the members of the pool, and/or to third parties willing to pay the royalty fee. Patent pools vary in their form and size and the motive behind them has evolved from the wish of avoiding litigation and accessing each others' respectively patents, to more modern incentives with the primary focus of collecting all relevant patents within a certain technical area.

From a competition law perspective, patent pools are in many ways perceived as promoters of innovation. Supposedly, pools reduce litigation costs, provide risk distribution and most importantly, clear the dense web of overlapping rights caused by the current patent system. These features all increase the incentives for and possibilities to innovate. However, pools are at the same time agreements between horizontal competitors and the collaboration can constitute collusive behavior, such as price fixing and collective bundling. The risk is that the pool increases royalty fees for licensees as well as forecloses third party technologies. For this reason, patent pools are assessed by the Commission under Article 101 TFEU.

This thesis questions whether competition policy is considerate enough to the special circumstances that surrounds agreements formed in the pooling context. By examining the policy, the author finds that the established safeguards can be questioned in terms of their efficiency. The reason for this is that the framework is shattered over several documents and the decisive distinctions are hard to perform. Also, the presumptions for what is and what is not an anti-competitive behavior can be criticized for not having the proposed effect in a pooling context.

Sammanfattning

Begrepp som kreativitet och innovation har aldrig varit så viktiga som de är idag. Ökad innovationskraft tros bidra till Europas konkurrensförmåga på världsmarknaden liksom till hållbarhet och fler arbetstillfällen inom Unionen. Enligt EU nås framgång genom att skapa ideala förutsättningar för innovation och att främja kreativitet med politiskt stöd.

En patentpool är ett arrangemang där ett flertal rättighetsinnehavare samlar sina patent och sedermera licensierar dessa som ett paket till poolmedlemmarna och/eller tredje man beredd att betala royaltyavgiften. Patentpooler varierar kraftigt i form och storlek och motivet bakom dem har utvecklats från önskan att undvika rättstvister och få tillgång till varandras respektive patent, till mer moderna incitament med huvudfokus på att samla alla relevanta patent inom ett tekniskt område.

Från ett konkurrensrättsligt perspektiv uppfattas patentpooler som något som i många avseenden gynnar innovation. Pooler påstås kunna minska rättegångskostnader, distribuera risk mellan poolmedlemmarna och viktigast av allt, reda ut det ogenomträngliga nätet av överlappande rättigheter orsakat av dagens patentsystem. Dessa egenskaper leder alla till ökade incitament till och förutsättningar för innovation. Pooler är dock samtidigt avtal mellan horisontella konkurrenter varför samarbetet kan utgöra klandervärd beteende såsom en priskartell eller kopplingsförbehåll av typen bundling. Risken är att poolen leder till ökade royaltysatser för licenstagarna samt försvårar etablerings- och utvecklingsmöjligheterna för konkurrenter. Av denna anledning utvärderas patentpooler av Kommissionen inom ramen för artikel 101 FEUF.

Denna uppsats ifrågasätter huruvida det konkurrensrättsliga regelverket är tillräckligt hänsynstagande till de speciella omständigheter som omger avtal slutna i poolingsammanhang. Genom att undersöka regelverket kommer författaren fram till att verkningskraften av de etablerade garantierna kan ifrågasättas. Anledningen till detta är att regelverket är splittrat mellan flera dokument och de avgörande distinktionerna är svåra att utföra. Dessutom kan presumtionerna för vad som utgör och inte utgör ett konkurrensvidrigt beteende kritiserats för att inte ha den effekt de tillskrivs i ett poolingsammanhang.

Abbreviations

AmCham	American Chamber of Commerce
CFI	The European Court of First Instance
DOJ	United States Department of Justice
ECJ	European Court of Justice
EU	European Union
FTC	Federal Trade Commission
IPR	Intellectual Property Right
ISO	International Organization for Standardization
JV	Joint Venture
OECD	Organization for Economic Co-operation and Development
R & D	Research and Development
SSO	Standard Setting Organization
TFEU	Treaty on the Functioning of the European Union
TTBER	Technology Transfer Block Exemption Regulation
TT Guidelines	Technology Transfer Guidelines
US	United States of America
WHO	World Health Organization

1 Introduction

1.1 Background

Concepts such as creativity and innovation have never been more important than they are today. The intense economic globalization has raised the question of Europe's competitiveness towards other world actors. From an EU perspective, it is believed that increasing the innovativeness will contribute to greater competitiveness as well as sustainability and job creation, aims that, in the wake of the financial crisis and subsequent economic slowdown, are particularly prioritized. The way to success is by setting up ideal conditions for innovation and nurture creativity through political support.¹ Simultaneously, the EU highlights competition as a factor creating the best conditions for innovation as it stimulates entrepreneurship and improves efficiency. For this reason, strong competition policy and enforcement are essential building blocks in the reconstruction of the economy.²

The core values of innovation and competition are two expressions of the same object, namely the wish to secure a workable competition within the internal market to consumers' welfare and to the benefit of the European society as whole. In most cases, the protection of one entails the protection of the other. However, experience tells us there are situations where it has to be determined which of the two values and the legal framework that comes with it, is to prevail over and to the detriment of the other.

The granting of intellectual property rights to an innovator offers an example. The rights holder, often a private actor, is granted the exclusive right to exploit the innovation and can in this respect be seen as holding a monopoly on this invention, protected by the freedom of contract to license as he pleases. At the same time, competition law endeavors to create a market where no player is able to, independently or in collaboration with others, act autonomously of its competitors.

Patent pools bring the matter to a head. Here, not one but two or more actors, with the exclusivity derived from their IPRs, join forces and begin to act together on the market. The warning bells of competition law immediately start to ring. However, when considering that these arrangements could help loosen up stagnated markets where overlapping patent rights preclude all action, the pools could potentially work in favor of competition. The key question is whether the collaboration has such pro-competitive motives or effects or if it is really an arrangement with the scheme of strengthen strong rights even further.

¹ COM(2009) 442 final, p. 3. Barroso, Welcome Speech for the European Year 2009 of Creativity and Innovation.

² SWD(2012) 141 final, p. 3.

The area of patent pools is not regulated by law but by some Commission's guidelines. Although guidelines are not binding per se, they offer great insight in the Commission's general view on patent pools as well as indicates how pools would be assessed should they be before the court. When analyzing the current policy, a natural starting point is therefore to examine and question these guidelines.

1.2 Purpose

The purpose of this thesis is to examine the current and recently proposed competition law policy towards patent pools in order to answer the following questions:

- What conditions must be met for patent pools to be compatible with EU antitrust legislation?
- Are the established safeguards efficient in neutralizing the anticompetitive risks associated with patent pools?
- Does EU competition law policy sufficiently promote the formation of patent pools?

Should the answer to the two latter questions be in the negative, the essay will ultimately offer an opinion on what actions could be taken for the answer to change to the opposite.

1.3 Method and Material

The subject of this thesis is approached by using a legal dogmatic method. In this aspect I refer to the investigation of applicable law in a specific area, namely that of patent pools, in order to determine how the rules are composed and how they can be expected to be applied by a court of law. Apart from current regulations and the Guidelines on the application of Article 81 of the EC Treaty to technology transfer agreements, I've examined preparatory works in the form of official documents leading up to the recently proposed framework.

As case law dealing with the matter is practically absent and closely related cases are many and diverse,³ I've chosen to complement my study by also examining some competitions authorities' decisions, as these are, although not redundant in their amount, more common.

Doctrine has further been investigated to earn a theoretical point of view. The authors, Carlson, Lerner, Merger and Tirole to mention a few, are chosen on the premise that they are the leading names on the subject. Additionally, the study ordered by the Commission and carried out by

³ Regibeau and Rockett, p. 1.

Regibeau and Rockett has also been frequently used. In this regard it should be mentioned that the literature dealing with the subject historically have focused on pools as a legal institution and that there is almost no empirical work on the matter. Also, some aspects of patent pools have gotten more attention by the scholars than others. For this reason, although the thesis attempts to paint the whole picture of the framework for patent pools, the different parts might not always be so balanced as one might wish.

Although this thesis does not aspire to be a comparative study, recourse will be taken to the US. The reason for this is that vast amount of the literature on the subject is written by US scholars discussing the American framework. Also, decisions from US competition authorities will be examined as the amount of material from the European Commission is limited. When mentioning US guidelines it is with the intention to put the European policy in perspective rather than to compare it with its US counterpart. Since comparative method is not used per se a more thorough description of US competition law will not be accounted for.⁴

1.4 Delimitations

When questioning the rationale for, and efficiency of, the current framework it is important to understand why the law looks the way it does. Since many of the provisions are founded on economic theory, the thesis will apply some law and economics aspects. The intention is, where possible, to identify which economic considerations the legislator has taken into account when creating the current norms, and whether these considerations can be questioned. The amount of theoretical economic literature is extensive, especially since a newfound interest in patent pools has arisen as a response to the intense theorizing about patent thickets and royalty stacking. The empirical literature however, just like the legal doctrine, is still quite sparse.⁵ For this reason, the literature will offer help for understanding the rationale for the provisions, but will be of limited importance when evaluating the efficiency of the norms.

Furthermore, even though a more comprehensive law and economics approach, where the incentives and disincentives for companies to participate in patent pools were properly examined, would be of interest this must however be delimited. Some incentives will be revealed in the thesis' section on historical and modern patent pools but then with the aim of describing the diversity of motives for patent pooling rather than studying the companies' actual business considerations.

⁴ For further reading, see *Antitrust Law Developments* 7th ed. by ABA (2012) for a general overview or *Antitrust law: an analysis of antitrust principles and their application* by Phillip E. Areeda (1978) or *The Antitrust Enterprise - Principle and Execution* by Herbert Hovenkamp (2008) for a more analytical approach.

⁵ Lerner, Strojwas and Tirole, p. 617.

As earlier mentioned, the attention of this thesis evolves around the competition law concerns of agreements setting up patent pools. Contract law specific questions will be left aside although a complete avoidance of contractual aspects would be impossible when examining the licensing agreement. The same can be said about intellectual property law. The latter will only briefly be touched upon when discussing the specific nature of patents as property and the difficulties this entail.

The thesis will exclusively investigate the European legal framework on a Union level. Due to the harmonization of competition law, national competition legislation basically reflects union in full, and a comparison between the different countries would therefore be of small value. In addition, as companies involved in patent pooling often are big players on the market and active in several countries, they are likely of fulfilling the trade criterion. This fact also supports the investigation of law on a union level.

All types of intellectual property can be subject for cross-licensing or pooling. This is the reason for why the European Commission has chosen to use the wider concept *technology* pools in their documents. This thesis will nevertheless be limited to discuss pools of *patents*. Patents have throughout the history shown to be the most common subject for pooling and are especially interesting to analyze as society stands a lot to gain, and loose, from the creation and operation of them.

The reader of this thesis is assumed to have certain knowledge about competition law as well as a basic understanding for intellectual property and contract law. Even so, it should at the outset be mentioned that this thesis is of extensive technical nature. This is inevitable when examining law dealing with patents, as legal and technical aspects are closely intertwined. In addition, competition law adds economic aspects on this, making the picture even more complex. As the thesis in some parts will feel far from a traditional legal analysis, bear in mind that this complexity is the reality for judges and competition law authorities applying the framework.

1.5 Outline

Chapter two will start out by defining some principal and to them closely related concepts vital for the competitive evaluation of patent pools. In the same chapter a brief description of the evolution of the phenomenon is also offered.

Following this, chapter three discusses the pro-competitive aspects, in terms of promoting innovation, of patent pools. Here, the theoretical position that patent pools in general is a pro-competitive phenomenon, is laid out. This presumption will be of importance throughout the essay.

The major section of this thesis, the analysis of the framework, then follows in two parts. Chapter four starts out by investigating the *pooling agreement*, i.e. the agreement between rights holders to pool their patents and the conditions for their mutual collaboration. Chapter five then deals with the *licensing agreement*, the agreement between the pool and third party regarding the licensed package of technology. Although the two in practice most likely are seen as one, and by this in possession of many common features, the distinction between them are made for pedagogical reasons as different provisions apply. This means that some general aspects initially clarified in chapter four concern both types of the agreement whereas chapter five will focus solely on the special characteristics of the licensing agreement. Both of the two chapters will culminate in a discussion on the rationale and justification of applicable provisions.

Ultimately, the summarized findings as well as answers to the questions initially posed will be presented in chapter six.

2 The patent pool

2.1 What is a patent pool?

There is no universally accepted definition on what constitutes a patent pool. One description, frequently used in US doctrine, is that of Klein, explaining a patent pool as:

...the aggregation of intellectual property rights which are the subject of cross-licensing, whether they are transferred directly by patentee to licensee or through some medium, such as a joint venture, set up specifically to administer the patent pool.⁶

In simpler terms, a patent pool is an arrangement where several rights holders, each in possession of a patent, collect these in either one of the participating companies or in a new independent entity created for this purpose. The assembled group of patents is furthermore licensed as a package to the members of the pool and/or to third parties willing to pay the royalty fee. The participants agree on the terms and fees for the package license and establish the valuation mechanism for the dividing of royalties.⁷ Patent pools vary in their form and size ranging from simple arrangements between a few parties to industry-wide institutions with dozens of members and an immense number of patents.⁸ Despite this, patent pools share, according to Merges, one fundamental characteristic:

...they provide a regularized transactional mechanism in place of the statutory property rule baseline which requires an individual bargain for each transaction.⁹

The closely related term cross-licensing refers, as the name suggests, to a reciprocal arrangement whereby two parties, through two independent licensing contracts, grant and receive licenses to each others' patents.¹⁰ In contrast to the patent pool, the idea is not to license the patents to third parties but to get access to the other party's patent which might be crucial for the possibility to produce, manufacture or sell a certain product. Instead of ceasing production or, in the case of possible infringements engage in costly litigation, the rights holders join forces through a cross-license and are able to carry on with their business.¹¹

History tells us that both types of agreements, patent pools and cross-licenses, have been the form for pooling collaboration. As shall be discovered, US antitrust law deals with the two as a group and the

⁶ Klein, p. 4.

⁷ Shapiro, p. 127.

⁸ Merges (1999), p. 18.

⁹ Merges (1996), p. 1342.

¹⁰ Carlson, p. 369.

¹¹ Shapiro, p. 127.

contractual solution, cross-license or patent pool, is then of minor importance.¹²

In contrast, the distinction is important in the EU as it has effects of substantial law. The categorization between the two should therefore be born in mind.

2.2 Closely related concepts

2.2.1 R&D and Joint ventures

There are other forms of collaborations with features resembling those of patent pools. Joint ventures as well as more comprehensive R & D projects can be seen as forms of pooling.¹³ These types of collaboration differ from pooling in that the agreement is entered into *ex ante* with the aim of developing the product or technology, or carrying out the project, together. When entering into a pooling agreement this is made *ex post* the development, when the innovation already exists. JV and R & D are not covered by the same framework as the one for patent pools. For the joint licensing of cooperative R & D-results this has always been controversial.¹⁴ However, when a JV collects patents and later engages in licensing of them to third parties, and the activity is not linked to production by the JV, this is considered to be a patent pool.¹⁵

2.2.2 Standards

Standard setting is another form of activity that co-exists and to large degree also cooperates with patent pools. A technology standard is a norm or demand established on a national or international level,¹⁶ which describes a technical solution or certain technological criteria, methods, processes or routines. The standard is often specified in a formal document or exists as a *de facto* standard where a company's product or technology has become so generally accepted that others choose to adapt to it. The general purpose of standardization is to facilitate for consumers as well as to coordinate development and rationalize production. A well-known example of standardization is the industry for car components, another the telecom business where participating companies are trying to achieve compatibility on a global market through a common framework.¹⁷

Many of the modern patent pools are creating or supporting a standard.¹⁸ When the pool gives rise to a standard, this calls for additional concerns as it

¹² Carlson, p. 369.

¹³ Lidgard, p. 291.

¹⁴ Ullrich, p. 9.

¹⁵ TT Guidelines, para 58.

¹⁶ For example the GSM standard for mobile communications.

¹⁷ Svenskt näringsliv, p. 27.

¹⁸ See for example the DVD-3 Business Review Letter.

means that the pool owns and controls those essential patents required to carry out the technology behind the standard. By doing this, the market power of the pool is considerably stronger.

2.3 Nature of pooled patents

As shall be discovered, the pooled patents' relationship to each other as well as to patents outside the pool is of fundamental importance from an antitrust perspective. A distinction is made between competing and complementary patents as well as between essential and non-essential patents.

2.3.1 Competing and complementary patents

Regarding the relationship between patents within the pool, *competing patents* or *substitute patents* are patents that are substitutable for a consumer on the market, thereby making the rights holders competitors on that same market. Competing patents appear when an inventor introduces a totally new product or process or invents around existing patents by modifications.¹⁹

The opposite of the above-mentioned are the *complementary patents*. Here, the rights holders each have patents that are independently crucial for the consumer as access to all complementary patents is necessary for anyone interested in exploiting the underlying product or process.²⁰ The rights holders are not seen as competitors on the same market because the patents are not substitutable. Complementary patents can also be *blocking patents*. This blocking situation emerges when a licensee develops or improves an already patented product or process further. The improvement patent can earn protection but will be seen as subservient to the original pioneer patent. The improvement patent cannot be exploited without infringing upon the pioneer patent and likewise the pioneer patent cannot be developed in the form of the improvement patent without permission.²¹ When the improvement patent and the pioneer patent are in the hands of different rights holders this can lead to hold-up problems if the rights holders cannot settle. The case *Line Material*²² offers a practical example. The dominant patent was in this case a dropout fuse cutout, a product useful for protecting an electric circuit from the dangers caused by a short circuit or other overload. The subservient patent covered a housing suitable for the cutout. Dropout fuse cutouts could be used without any housing whereas the housing would be useless absent the cutout.

¹⁹ Carlson, p. 365.

²⁰ Carlson, p. 365.

²¹ Carlson, p. 363.

²² United States v Line Materials Co.

2.3.2 Essential and non-essential patents

The second distinction regards the pooled patents position towards the market as a whole. *Essential patents* are patents that are necessary for the production of the underlying product or process and for which there are no substitutes neither inside nor outside of the pool. *Non-essential patents* are determined negatively. Essential patents are by default also complementary.²³ The same is not true for the opposite; technologies can be complementary without being essential, for example when it is possible to produce the product without access to the other party's product but access to it enables better or cheaper products.²⁴

2.4 The evolution of patent pools

In order to get a more hands-on understanding of what a patent pools are and the reason for their being, the following section offers a short description of some prominent examples of pools representing the evolution of them. As shall be seen, the motives for their creation vary, as do their instigators.

2.4.1 Historical patent pools

The phenomenon of rights holders collaborating through pooling arrangements is far from new. The history of patent pools dates back to the 19th century, not long after patent as a statute had been introduced in national legislation over the world.

The first known patent pool was created in 1856 between three American sewing machine manufacturers, I.M. Singer Co., Wheeler & Wilson Co. and the Grover & Baker Co., who after years of suing each other for patent infringements decided to join forces by creating the pool *The Sewing Machine Combination*.²⁵ The main motive for the agreement, common for many of the early pools, was the wish to avoid further litigation²⁶ and the pool embodied the settlement. An additional advantage was the access to each other's technology. When all the patented technologies could be put into a single machine, the members were able to design and market the first sewing machines for home use.²⁷ Also, the pooling and licensing of the patents as one single package gave the pool members freedom to decide the royalty fees collectively instead of competitively.²⁸ The Sewing Machine Combination sustained prices on an artificially high level. This was shown

²³ TT Guidelines, para 216.

²⁴ Regibeau and Rockett, p. 18.

²⁵ Serafino, p. 3.

²⁶ Merges (1999), p. 19.

²⁷ Serafino, p. 3.

²⁸ The federal legislation in the US, the Sherman Antitrust Act, prohibiting cartels was not put in force until 1890.

by the fact that I.M. Singer on the day for the expiration of the patents had to cut prices by 50 % in order to compete on the open market.²⁹

Governmental powers have also shown interest in the formation of patent pools, sometimes through encouragement and sometimes even by use of force. In 1917 two airplane manufacturers, Glenn Curtiss and the Wright brothers, held most of the essential patents for components on the relevant market. Due to their position, they were able to charge high royalty fees for their technology. Both of the companies guarded their position through intense litigation against each other as well as other manufacturers.³⁰ The situation at hand regarding the validity and ownership of important aeronautical patents was chaotic and resulted in serious delay in the manufacture and development of the aircraft industry just as the US was preparing to enter World War I.³¹ For this reason, a National advisory committee recommended the formation of a patent pool, the *Manufacturer's Aircraft Association*, that would create a cross-license between all aircraft manufacturers. The pool initially involved eleven members but pretty soon expanded to include all manufacturers of aircraft purchased by the federal government. The pool solved the situation with a stagnated market in order for more planes to be manufactured. Another effect of the pool was the impact on royalty fees as prices dropped drastically low. The price reductions were however to large degree a response to the governmental threats to acquire the patents by eminent domain.³²

The US government was also a strong force behind the pool *Radio Corporation of America* established in 1917. Here, the main motivation for the pool was to terminate foreign control over the US radio industry and by this excluding foreign manufacturers and operators from a key military technology. The company GE was therefore encouraged by Franklin D. Roosevelt through the Navy, to buy out the US branch of the foreign-owned company Marconi and pool patents from several companies such as Marconi, American Telephone & Telegraph (AT&T), Telefunken and Westinghouse. The RCA and GE then entered into a cross-license agreement, respectively granting each other access to their radio patents.³³

2.4.2 Modern patent pools

As time has passed and with the intense development of the technological industry, new incentives for pooling technologies have been exposed. Patent pools have grown to become an economically significant institution. This is vouched for by Lerner and Tirole who mentions a recent estimate which

²⁹ Serafino, p. 3.

³⁰ Serafino, p. 15.

³¹ Serafino, p. 16.

³² Serafino, p. 16.

³³ Serafino, p. 17.

suggest that sales in 2001 of devices based in whole or in part on pooled patents were at least 100 billion dollars.³⁴

While earlier pools were mainly motivated by the wish of avoiding litigation and accessing each others' patents in order to resume or start production, one of the more modern incentives has been to collect all the relevant patents and other IPRs within a certain technical area in a pool. The reason for doing this is that the members then can share the litigation costs as well as royalties. The assumption is that consumers are more likely to license the package if all technologies necessary are offered. In addition, for companies interested in creating a standard, this solution is especially attractive. An example of these more modern motives is the *MPEG-LA patent portfolio*³⁵ established in 1997. The pool was created with the purpose of offering a one-stop shop for necessary licenses for the use of MPEG-2 technology – a video compression technology making videos available over lower bandwidth carriers due to easier and faster transmission. The technology had two years earlier been adopted as a standard and was recognized by the ISO.³⁶ A similar example is Bluetooth technology that originally started out as a patent pool project in 1998. The technology allows the interconnection of mobile devices through short-range radio frequency band. The *Bluetooth Special Interest Group*³⁷ owns and markets their brand as well as licenses the technology to more than 7000 companies involved in the making, manufacturing and selling Bluetooth-enabled products. The pool has as its mission statement to:

...strengthen the Bluetooth brand by empowering pool members to collaborate and innovate, creating the preferred wireless technology to connect diverse devices.³⁸

In other words, the pool's intention is to establish a standard and allow easy ways of access to the technology.³⁹ The standard setting aspect's importance in the pool formation is supported by Layne-Farrar and Lerner who declare that nearly all modern patent pools have formed out of standard setting efforts.⁴⁰

Another modern phenomenon is the open pools where the rights to a technology, often not in the right holders' core business, is released free to contribute to the spread of knowledge and further development. An example of this was the pool *Open Invention Network*⁴¹, established 2005 for the development of the operative system Linux. Linux is a free software and open source document where the source code is available for anyone to download, modify and re-issue. The pool's vision is to ensure:

³⁴ Lerner and Tirole (2008), p. 158.

³⁵ See www.mpegla.com.

³⁶ Serafino, p. 17.

³⁷ See www.bluetooth.org.

³⁸ www.bluetooth.org/en-us/members/about-sig-overview.

³⁹ Serafino, p. 18.

⁴⁰ Layne-Farrar and Lerner, p. 294.

⁴¹ See www.openinventionnetwork.com.

...the openness of the Linux source code, so that programmers, equipment vendors, ISVs and institutions can invest in and use Linux with less worry about intellectual property issues. Its licensees can use the company's patents to innovate freely. This makes it economically attractive for companies that want to repackage, embed and use Linux to host specialized services or create complementary products.⁴²

The motive behind the pool must be understood as facilitating innovation for anyone able to make use of the technology.⁴³

Patent pools are today well established in basic manufacturing and electronic industries, but have in recent years also started to conquer ground in the biotechnology related areas as a solution to patent issues.⁴⁴ In the biomedicine area several pharmaceutical companies have collected patents in the *UNITAID patent pool* with the aim to facilitate access, increase supply and lower the prices of essential medicines against HIV/Aids, malaria and tuberculosis, in developing countries.⁴⁵ UNITAID is a drug purchase facility created by a number of countries and hosted by WHO.⁴⁶ The development of biomedical patent pools as an area for future research was acknowledged by OECD in 2002.⁴⁷

Closely related are the pools covering agricultural technologies. One example is *PIPRA*, Public Intellectual Property Resource for Agriculture,⁴⁸ an initiative founded in 2001, aimed at making agricultural technology more easily available for the development and distribution of subsistence crops into the developing world. PIPRA is exploring the possibilities for developing a patent pool to give biotech crop researcher greater freedom to operate. The belief is that creating a collective public IP asset base to make complementary technologies available should significantly reduce the transaction costs now associated with negotiations and help public sector researchers to obtain freedom to operate in crop biotechnology.⁴⁹

Where the evolution of pooling arrangements will head next, only future can tell. It is however clear that the area is under constant progress. A brand new initiative called the *Intellectual Property Exchange (IPXI)* markets itself as the world's first financial exchange for non-exclusive licensing and trading of IPRs. IPXI offers their product, the Unit License Right (ULR), at market based prices and standardized terms.⁵⁰ The aim is to increase transparency and efficiency on the market. The DOJ delivered a Business Review Letter in March 2013, stating that the lack of knowledge about the inherent uncertainties and potential competitive concerns associated with IPXI's novel business model makes it too soon to conclude that the activities will not raise competitive concerns. The initiative has for this reason not been

⁴² www.openinventionnetwork.com/about.php.

⁴³ Serafino, p. 28.

⁴⁴ Lerner and Tirole (2008), p. 158.

⁴⁵ www.unitaid.eu.

⁴⁶ Serafino, p. 34.

⁴⁷ Lerner and Tirole (2008), p. 158.

⁴⁸ See www.pipra.org.

⁴⁹ Serafino, p. 32.

⁵⁰ See www.ipxi.com.

cleared.⁵¹ Although IPXI is not a patent pool in the proper sense of the word, the initiative testifies about the industry's curiosity in new forms of collaboration regarding IPRs.

⁵¹ IPXI Business Review Letter.

3 Patent pools as promoters of innovation

The competition law framework governing pools has the aim of ensuring that only welfare enhancing versions are formed. In the provisions, some of the pools potential advantages are accounted for but most of them really deal with the anti-competitive characteristics of the arrangements. For this reason the following chapter will, before moving on to the scrutiny of the framework, discuss potential benefits of pool formation in order to understand why they should be promoted at all.

3.1 Clearing the patent thicket

Patent pools are often suggested as a solution to the existing patent thicket. For society as a whole, a pressing situation is when existing patents have the power to prevent the emergence of another. Today we are facing a complex situation where ownership is shattered between numerous rights holders with overlapping patent rights. This means that actors wanting to commercialize an underlying product need to obtain licenses from all relevant rights holders. Shapiro refers to the situation as our patent system creating a *patent thicket*:

A dense web of overlapping intellectual property rights that a company must hack its way through in order to actually commercialize new technology.⁵²

The overlap can take different forms. One example is when several patents are essential for the commercialization of a given product as they might cover different aspects of the technology required.⁵³ Another type of overlap is when patents are mutually blocking⁵⁴ and access to another company's patent is technologically necessary. A third possibility is when uncertainty about the nature of the patent as blocking or not, the access to the other firm's patent, though not technologically necessary, required if the firm wants to proceed under conditions of legal certainty.⁵⁵ The situation is more pressing than ever as the past two decades give evidence of an explosion of patent grants across many industries and a dramatic increase in the volume of patent litigation between rivals.⁵⁶

Overlapping rights lead to several problems. Heller and Eisenberg⁵⁷ suggest through their theory "the tragedy of anti-commons"⁵⁸ that where too many

⁵² Shapiro, p. 120.

⁵³ Regibeau and Rockett, p. 13.

⁵⁴ Lerner and Tirole (2008), p. 157.

⁵⁵ Regibeau and Rockett, p. 13.

⁵⁶ Lerner and Tirole (2008), p. 157.

⁵⁷ Heller and Eisenberg, p. 698.

actors are granted ownership of a scarce resource and have the possibility of excluding others from using it, the resource is likely to be underused. The reason is that actors must bargain in order to bundle the numerous rights, which can prove difficult as they represent different interests and therefore is likely to fail.⁵⁹ The patent thicket consequently leads to a hold-up problem in terms of innovation, making it difficult for inventors to move technology forward.⁶⁰ Furthermore, the process of bargaining licenses from multiple licensors means transaction costs as well as the end price of aggregated royalties paid is higher than it would if fewer licensees were needed. According to Shapiro's dystopian prediction, where cumulative innovation and multiple blocking patents are at hand, strong patent rights can have the opposite effect of stifling, not encouraging, innovation.⁶¹ Several are the commentators who believe patent pooling significantly contribute to the cutting through of the patent thicket, although involving some transaction costs.⁶² Some commentators however argue that the seriousness of the patent thicket should not be overrated. For example, Regibeau and Rockett question the true extent of the problem as the prevalence of thickets is very even across sectors and the lack of empirical work makes it impossible to determine the size of inefficiencies associated with the patent thickets.⁶³

Nevertheless, the patent thicket is considered to be one of the most crucial IP issues of today and the discussion on how to effectively clear it has taken on speed.⁶⁴ One suggestion for clearing the thicket is reform of the current patent legislation, or at least the application of it, so that patentability criteria are raised, making it harder to be granted a patent right.⁶⁵ As this would be a overwhelming and time consuming project, patent pools, and a more informed competition law attitude towards them, is an especially attractive alternative.⁶⁶

3.2 Other features promoting innovation

Apart from being a solution to problems derived from the patent thicket, there are other features of patent pools supposedly working in favor of innovation and by this serving as a motive for the promotion of them.

The *reduction of litigation costs* is one of these features. As familiar, lawsuits cost time and money, that absent the dispute could be spent on a company's actual business. Patent litigation trials are common and tend to

⁵⁸ The more known economic theory "tragedy of the commons" expressed by G. Hardin in 1968 which suggests that where multiple owners all have the right to use a resource and no one the right to exclude others from using it the resource tend to be overused.

⁵⁹ Heller and Eisenberg, p. 701.

⁶⁰ Lerner and Tirole (2008), p.157.

⁶¹ Shapiro, p. 120.

⁶² See for example Merges (1999), p.17 or Shapiro, p. 119.

⁶³ Regibeau and Rockett, p. 17.

⁶⁴ Regibeau and Rockett, p. 16.

⁶⁵ Regibeau and Rockett, p. 16.

⁶⁶ Regibeau and Rockett, p. 16.

be exceptionally time-consuming, expensive and also a risky project for the parties. This has to do with the particular difficulties that judges and juries face when handling complex technical matters. In addition, both parties are at risk of a judge invalidating their patents.⁶⁷ If choosing to settle through a patent pool, this means the guesswork of the judges related to the scope of the patentees IPRs can be avoided.⁶⁸ Also, it enables the parties to focus on their business and further innovation instead of battling each other to the ground. The pooling option is especially attractive for smaller companies lacking the economic strength for prolonged litigation. This way, they may have a better chance of surviving should an infringement issue emerge.⁶⁹ It should however be remembered that pools as means for settlement will only cease the proceedings between the members of the pool. Litigation is still likely to continue with rights holders outside the pool and the fact that the pool members now have joined forces, and share the costs, will build up to a big advantage towards independent players outside the pool.⁷⁰

Another disincentive for innovation is the extensive risk associated with it. Engaging in lengthy R & D projects can be the thing that makes or break the company. Pools may in this regard provide incentive to innovate by creating a mechanism for participants to *distribute the risks* of technology ventures. The sharing of both costs and benefits increases the likelihood for all participants to recoup the investments made during the development, making companies more keen on engaging in such activities. As Carlson reasons this should however be considered a secondary motive to pool formation, bearing in mind that patent pools are more common in the electronics market and rarer in the biotechnology, where the risks of failure as well as potential gains are high.⁷¹

The patent pool can also promote innovation by *countering spillover effects*. An aspect of R & D projects is that the inventing company always has to expect certain amount of knowledge spilling out of it to the public, which could potentially benefit competitors. This would in turn decrease the incentive to engage in innovative activities. With pools, all members are both producers and receivers of information making the possible spillover effects less severe and innovators not as hesitant towards projects aimed at furthering innovation.⁷²

3.3 General view on patent pools

The general view on patent pools seems to be one where consensus rules that patent pools have a lot of beneficial effects in their potential of furthering innovation. As Merges puts it:

⁶⁷ Carlson, p. 380.

⁶⁸ Carlson, p. 381.

⁶⁹ Carlson, p. 381.

⁷⁰ Carlson, p. 380.

⁷¹ Carlson, p. 382.

⁷² Carlson, p. 382.

When they are not being used as a cover for a cartel, they add significantly to the efficient operation of the patent system, as many industries have discovered over time.⁷³

For this reason, Merges believes that the optimal policy towards patent pooling, is not one with a total *laissez faire* attitude but neither should it discourage all pools.⁷⁴ Accordingly, it would make sense for the government to contribute to the formation of pools and other exchange mechanisms, as this would give the government the possibility of preventing the more obvious misuses of the arrangement. At the very least Merges stresses, the policy should be neutral when an industry proposes the formation of a patent pool.⁷⁵ Shapiro argues that antitrust law and enforcement should be more sensitive to the problems posed by the patent thicket, as it otherwise will slow down commercialization and ultimately retards innovation – the opposite of the intent of both the patent laws and the antitrust law.⁷⁶ Regibeau and Rockett, being more skeptical to the thicket, believe it is too early to systematically weaken the traditional “safeguards” that competition law imposes on patent pool agreements. In their opinion, leniency should require a demonstration of actual thickets that would be cleared by the agreement and even possibly some evidence of the benefits involved in clearing them.⁷⁷

⁷³ Merges (1999), p. 17.

⁷⁴ Merges (1999), p. 43.

⁷⁵ Merges (1999), p. 43.

⁷⁶ Shapiro, p. 122.

⁷⁷ Regibeau and Rockett, p.17.

4 The pooling agreement

4.1 General about the framework

Ensuring effective competition is a fundamental principle and key factor in establishing an internal market, hence one of the Unions primary commitments.⁷⁸ The principal tool for combating anti-competitive behavior can be found in TFEU where Articles 101 and 102 expressly prohibit certain conduct that would affect competition in a negative way. The Commission is granted authority to investigate and, for the purpose of bringing an infringement to an end, impose any behavioral or structural remedies proportionate and necessary on involved undertakings.⁷⁹ Article 101 is the main provision for patent pools since they essentially consist of agreements between undertakings. However, it is thought that where a pool supports an industry standard, the members of the pool may be treated as jointly dominant, making Article 102 applicable.⁸⁰ Agreements fulfilling the prerequisites in Article 101 must, in order to be found acceptable, reach the safe harbor of a block exemption regulation or individual exemption under Article 101(3).

The licensing agreement is, from a competition law perspective, somewhat of an odd bird. The categorization of it as a vertical or horizontal collaboration is not self-evident, making the choice of applicable law rather complex. If a rights holder, in addition to his own production and sales, grants an independent middleman the right to use or sell the product or service, the agreement is of vertical nature and the 2010 Regulation on Vertical agreements is applicable.⁸¹ In contrast, if the rights holder, apart from his own production, transfers the right to produce to another undertaking, then the agreement should be seen as horizontal, making the TTBER applicable.⁸²

When dealing with licensing agreements for intellectual property they are seen as the latter and, for reasons relating to their specific nature, relieved through the block exemption TTBER from the application of Article 101 on the grounds that they promote innovation and development and consequently are pro-competitive. However the TTBER expressly exclude agreements for the pooling of technologies with the purpose of licensing the created package of IPRs to third parties i.e. patent pools.⁸³ The reason for this is that pooling arrangements give rise to a number of particular issues regarding the selection of the included technologies and the

⁷⁸ TEU, Article 3.3.

⁷⁹ Regulation 1/2003, Article 7.

⁸⁰ Korah, p. 115. This thesis will not further develop the aspects of Article 102.

⁸¹ Regulation 330/2010. Lidgard (2011), p. 184.

⁸² Lidgard (2011), p. 184.

⁸³ TTBER, recital 7.

operation of the pool, which do not arise in the context of other types of licensing.⁸⁴

Given that neither the TTBER nor any other block exemption is applicable to patent pools, agreements establishing pools must either be found as being outside the scope of Article 101 or, if failing in this aspect, meet the criteria of an individual exemption in Article 101(3). The Commission has issued guidelines to provide guidance on the application of Article 101 as well as the TTBER. The Guidelines shall be applied flexibly and reasonably, not mechanically, and each case assessed on its own facts.⁸⁵ The Guidelines confirm that the TTBER does not cover patent pools as these agreements do not concern licensing of the production of contract products, i.e. products incorporating and produced with the licensed technology.⁸⁶

As the current TTBER with accompanied Guidelines will expire on 30 April 2014, the Commission has, as part of its revision of the current framework, commissioned a study and consulted stakeholders on the application of the current regime. A majority of the stakeholders considered the present system as largely satisfactory. The comments that were given focused on the scope of the TTBER, market thresholds and patent pools as well as hardcore restrictions, grant-back provisions and cross-licensing.⁸⁷ The Commission presented their proposal for revised TTBER and Guidelines on the 20th February 2013 with the aim “to strengthen incentives for research and innovation, to facilitate the diffusion of intellectual property and to stimulate competition”.⁸⁸ The most substantial changes proposed in the draft have been made in the sections on settlement agreements and technology pools.⁸⁹

The section in the Guidelines covering patent pools, paragraphs 210 – 235, can be divided as they distinguish between, and deal separately with, two different features of patent pools. First, there are the provisions regulating the agreement between rights holders to pool their patents and the conditions for their mutual collaboration, further referred to as the *pooling agreement*. Secondly, there are provisions governing the licensing agreements, which the pool enters into with third parties henceforth called the *licensing agreement*. The following analysis will employ the same distinction and the provisions will be assessed one by one.

⁸⁴ TT Guidelines, para 212.

⁸⁵ TT Guidelines, recital 3.

⁸⁶ TT Guidelines, para 41.

⁸⁷ MEMO/13/120, p. 2.

⁸⁸ IP/13/120, p. 1.

⁸⁹ MEMO/13/120, p. 4.

4.2 The patent pool concept

The Guidelines start out by distinguishing a patent pool. According to the offered definition patent pools⁹⁰ are:

...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.⁹¹

The definition is evidently narrower than the general one since it excludes arrangements where the pooled technologies stay within the pool. Such agreements, henceforth referred to as *cross-licensing pools*, resemble pure cross-licensing agreements and are not unusual in industries with shattered IPR ownership or where many IPRs of dubious quality exist. The main object of these pooling agreements is cost and risk reduction rather than joint sales.⁹² The provisions concerning patent pools are not applicable to this type of agreements. Instead the questionable solution has been made where if the agreement is bilateral the TTBER applies (since this is a condition) and if multilateral they are treated according the same principles as the TTBER by analogy, thus likely to qualify for an individual exemption under Article 101(3).⁹³ An effect of the distinction between patent pools, as oppose to cross-licensing pools, avoid this ill-suited solution.

The reason for distinguishing patent pools from cross-licensing pools is not explicitly stated and the same distinction cannot be found in the US IP Guidelines that bundle cross-licensing and pooling arrangements together.⁹⁴

A problem, with making the distinction, follows from the fact that patent pools rarely just involve the pooling and licensing of patents to third parties. The pools tend to also involve cross-licensing between contributing pool members so that each of them can exploit all the patents included in the pool. Ullrich argues that this means that pooling agreement between members must be legally separated from the cross-licensing agreement between them although both aspects of the agreements are most likely entered into at the same time.⁹⁵ The pooling agreement relates to the technology market and the cross-licensing agreement relates to the product market and although both are economically highly interdependent, they are legally separated. Moreover, as the cross-licensing agreement is covered by the TTBER, or analogy of the same, this means that the members must be classified as competitors or non-competitors. The presumption is that holders of complementary patents are not competitors on the technology market.⁹⁶ This can be criticized because in a situation where parties holds

⁹⁰ The Guidelines use the more general word "technology pools" which also cover other IPRs, but for pedagogical reasons this essay will continuously use the phrase *patent pool*.

⁹¹ TT Guidelines, para 210 and Proposed TT Guidelines, para 228.

⁹² Korah, p. 114.

⁹³ TT Guidelines, para 40. Proposed TT Guidelines, para 41.

⁹⁴ IP Guidelines, p. 28.

⁹⁵ Ullrich, p. 307.

⁹⁶ TTBER, Article 1(j).

mutually blocking patents common sense commands they are in fact competitors and irrespective of that parties would in any case be competitors on the product market. In addition, Ullrich argues that the dividing of the two aspects of the agreement destroys the reciprocity link typical for a pooling arrangement, meaning that the stipulations available internally will be limited.⁹⁷ Ullrich concludes his thoughts by asking whether, in situations where a cross-licensing agreement is not block-exempted but subject to the indispensability test in Article 101(3), the benefits of the pool could not justify some more restrictive cross-licensing agreements when considering the overall arrangement.⁹⁸

4.3 The nature of pooled patents

Continuing to most debated question by far, when speaking about patent pools, the Guidelines indicate that a pool's competitive risks as well as efficiency enhancing potential depends, to a large extent, on the relationship between the pooled technologies and their relationship to technologies outside the pool. The following subchapter will explain these different types of nature as well as the difficulties related to distinguishing them.

4.3.1 Substitutes

According to the Commission pooling *substitute* technologies restrict inter-technology competition, i.e. competition between the technologies in question, and is therefore likely to entail a higher royalty for the licensees. Further, reduced transactions cost cannot be expected since licensees, in the absence of the pool, would not have demanded both, alternative, technologies. The arrangement is seen as collective bundling and, if the pool substantially is composed of substitute technologies, price fixing between competitors. For these reasons, inclusion of substitute technologies constitutes a violation of Article 101 and is unlikely to reach the safe harbor of Article 101(3) if the pool comprises to a significant extent of substitutes. To this end it does not matter that the firms have the possibility of independent licensing since the existence of the pool, which allows them to exercise market power, would face the risk of being undermined if they carried out such licensing.

The provision is a clear statement that companies should never engage in pooling of substitute patents. It also sends a message to competition authorities to consider the safe harbor almost unreachable in the assessment of such a situation. The US seem to be of the same opinion about the anti-competitive effects of pooling substitutes. The DOJ stated in their Business Review Letter for the proposed MPEG-LA pool that aggregation of

⁹⁷ Ullrich, p. 307.

⁹⁸ Ullrich, p. 307.

competitive technologies and setting a single price for them is not allowed.⁹⁹ The participants of the *PPP pool* learned this the hard way. Their collaboration pooled existing and certain future patents for laser eye surgery, fixed prices and eliminated the competition between them, the only two companies with FDA approval to market the technology. The FTC issued a complaint in 1998 and ordered the dissolution of the pool due to its anti-competitive effects.¹⁰⁰

The rationale for the view on substitute patents is explained in the actual provision. Substitute patents are believed to entail a higher royalty as well as having no positive effects on transaction costs. Turning to commentators they also offer support to this anti-substitute approach. Regibeau and Rockett conclude that pools containing mostly substitutes would be socially undesirable.¹⁰¹ Lerner and Tirole state that:

...in the case of perfect substitutes/.../a pool is but a merger into a monopolistic arrangement and allows patent holders to suppress competition. Thus, pools of perfect substitutes should be banned.¹⁰²

However The American Chamber of Commerce¹⁰³ has recently, in its consultation response to the current regime, reacted particularly against the strong presumption that inclusion of substitute technologies should infringe on Article 101. As far as their arguments go, such inclusion may be neutral or even pro-competitive depending on the facts and specific circumstances at hand. One of the arguments mentioned is that since the distinction between substitutes and complements is not clear-cut a strong presumption increases legal uncertainty and makes it more difficult to reach agreement on the composition of the pool, potentially leading to the exclusion of complementary patent. Further, when firms are contributing with multiple patents to a pool, allowing the inclusion of substitutes may make it easier for the parties to reach agreement of the overall composition of the pool, and as long as market power is insignificant or the technology relates to a relatively minor element of the final product should not give raise to competition concerns. Additionally, where substitute patents must be used in conjunction with other technologies, the inclusion of substitute patents in the pool can facilitate choice at the manufacturing level. The American Chamber of Commerce describes as an example a situation where consumer demand has not yet settled on a specific standard or technical solution, the inclusion of substitute technologies in the pool may allow manufacturers to introduce alternative versions of the same product/or produce products that work on multiple standards.

⁹⁹ MPEG-LA Business Review Letter.

¹⁰⁰ FTC Decision and Order No. 9286.

¹⁰¹ Regibeau and Rockett, p. 23.

¹⁰² Lerner and Tirole (2008), p. 162.

¹⁰³ AmCham consultation response.

4.3.2 Complements

When *complementary* technologies are pooled, it is the Commission's belief that the arrangement reduces transaction costs for the licensee and leads to lower overall royalties because the license fee is set collectively and with regard to the whole package as oppose to independently. The question of essential or non-essential technologies¹⁰⁴ is further relevant according to the Guidelines. When *essential* complementary technologies are pooled, the formation of the pool generally falls outside of Article 101 irrespective of the market position of the parties due to the benefits accounted for above (still, the conditions on which the license is granted on may be caught). When *non-essential* complementary technologies are pooled there is a risk of foreclosure of third party technologies since licensees have little incentive to look for technology outside the pool when an alternative technology is already included in the package offered. Further, there is the risk of licensees being forced to pay for technology that they may not need and in this respect the situation is seen as collective bundling. Conclusively, when a pool includes non-essential technologies, it is likely to be caught by Article 101 when having a signification position on any relevant market.

Obviously the Guidelines strongly encourage all pooling of essential complementary patents. Also, pooling of non-essential complementary patents seems allowed as long as the pool does not enjoy a significant position on the market, as there is a risk of foreclosure of third parties and collective bundling. Worth noticing however is that pools of non-essential patents that might be hit by Article 101 always have the possibility of the safe harbor in Article 101(3). The condition for this is that there are pro-competitive aspects balancing the anti-competitive nature of the patent. However, nowhere is it specified whether and in which respect these effects must be different from the general advantages of pooling i.e. simple saving transaction costs.¹⁰⁵

The US seems to be of the same opinion about the pooling of complementary technologies¹⁰⁶ and although not using the same terminology, US competition authorities apply an external test to ensure that no patents in the pool have substitutes outside the pool. Before the US IP Guidelines were put into force in 1995, there were almost no provisions dealing with essentiality as a demand for inclusion.¹⁰⁷ Now the essentiality demand is often determined by reference to the technical requirements set by a standard.¹⁰⁸

Scholars support the potential welfare increase connected to the pooling of complementary patents. The foundation for the assumption that this would lead to overall lower royalties is found in the economy theory on double

¹⁰⁴ See section 2.3.2 above for a definition of essential and non-essential patents.

¹⁰⁵ Ullrich, p. 4.

¹⁰⁶ IP Guidelines, p. 28.

¹⁰⁷ Lerner and Tirole (2008), p.160.

¹⁰⁸ Ullrich, p. 8.

marginalization and the “classic complements problem” developed by Cournot in 1838.¹⁰⁹ Cournot concluded that the end price of a certain product, brass, would be lower if one single firm controlled trade of the two key components, copper and zinc, than if these were owned by two different producers with monopoly in their respective area. Also the combined profit for the producers would be lower in the latter scenario. Lerner and Tirole offer a metaphor where a technology user is a shipping company trying to move goods by a ferry on a long a river controlled by different tax collectors in successive locations.¹¹⁰ The multiple taxation, or royalty stacking, could thus be avoided by pooling the complements. For the reason mentioned above, the conclusion seems to be that more leniency should apply to pools that including technologies that mainly consist complements.¹¹¹

It is hard to find any sympathies for pools of complements being anything other than well-fare enhancing. There is however some opinions about the sub-categorization into essential and non-essential patents. One concern is that the concept of essentiality is not defined in the Guidelines and some argue there are a number of alternative definitions. For instance, a patent can be deemed *legally essential* for a standard if the standard cannot be implemented without infringing that patent.¹¹² An example of this is the DVD-6 pool where essentiality was considered to be at hand where a technology “necessarily infringed” upon another, or when there were “no realistic alternative” to the technology when implementing the DVD standard specifications.¹¹³ Another possibility is *commercial essentiality* meaning that a standard cannot be implemented in a manner satisfactory to consumers without the patent, even though the standard might function properly without it.¹¹⁴ An example of this was the provision defining an essential patent as one necessary (as a practical matter) for compliance with the DVD Standard Specifications.¹¹⁵ The fact that essentiality is not an absolute criterion but rather a sort of open-ended sliding scale leads to other effects. In contrast to the US, the EU determine essentiality by reference to any technology, product or process around which parties may wish to establish a pool.¹¹⁶ This means that the more the pooled technology is or might become subject to competition by alternative technologies, the more the essentiality criterion will tend to lose its selective effect. Using essentiality as a criterion for distinguishing between pro- and anti-competitive pools has according to Ullrich simply been conceived as a dividing line between technologies within a pool and not as a means for distinguishing between the pools.¹¹⁷

¹⁰⁹ See Cournot, A.A., *Researches Into the Mathematical Principles of the Theory of Wealth: 1838*, Macmillan, New York, 1897.

¹¹⁰ Lerner and Tirole (2008), p.162.

¹¹¹ Regibeau and Rockett, p. 2.

¹¹² Layne-Farrar and Lerner, p. 295.

¹¹³ DVD-6 Business Review Letter

¹¹⁴ Layne-Farrar and Lerner, p. 295.

¹¹⁵ DVD-3 Business Review Letter and DVD-3 pool Decision.

¹¹⁶ Ullrich, p. 8.

¹¹⁷ Ullrich, p. 8.

There seems to be a discrepancy in the current Guidelines and the literature on whether to restrict patent pools to include only essential patents or not. Scholars does not support the cautious approach delivered by the Guidelines. Regibeau and Rockett conclude that the economic literature is not yet robust enough to consider changing the current approach, but believe that outside the safe harbor, under a rule of reason, the Commission should recognize that there might be needs to include non-essential patents in SSO oriented pools in order to achieve a degree of legal certainty.¹¹⁸

4.3.3 The problematic distinction

The main criticism towards the theories on substitute and complementary patents has not to do with their alleged competitive effects but rather the difficulties in making the distinction between them. The Commission itself confirms that the distinction is not clear-cut and presents some minor remedies for the situation when technologies are substitute in part and complements in part.¹¹⁹ However, there are other concerns. Carlson means that complex factors related to our patent system with overlapping rights over technologies makes the distinction of their relationship particularly devious. Firstly, he stresses that not all granted patents are valid. Patent authorities frequently overlook prior art in their handling of the matter that, were the case going to trial, would have precluded the claim from being issued.¹²⁰ Secondly, Carlson lifts the doctrine of equivalents as a factor making the relationship even more unclear. The doctrine implies that the enforceable scope of a patent extends beyond the claim's literal wording with the purpose of preventing infringements made through trivial modifications of the patented technology.¹²¹ Thirdly, he discusses difficulties relating to the fact that patent authorities grants the patents but courts decide their enforceable scope. As the scope and enforceability, as well as patent law and factual circumstances, is a complex issue, the litigation often overwhelms the courts.¹²² These aspects seen together make the categorization between competing, complementary and blocking patent exceptionally uncertain.¹²³

Merges further discuss the fact that the patent landscape in an industry often cannot be explained in terms of strict complementarity.

To take one example, assume there are two components that are essential for the proper functioning of a given product. Each of two firms holds a key patent on each of the components. Imagine it is possible for end-users to physically integrate the two components, but that it is much better if a manufacturer integrates the components into one marketable product (either it is cheaper to do so, or the resulting product works much better, or both.). In such a scenario, the patents are not

¹¹⁸ Regibeau and Rockett, p. 4.

¹¹⁹ TT Guidelines, para 219.

¹²⁰ Carlson, p. 366.

¹²¹ Carlson, p. 366.

¹²² Carlson, p. 366.

¹²³ Carlson, p. 367.

strictly complementary. Both patentees can realize some economic gain by selling the components directly to end-users. But both can also realize much higher returns if they cross-license the patents and manufacture integrated products for sale to end-users.¹²⁴

Since the distinction is so hard to make, Merges argues that traditional “rule of reason” analysis ought to be applied during antitrust review.¹²⁵ Lerner and Tirole¹²⁶ also discuss the fact that the categorization is easier to deal with in the extreme cases of perfect substitutes or perfect complements, i.e. essential complements, but there are several intermediate cases making it much harder. For example, the level of the price of the patent can play a big part. If the prices for two imperfect patents are low enough, buyers are likely to acquire both of them making them in practice complements. However, if the prices are high, buyers will probably only acquire one of them, effectively making them substitutes. This creates a problem for competition policy, as substitutability and comparability cannot be decided absent consideration of the price.

In addition, the fact that the nature of the patents change over time and that patent pools rarely consist of solely perfect complements or substitutes, but rather a menu of a wide variety of patents, makes the distinction even more difficult.¹²⁷ This is further confirmed by Regibeau and Rockett who mentions that the Case *Syngenta/Monsanto*¹²⁸ testifies of the particular difficulties where multiple products are based on the same stock of intellectual property, in the case a gene bank of sun flower seeds¹²⁹ and in the merger case *Axalto/Gemplus*¹³⁰ where the nature of the relationship between patents was in fact never defined.¹³¹

Despite the fact that the distinction is devious, Regibeau and Rockett believe, that even if it is hard to determine where the exact line lies, there is a dividing line between substitutes and complements and the possible welfare effects are parallel to the degree of complementarity. For this reason, the authors think the EU are doing the right thing, being cautious and only granting a safe harbor for “perfect complements” i.e. essential patents.¹³² In practice this will mean that the safe harbor is restricted to pools supporting a SSO where the essentiality is more easily assessed.¹³³ They find support for their stance in Gilbert’s analysis of some 20 US patent pools decisions and his idea that the distinction between essential/complement and substitute IPRs might be of smaller practical relevance outside the standard-setting contexts where other aspects such as

¹²⁴ Merges (1999), p. 48.

¹²⁵ Merges (1999), p. 49.

¹²⁶ Lerner and Tirole (2004), p. 692.

¹²⁷ Lerner and Tirole (2008), pp. 162 – 163

¹²⁸ *Syngenta/Monsanto* Decision.

¹²⁹ Regibeau and Rockett, p. 24.

¹³⁰ *Axalto/Gemplus* Decision.

¹³¹ Regibeau and Rockett, p. 28.

¹³² Regibeau and Rockett, p. 23.

¹³³ Regibeau and Rockett, p. 1.

price-fixing or market sharing agreements rather will determine the outcome.¹³⁴

4.4 The governance of the pool

Related to the pooling agreement are also, in addition to the more general aspects discussed above, some guidelines addressing the organizational arrangement of the pool. Although the terms for the collaboration is ultimately a matter for the pool members to decide, the Commission offers its view on what they consider to be a desirable institutional framework for the pool.

4.4.1 Open participation

Talking about membership in the pool, the Guidelines express that when participation in the process of creating a pool or standard is open to all interested parties, representing different interests, this has pro-competitive effects. The argument is that the likelihood of the included technologies being selected on the basis of price and/or quality considerations, is bigger than when the pool is set up by a limited group of technology owners.¹³⁵ Similarly, when relevant bodies of the pool are composed of persons representing different interests, this is believed to result in licensing terms and other conditions for the licensing agreement being open and non-discriminatory and reflect the value of the licensed technology than when the pool is controlled by licensor representatives.¹³⁶

Openness is further mentioned when stating that pools with a strong position on the market should be open and non-discriminatory.¹³⁷ Whether openness in this respect refers to admission to membership or access to licenses is unclear. The new proposed Guidelines do however indicate that the latter interpretation is plausible and the provision will therefore be dealt with in the subsequent chapter.¹³⁸

Clearly, the Guidelines advocate pools that are open in all ways possible. Although not strictly prohibiting pools that fail to meet this condition, it is clear that the presumption for open pools is strong. In contrast, the US counterpart contains no presumption for pooling arrangements to be open for all to be assessed as pro-competitive. Although admitting that exclusion from a pool *may* harm competition, such anti-competitive effects are considered likely to emerge when (1) excluded firms cannot effectively compete in the relevant market for the product incorporating the licensed

¹³⁴ Regibeau and Rockett, p. 28.

¹³⁵ TT Guidelines, para 231 and Proposed TT Guidelines, para 233.

¹³⁶ TT Guidelines, para 231 and Proposed TT Guidelines, para 233.

¹³⁷ TT Guidelines, para 224.

¹³⁸ Ullrich, p. 5.

technologies and (2) the pool participants collectively possess market power in the relevant market.¹³⁹

The position that exclusion from membership not necessarily is anti-competitive is supported by Brenner who, based on the work of Lerner and Tirole, claims that exclusion possibly even have pro-competitive benefits.¹⁴⁰ Brenner proposes a pool formation mechanism that allegedly promotes welfare-enhancing pools and prevent their opposites. One of two features of the mechanism is the possibility of excluding applying members in the absence of the pool's approval. The presumption is that when holders of complementary patents have the authority to exclude others it reduces the pool members' incentive to unilaterally deviate from the pooling arrangement, avoiding the outsider's dilemma. Deviation would risk destroying the pool with the result that the pro-competitive gains with it would be lost. However, as the same presumption applies to pools comprising substitute patents, Brenner proposes an additional feature, the possibility for members to offer individual licenses parallel to the pool.¹⁴¹ The latter will be discussed in the following subchapter.

Regibeau and Rockett also acknowledge that pools with selective membership can be pro-competitive. Still, some justification as to why should be necessary before allowing it.¹⁴² The authors believe that EU's strong preference for open pools primarily is based on considerations of efficient technology choice, i.e. that technologies are selected on the basis of price and/or quality consideration, rather than openness in terms of admission to the pool. For this reason Regibeau and Rockett believe that the current EU position is not as far from Brenner's conclusions as one might initially think.¹⁴³

4.4.2 Independent licensing

The Guidelines further lift independent licensing as a pro-competitive factor relevant in the assessment of pools comprising non-essential technologies. In their decision of granting or denying an individual exception under Article 101(3) the Commission are obliged to take into account whether the licensors remain free to license their respective technologies independently.¹⁴⁴ The justification for this provision is not presented, instead the legislator elaborate on the reasons for a company wanting such an individual license.

It should be recalled that this aspect will only be of relevance when dealing with non-essential complementary patents. As mentioned earlier, the

¹³⁹ IP Guidelines § 5.5.

¹⁴⁰ Brenner, p. 374.

¹⁴¹ Brenner, p. 374.

¹⁴² Regibeau and Rockett, p. 4.

¹⁴³ Regibeau and Rockett, p. 30.

¹⁴⁴ TT Guidelines, para 222(b) and Proposed TT Guidelines, para 247(b).

Guidelines explicitly state that the possibility of independent licensing has no effect on the prohibition against the pooling of substitute patents. Also, since the pooling of essential complementary patents is considered to be outside the scope of Article 101, this means that the question of independent licensing is irrelevant for this type of pool.

Even though an explicit presumption cannot be found in the US IP Guidelines, US competition authorities have shown to agree on the position in their business review letters concerning recent patent pools. The MPEG-LA pool is one example where the feature that licensees were not able to obtain fewer than all the pooled patents as one package, was counterbalanced by the fact that all portfolio patents were available individually from their owners or assignees.¹⁴⁵

The rationale for independent licensing is not declared but it should be safe to say that it is closely associated to the presumption for openness. If licensors remain free to license independently, third parties are not foreclosed from the technology and licensees are not obliged to license from the pool. The doctrinal comments are agreeing on that the possibility of independent licensing indicates that the pool has pro-competitive effects. Lerner and Tirole point to their results from a study carried out 2004 in that independent licensing perfectly screen out “good” as well as “bad” pools.¹⁴⁶ Where a pool comprises perfect substitutes, independent licensing recreates cutthroat competition between them with the result that no incentive is left for creating such a pool. On the other hand, where the pool contains perfect complements, independent licensing has no effect. This has to do with the fact that licensees will only be interested in buying all the licenses individually instead of the package offered by the pool if the end price is lower which, due to royalty stacking, is unlikely to happen.¹⁴⁷ For the intermediate cases, where there are imperfections in the substitutability or complementarity, the independent licensing mechanism will relieve the competition authorities from making the complex distinction between substitutes and complements as the mechanism works automatically.¹⁴⁸

A more careful view is offered by Brenner. He shows that the mechanism is not as an efficient antitrust tool as Lerner and Tirole’s analysis might suggest. Brenner however stresses that the mechanism in conjunction with exclusive pool membership, as mentioned above, avoids stability problems of welfare enhancing pools while creates instability of welfare decreasing pools.¹⁴⁹ Ullrich is also skeptical towards putting too much weight on independent licensing as a mitigating factor as this hardly will ever present a realistic alternative to the pool. This would require that the licensee has sufficient technological potential and economic power for the individual negotiations to be effective. However it is this precise reason, the avoidance

¹⁴⁵ MPEG-LA Business Review Letter.

¹⁴⁶ Lerner and Tirole (2008), p. 167.

¹⁴⁷ Lerner and Tirole (2008), p. 163.

¹⁴⁸ Lerner and Tirole (2008), p. 166.

¹⁴⁹ Brenner, p. 374.

of transaction costs, that made the pooling of patents attractive in the first place.¹⁵⁰

4.4.3 Degree of independent experts

Yet another factor is the extent to which independent experts are involved in the creation and operation of the pool.¹⁵¹ Experts can be of value when assessing essentiality or validity where their involvement is believed to ensure that only valid essential technologies are included in the pool. The proposed Guidelines also add that independent experts may further competition between available technological solutions. The Commission shall take into account how experts are selected and the exact functions of their assignment. The experts must have the necessary technical expertise and be independent from the undertakings forming the pool. If not, their objectivity is lost and their existence cannot be considered in the assessment of the pool.¹⁵² A closely related governance feature is the dispute resolution mechanism chosen for the collaboration. As, with the case of independent experts, the more dispute resolution that is entrusted to bodies or persons independent of the pool and members, the more likely it is that the dispute resolution will operate in a neutral way.¹⁵³

US Competition authorities have on numerous occasions offered their support for the same position. Accordingly, in the MPEG-2 Business Review Letter an independent expert was described as an especially effective guarantee for reducing the likelihood of licensors acting concertedly to keep invalid or non-essential patents in the Portfolio or excluding other essential patents from admission to the Portfolio.¹⁵⁴ The MPEG-2 also had a pre-agreed procedure for settling disputes.¹⁵⁵ The two DVD-pools are other examples where standing experts were employed to determine essentiality and perform periodic evaluations of prospective new patents for the pool.¹⁵⁶ In the former of the two DVD-pools, the independent expert mechanism was considered to be somewhat flawed as the expert was appointed directly by the licensors. This was problematic since licensors have an incentive to include any of their own competing patents and to foreclose others. However, the DOJ was satisfied with the licensors' written assurance that the expert's compensation and future retention would not be affected by his determination of essentiality.

Looking to the literature, Layne-Farrar and Lerner declare that the vast majority of modern pools demand patents to be reviewed for essentiality by an independent patent expert. The opposite is true for SSOs that generally

¹⁵⁰ Ullrich, p. 8.

¹⁵¹ TT Guidelines, para 232 and Proposed TT Guidelines, para 240.

¹⁵² TT Guidelines, para 233 and Proposed TT Guidelines, para 241.

¹⁵³ TT Guidelines, para 235 and Proposed TT Guidelines, para 242.

¹⁵⁴ MPEG-LA Business Review Letter.

¹⁵⁵ Merges (1999), p. 29.

¹⁵⁶ Merges (1999), p. 34.

take members on faith. The authors believe the difference is understandable as the inclusion of an extraneous patent in a pool affect the other members' share of total licensing earnings. In contrast, the same situation for a standard does little, if any harm, as firms implementing the standard can simply choose to ignore it. Using an independent expert recognizes the difficulty of determining genuine essentiality and also acknowledges the controversial nature of such reviews.¹⁵⁷ Merges discusses incentives for involving independent experts to the pool. One is to prevent strategic posturing since independent review puts limits to bargaining. Companies will find it difficult to argue that its technology is the key to the standard, and deserving a large part of the revenue, if the independent expert find otherwise.¹⁵⁸ Additionally, independent experts, with their offered second opinion, is also a powerful corrective to a stubborn pool member inflexible about the importance of its contribution to the pool. It is no coincidence, for example, that the independent expert hired by one of the two DVD pools is required to be an expert in DVD technology.¹⁵⁹

4.4.4 Arrangements for exchange of sensitive information

The potential exchange of sensitive information among competing parties is further expressed as a concern in need of neutralization. The Guidelines believe that, especially on oligopolistic markets, exchange of information about pricing and output data may facilitate collusion. For this reason the Commission will take into account to what extent safeguards towards such information exchange have been put in place. One suggested way of doing this is by using independent experts for the calculation and verifying of royalties. Although the operation requires access to such sensitive information it can by the use of independent experts be performed without risking the disclosing of it to the competing undertakings.¹⁶⁰ The proposed Guidelines also recommend special care to be taken when parties simultaneously participate in efforts to form pools of competing standards where there is a risk of exchange of sensitive information between competing pools.¹⁶¹

The question of exchanging of sensitive information, although not a patent pool case, was before the European courts through the case *John Deere*¹⁶². Here the CFI, and later ECJ, concluded that an agreement between some manufacturers of agricultural tractors, in possession of 87-88 % of the UK market, exchanging information about the sales of individual competitors as well as sales and imports of dealers, infringed Article 101 (at the time Article 85). The courts considered the structure of the market, the type of

¹⁵⁷ Layne-Farrar and Lerner, pp. 295 – 296.

¹⁵⁸ Merges (1999), p. 34.

¹⁵⁹ Merges (1999), p. 34.

¹⁶⁰ TT Guidelines, para 234 and Proposed TT Guidelines, para 243.

¹⁶¹ TT Guidelines, para 234 and Proposed TT Guidelines, para 243.

¹⁶² *John Deere Ltd v Commission*.

data supplied, the detailed nature of the information exchanged and the fact that the parties to the agreement regularly met in their assessment. In its decision the courts stated the agreement had the effect of restricting competition by increasing transparency on a highly concentrated market and by raising the barriers to entry of non-members to it. Also, the distribution of sales data of dealers facilitated the identification of the various competitors' sales. The same evaluation is likely to be used should the patent pools exchange of sensitive information be before the court.

As pooling intensify the collaboration between undertakings, the arrangement for a safeguard can be found in many modern pools. In the MPEG-LA pool, the pool was authorized to audit its licensees but explicitly prohibited from transmitting confidential information between the licensors and licensees.¹⁶³ The same provision can be found in the DVD-3 pool where the ability to audit licensees was considered unlikely to entail access to sensitive information, such as cost data, as the audit was being made by independent accountants.¹⁶⁴

4.5 Discussion

From the section above, one should now be able to answer the question of how the legal framework for the pooling agreement looks and what the conditions and presumptions for it to be compatible with EU antitrust legislation are. This subchapter will continue to discuss and question the rationale for the different parts of the policy.

That the Guidelines do not, as one might initially think, create a unitary legal statute for patent pools is clear when studying the policy more closely. The different features of the pooling arrangement have been legally separated and great attention is required to what part of the arrangement is covered by which framework, in order not to lose oneself in the different provisions. If starting out by considering the reason for distinguishing *patent pools* from cross-licensing pools and cross-licensing between pool members, this is not offered by the Commission itself. A possible and quite natural assumption is that the legislator wants arrangements with great similarities to pure cross-licensing agreement to be covered by the same rules, in this case the TTBER. Not doing this means the application of the block exemption would rely on whether the licensors called their arrangement a pool or cross-license. However, in a pooling context, the unique relationship between the pooling agreement and the cross-licensing agreement makes a legal separation of the two particularly devious, possibly resulting in undesirable effects.

First of all, making the TTBER applicable presupposes that we're dealing with bilateral agreements, often not the case in a pooling context.

¹⁶³ MPEG-LA Business Review Letter.

¹⁶⁴ DVD-3 Business Review Letter and DVD-3 pool Decision.

Consequently, the legal certainty for bilateral cross-licensing agreements is strong, whereas the situation for multilateral agreements, neither covered by the TTBER nor the Guidelines, are the opposite. The statement that the multilateral agreements should be assessed by analogy is a pointer to how the individual assessment should be made, but this is still far from enjoying the benefit of the block-exemption.

Furthermore the application of the TTBER also brings about a categorization of the pooling members as competitors or non-competitors. The assessment is based on whether the technologies subject for cross-licensing, are substitute or complements. In a situation where the members hold mutually blocking complementary patents they are in the TTBERs opinion seen as non-competitors. As Ullrich suggests, common sense demands that two players with the possibility of preventing action on the market by the other are in fact competitors on that market. In addition, if considering that both of them are probably active on the downstream product market they are in any case competitors on this level. Thus, the presumption seems unfitting for a pooling context and may lead to a false security in which agreements are to be seen as anti-competitive and which are no not.

The question of how far the legal separation will extend is also of interest. Should the reciprocity link be cut completely it means the two types of agreement must be assessed in total isolation of each other. It seems unreasonable, in a situation where the cross-licensing agreement between pool members is assessed under the indispensability test in Article 101(3) that the pro-competitive aspects of the pooling agreement not also should be taken into account. Especially as the pro-competitive features probably are found in the actual pooling of patents more often than in the cross-licensing between pool members. On the other hand, if recourse could be taken to the pooling agreement when assessing the cross-licensing agreement this means that the legal separation is not complete, an even worse solution from a legal certainty perspective. All of the above seems to testify that the differences between cross-licensing in a pooling context and pure cross-licensing are bigger than the similarities between the two. For this reason it is fair to question whether a legal separation is justified or if not a separate legal statute for the two would be preferable.

Continuing now to the competitive assessment based on the nature of pooled patents. The strong position against the pooling of substitutes and the equally strong promotion of complementary pooling seems to exist on all levels. The aversion towards substitutes is not surprising when considering our long legacy of reaction against collaboration between horizontal competitors. A change of thinking could not be expected in the nearest future, even if pools of substitute patents would show pro-competitive effects. This could possibly constitute a problem, as a change of thinking might be required in order to achieve the desired boost for innovation in the EU. The American Chamber of Commerce advocates a moving away from the presumption against the pooling of substitutes. Perhaps this is not

surprising as the AmCham in general wish to move away from rules and presumptions that are not hardcore restraints as well as adopting safe harbors wherever possible. The argument is that this would help limit uncertainty that stifles incentives to innovate as well as the transfer of technology. However, even if the assumption that pools of substitute patents are “bad” and pools of complementary patents are “good” in terms of competition should be universally agreed, the practical problem remains with the distinction not being clear-cut and extremely complex to perform. Similar problems come with the using of the concept of essentiality as a decisive criterion for whether the pools are pro- or anticompetitive by nature. Just as Ullrich predicts, the fact that essentiality is not an absolute criterion may lead to the criterion losing its selective effect.

The question arises whether a preservation of the presumptions above are worth all the time and effort. It would possibly be easier and perhaps more appropriate to do as the AmCham suggests, to cut all presumptions and focus on creating efficient hardcore restrictions and safeguards. Should this approach conquer ground, one must then question the point of having guidelines at all. Guidelines with no presumptions would have the sole purpose to state that a rule of reason would apply, the assessment would then be left at competition authorities and courts total discretion. This is the reason why Regibeau and Rockett suggest keeping the presumption that the pro-competitiveness of pools increases with the degree of complementarity and that the safe harbor is saved for essential complements only. An alternative, and much bolder, move would be to consider introducing a block exemption regulation for patent pools.

Conclusively, reviewing the proposed governance features, the Guidelines clearly work under the agenda to make the pooling agreement as similar to the situation before the pool was formed as possible. Openness is strongly preferred in the EU but whether the openness refers to admission to membership, to the choice of technology included in the pool or for all potential licensees to be granted a license, is somewhat unclear. The indistinctness of the term could be interpreted as the legislators wish for pools to be open in any way possible. This however is not very likely since the pool in some aspects must be exclusive in order for the incentive to create a pool not to disappear completely. Moreover, the feature of independent licensing seems to be encouraged by most scholars. The rationale for the provision should be the same as the motives for openness. The main criticism towards this provision is that it will hardly ever present a realistic alternative to the pool, and the importance of it can therefore be questioned. Further the degree of independent experts and arrangement for sensitive information wishes to secure that the competitors will not come too close as this would risk sensitive information being disclosed. Although the true extent and effect of these provisions are hard to determine absent case-law or more empirical evaluation, they are easier to accept straight off as they do not, apart from increasing costs, in any appreciable extent restrain the creation or operation of the pool.

5 The licensing agreement

5.1 General about the framework

Licensing agreements between the pool and third parties shall, according to the current framework, be treated like other licensing agreements. In other words, they are covered by the TTBER and block exempted when the conditions set out in the regulation are fulfilled.¹⁶⁵

The fact that the TTBER remains fully applicable on licensing out from the pool have been suggested by Ullrich as a sign on the pool retaining broad powers of control over its licensees. Apart from price fixing and some reservations based on whether the undertakings are competitors or not, various kinds of territorial limitations and restrictions for field-of-use and output are permitted. In addition, the pool is free to put up specifications related to technical and quality aspects, supply or service tying, labeling requirements as well as minimum royalties or quantities.¹⁶⁶ It should however be remembered that the fact that a licensing agreement between the pool and third party may come within the block exemption doesn't necessary mean it will. According to Korah, such licensing agreements tend to exceed the market share ceiling with the result of the TTBER not being applicable.¹⁶⁷

As the TTBER is applicable to some aspects of the licensing agreement the, for a pooling context ill-suited, distinction between bilateral and multilateral agreements yet again becomes a decisive factor. In this scenario, the matter has been solved by presuming that the licensing agreement between the pool and the licensee is of bilateral nature. Ullrich argues that making this presumption means that the most salient feature of the pool is held to be immaterial, namely the circumstance that typically a pool's licensing activities are not limited to parallel licensing from the pool to several third party licensees but also include parallel licensing from several licensors, who may be more or less direct competitors to the pool.¹⁶⁸ The fact that the agreement, in spite of this, is presumed to be bilateral, shows the limits for when a third party licensing agreement can be assessed as an individual and independent transaction and also reveals the wide scope of private market regulation which pools potentially establish.¹⁶⁹ Whether it was the points made by Ullrich or other motives behind the Commissions changing the presumption in the proposed Guidelines is uncertain. Licensing out from the pool is in the proposal generally considered as a multiparty agreement based on the idea that the contributors commonly determine the conditions for such licensing. The result is that licensing agreements are not at all covered

¹⁶⁵ TT Guidelines, para 212.

¹⁶⁶ Ullrich, pp. 5 – 6.

¹⁶⁷ Korah, p. 115.

¹⁶⁸ Ullrich, pp. 5 – 6.

¹⁶⁹ Ullrich, pp. 5 – 6.

by the TTBER but dealt with under section IV 4.2. of the Guidelines.¹⁷⁰ This means that for the licensing agreement, as for the pooling agreement, the competition assessment is a question of it being hit by Article 101(1), and if so whether an individual exemption can come into question. A reference to Article 4 in the TTBER has however been incorporated in the Guidelines stating that the technology transfer agreement may not contain any of the hardcore restrictions listed in Article 4.¹⁷¹

The individual restraints brought up for discussion in the Guidelines are terms commonly found in licensing agreements from pools. The restrictions shall be assessed by the Commission in the light of the overall assessment of the pool and after some main principles. The articulated principles are founded on the assumption that the stronger the market position of the pool, the greater the risk of anti-competitive effects are. For this reason pools with a strong position should be open and non-discriminatory. Also pools should not unduly foreclose third party technologies or limit creation of alternative pools.¹⁷² In the proposed Guidelines some smaller alterations in the wording of the principles has also been made.

5.2 Royalty fees and other licensing terms

According to the Guidelines, undertakings are normally free to negotiate and fix royalties for the technology package and each technology's share of the royalties. Such an agreement is inherent in the creation of the pool and cannot in itself be considered restrictive of competition. On the contrary it may in certain circumstances lead to more efficient outcomes. What is not allowed is however restrictions of licensees' freedom to determine the price of products produced under the license.¹⁷³ Pools with a dominant position on the market face additional restrictions. Although free to negotiate, dominant pools must offer royalties and other licensing terms on a fair and non-discriminatory basis and the licenses granted should be non-exclusive. These demands are seen as necessary in order to ensure that the pool is open and does not lead to foreclosure and other anti-competitive effects on the downstream markets. Still, different royalties for different uses is allowed. For example, different royalties for different product markets are seen as not restrictive of competition whereas different royalties for within the same product market are. The Commission will take into account whether the contributing licensors to the pool are subjected to royalty obligations as there is a particular risk that these actors would be favored.¹⁷⁴ In the new proposed Guidelines the wording has changed and instead of declaring that pools with a strong position on the market must be "open and non-

¹⁷⁰ Proposed TT Guidelines, para 231.

¹⁷¹ Proposed TT Guidelines, para 250.

¹⁷² TT Guidelines, para 224.

¹⁷³ TT Guidelines, para 225.

¹⁷⁴ TT Guidelines, para 226.

discriminatory” a presumption has been added declaring that the stronger the market position of the pool, the more likely an agreement between members not to license to all or to license on discriminatory terms will infringe Article 101.¹⁷⁵

The US IP Guidelines do not explicitly state an obligation for pools to apply fair and non-discriminatory terms. However most modern pools have shown to meet these requirements. As an example, the MPEG-LA undertook to grant a worldwide, non-exclusive sublicense under the Portfolio to make, use and sell MPEG-2 products to each and every potential licensee and not to discriminate among potential licensees.

The desire for pools applying fair and non-discriminatory conditions is really a desire for licensees to be treated equally. Although most would agree that equal treatment is a noble ambition, the effect of incorporating it as a provision in the Guidelines might not produce all the pro-competitive aspects attributed to it. Ullrich believes that equal treatment of pool members and third parties regarding licensing terms really will only be an alternative if the pool has an interest of its own in attracting the licensees on equal and/or favorable conditions. A typical example offered are pools aspiring to establish a technology standard. In these cases, royalties foregone by favorable conditions to licensees, will be compensated in the longer run by increased market opportunities for the pool members. In other cases, the pool members have joined together with a view to obtain an economic advantage on the market and are likely to insist on keeping some of this competitive advantage, at least towards their competitors.¹⁷⁶ For this reason, Ullrich’s conclusion is to use equal treatment requirements as a remedy to control the overall distortion of competition resulting from the pools members’ long-term collective action rather than focusing on specific terms. In his opinion this should be made independently of the existence of market power. He also suggests that the proper issue may not be equal treatment of licensees, but admission of new members to the pool on equal terms.¹⁷⁷

5.3 Grant-back clauses

A grant-back clause obligates members of the pool to offer future patent improvements to the pool at low or no fee. This is a way for the pool to feed on and benefit from improvements to the pooled technology. According to the Guidelines it is legitimate for the parties to ensure that the exploitation of the pooled technology cannot be up-held by licensees that hold or obtain essential patents. However, the grant-back clauses must be limited to developments that are essential or important to the use of the pooled

¹⁷⁵ Proposed TT Guidelines, para 250.

¹⁷⁶ Ullrich, p. 8.

¹⁷⁷ Ullrich, p. 10.

technology.¹⁷⁸ Also, exclusive grant-backs, where the right of exploitation is transferred exclusively to the pool with the result that not even the improver himself can use the patent, must be avoided if wanting to reach the safe harbor of an individual exemption. With the recently proposed TTBER the same now applies to exclusive grant-backs outside the pooling context. Before, a distinction was made between so called severable improvements, within the safe harbor, and non-severable improvements, which were not. By this change, the Commission hopes to secure sufficient incentives for follow-on inventions.¹⁷⁹

Grant-back clauses are common in modern pools. For example, the Business Review Letter for the DVD-3 pool¹⁸⁰ described the grant-back provision as one likely to bring other essential patents into the Portfolio, thereby limiting holdouts' ability to extract supra-competitive toll from Portfolio licensees and further lowering licensees' cost in assembling the essential patent rights. Thus the parties see the grant-back clause as a way to limit future opportunism.¹⁸¹ The MPEG-LA pool¹⁸² contained a comparable provision, stating that essential patents should be made available at a "fair and reasonable royalty". The basis for determining this fair and reasonable royalty was the licensors per patent share of royalties. Alternatively, a licensee in control of an essential patent had the choice of becoming an MPEG-2 licensor and add its patent to the Portfolio. The DOJ approved the clause as its scope was limited to essential patents and did not extend to mere implementations of the standard or even to improvements on the essential patents. According to DOJ this meant that any firm wishing to take advantage of the cost savings afforded by the Portfolio license could hold its own essential patents back from other would-be manufacturers of MPEG-2 products. Since the grant-back was extended only to MPEG-2 Essential Patents, it was further unlikely to entail any disincentive among licensees to innovate as there is not any significant innovation left to be done that the grant-back could discourage. Historically in the US, grant-back obligations was put on the DOJ's watch-list over nine specified licensing practices viewed as anticompetitive restraints of trade in the 1970's, also known as the "nine no-no's". Today, similarly to the EU, their pro-competitive effects are recognized, but still there is some skepticism evolving around grant-backs and their possibility of being expanded to encompass non-essential patents.¹⁸³ According to the DOJ grant-backs are today not rejected as anticompetitive if properly structured.

The motive behind grant-back clauses is the fear of patent holdup i.e. that a new improvement will be developed by one of the pool members or licensees and then used to hold up the pool for high royalties.¹⁸⁴ When the pool supports a standard a calculating licensee of the pool, in possession of

¹⁷⁸ TT Guidelines, para 228.

¹⁷⁹ MEMO/13/120, p. 3.

¹⁸⁰ DVD-3 Business Review Letter.

¹⁸¹ Merges (1999), pp. 34 – 35.

¹⁸² MPEG-LA Business Review Letter.

¹⁸³ Lerner and Tirole (2008), p. 160.

¹⁸⁴ Lerner, Strojwas and Tirole, p. 611.

a patent application covering some essential aspect of the technology pending when the standard was announced, might acquire such a patent and use it to extract concessions from the pool members.¹⁸⁵ Since patent hold-ups are negative from society's point of view, grant-backs work in society's as well as the pools favor. On the other hand, grant-backs can also inhibit innovation if future inventions are rolled into an existing pool without adjusting the package royalty rate or the share of rents.¹⁸⁶ Further, grant-backs for current and future technology at minimal cost may reduce the incentives of its members to engage in R&D because members of the pool have to share their successful result and the pool members can free ride on the accomplishments.¹⁸⁷ The risk of restricted competition on the innovation market is believed to be most imminent when the pool includes a majority of the actors on the relevant innovation market and when essentiality is likely to be interpreted in a rather broad sense.¹⁸⁸ Although a grant-back clause may be a device for restricting competition in the innovation market, their pro-competitive benefits makes a per se prohibition unfitting from a social planners point of view.¹⁸⁹

As mentioned above, grant-back obligations must be limited to important, as distinguished from non-essential, improvements, and the obligations should be non-exclusive.¹⁹⁰ The essentiality assessment as earlier discussed is a pain staking process as the determination, typically made by an outside lawyer, involves detailed claims of each patent and the vagueness of the term essentiality makes the decision complex both from a private and social perspective.¹⁹¹ Looking to the non-exclusivity there are some author's questioning its effect. Ullrich believes that irrespective of the grant-back being exclusive or not, agreeing to grant-backs is advantageous not only for the pool members but also for the licensees agreeing to the grant-back, as the improvements become part of the pool's centralized, cost-saving licensing procedure.¹⁹² Thus, the attractiveness of the pool is increased with the result that an improver would choose to license its improvement to the pool even though no exclusive grant-back was at hand.

5.4 Non-compete clauses

According to the Guidelines, licensors as well as licensees must be free to develop competing products and standards as well as grant and obtain licenses from outside the pool. Similar provisions can be found in the TTBER. For competing undertakings, the hardcore restrictions in Article 4 stipulate that restrictions of the licensee's ability to exploit its own

¹⁸⁵ Merges (1999), pp. 34 – 35.

¹⁸⁶ Lerner, Strojwas and Tirole, p. 611.

¹⁸⁷ Merges (1999), pp. 34 – 35.

¹⁸⁸ Lerner and Tirole (2008), p. 168.

¹⁸⁹ Lerner and Tirole (2008), p. 168.

¹⁹⁰ Ullrich, p. 5.

¹⁹¹ Lerner and Tirole (2008), p. 167.

¹⁹² Ullrich, p. 8.

technology or the ability of any of the parties to the agreement to carry out R & D remove the benefit of the block exemption. The latter of the two can however be accepted if the restriction is indispensable to prevent the disclosure of the licensed know-how to third parties. The same applies to non-competing undertakings according to Article 5 with the difference that only the particular obligation is void, not the entire agreement.

The US IP Guidelines also raise concerns for arrangements that deter or discourage participants from engaging in R & D.¹⁹³ Once more serving as an example, the MPEG-LA pool imposes no obligation on licensees to only use pooled patents and explicitly leaves the licensee with freedom to independently develop competitive video products or video services which do not comply with the MPEG-2 standard.¹⁹⁴

The rationale for the provision, explicitly stated in the Guidelines, is the assumption that non-compete clauses risk the foreclosure of third party technologies and that the pool limits innovation and also preclude the creation of competing technological solutions. The risk of non-compete obligations preventing development of new and improved technologies and standards is particularly big when a pool supports an (de facto) industry standard.¹⁹⁵ Non-compete obligations have in other contexts been considered to have pro-competitive benefits. For example, the ECJ has declared that a non-compete obligation in an agreement regarding the sale of an undertaking can lead to an increase in the number of undertakings on the market.¹⁹⁶ Absent a non-compete clause, the vendor could easily win his customers back immediately after the transfer of the undertaking due to his particular detailed knowledge of it with the risk of the acquiring undertaking would be driven out of business. In the pooling context however the pro-competitive aspects are harder to see why limiting the possibility of including them is a statement that the pool's effect on the market should not be reinforced by the imposition of non-compete clauses on either parties or third parties.¹⁹⁷

5.5 Termination and non-challenge clauses

The Commission also mentions a commonly uttered problem with patent pool, the risk that they shield invalid patents. The cost and risks associated with challenging a patent are always high but patent pools increase them even further. The reason for this is that a challenge will fail as long as one patent in the pool is valid, making the risk of the pool shielding invalid patents imminent. Also, the essentiality requirement for the building of the

¹⁹³ USPTO White paper, p. 6.

¹⁹⁴ MPEG-LA Business Review Letter.

¹⁹⁵ TT Guidelines, para 227.

¹⁹⁶ Remia BV Verenigde Bedrijven Nutricia NV v Commission.

¹⁹⁷ Ullrich, p. 5.

pool means that a challenging licensee is faced with the risk of being unable to work the pool technology altogether if the challenge falls.¹⁹⁸ Seen together, these aspects add up to disincentive for challenging any patent in the pool. This may in turn lead to the pool being able to set higher royalties to the detriment of licensees as well as prevent innovation in the field covered by the invalid patent.

In order to mitigate the risk mentioned above, *termination clauses*, a right for a licensor to terminate a license in the case of the other party challenging the licensed technology, must be limited to the technologies owned by the licensor who is the addressee of the challenge and are not allowed to extend to the technologies owned by the other licensors in the pool.¹⁹⁹ The reason for this has to do with the fact that a licensee may have made substantial investments in the use of the pool's technology. A similar clause can be found in the recently proposed TTBER.

However, how a clause preventing the licensee from challenging the validity of the patent, a *non-challenge clause*, will be assessed is not mentioned in the current Guidelines. In the proposed Guidelines this has been changed and they now declare that a non-challenge clause, inclusive terms for termination, in agreement between the pool and third party is within the scope of Article 101(1).²⁰⁰ Looking to the TTBER, such clauses are not block exempted but does not preclude the rest of the agreement to benefit from the safe harbor.

5.6 Discussion

The reader should by now have gained an understanding of the competition policy on the licensing agreement. Regarding the rationale and justification for the policy, the following can be said.

With the current framework, a licensing agreement between the pool and third party is treated the same as other licensing agreements, hence covered by the TTBER. This means that even if patent pools are collaborations between potential competitors, licensing agreements coming out from the pool still enjoy the benefit of the block exemption. Just like the cross-licensing agreements between pool members discussed in the former chapter, the reason for applying the TTBER can be expected to be the legislator's wish to use the existing block exemption as the licensing agreement in a pooling context in most aspects reflects an "ordinary" licensing agreement from a single licensor to licensee. The problem with doing this, is that the ill-suited distinction between bilateral and multilateral arrangements yet again becomes a decisive factor. In this case, the solution has been to simply establish a presumption saying that the licensing

¹⁹⁸ Ullrich, p. 5.

¹⁹⁹ TT Guidelines, para 229.

²⁰⁰ Proposed TT Guidelines, para 255.

agreement is of bilateral nature. The motivation for this is nowhere to be found and as the commentators have suggested this must really be the limit for what can be considered as an individual agreement. For these reasons, it seems as if the presumption is forced for technical rather than logical reasons. The fact that the recently proposed Guidelines turns the presumption, and proclaim that these licensing agreements instead should be dealt with exclusively by the Guidelines, is therefore a welcomed solution. The effect of this proposed change is not biggest in the material provisions, as the new Guidelines are complemented with a reference to the hardcore restrictions in the TTBER. However, in terms of the procedural aspects, the adjustment means that the burden of proof is now shifted from the Commission to the pool to show that the licensing agreement is entitled to an individual exemption under Article 101(3). Although it might seem as a setback for the companies, losing the benefit of the block exemption and gaining the burden of proof, the fact that the legal solution is more appropriate as well as all provisions dealing with the licensing agreement can be found in one place, will hopefully compensate in terms of increased legal certainty.

Continuing to the actual restrictions discussed in the Guidelines there seems to be a demand for pools with a dominant position on the market to apply *royalty fees and other terms that are fair and reasonable*. The term FRAND (fair, reasonable and non-discriminatory) is often used. The provision is obviously founded on the overall principle that pools with stronger market position are more likely to increase the risk of anti-competitive effects. It is hard to see any negative consequences with demanding a pool to apply such terms. However the effect of the provision might be that only pools with an interest other than that of gaining an economic advantage, for example the creation of a standard, will emerge. The reason for this, is that only in situations where there's a future possibility of making up for the possible losses made, incentives for such other pools would exist.

Moving on to *grant-back clauses*, the provision dealing with this feature is the most extensive one in the Guidelines, as is the literature dealing with it. The reason for debate, is that grant-back clauses have both pro-competitive and anti-competitive effects. In the attempt of balancing these two opposites, the Guidelines state that the obligation of grant-back must be limited to encompass non-essential patents and that the obligation never can require the licensing back to the pool to be exclusive. As regards the essentiality-requirement, we again face the difficulties associated with it. The problem is that one can never be sure whether a patent determined essential actually is essential and whether it will be the same tomorrow. Moreover, the effect of the demand for non-exclusivity questioned by Ullrich seems fair. Most of the times the licensee will probably have a strong incentive to join the pool with his new non-essential patent instead of licensing it back to the pool, making the question of exclusive or non-exclusive license immaterial. Keeping the prohibition against exclusive grant-backs could possibly act as an extra safeguard and would also

correspond with the view on grant-back clauses in general why no harm can be seen in keeping it.

Further on, there seems to be an understanding that *non-compete clauses* in the pooling context do not lead to any pro-competitive benefits. Instead non-compete clauses are seen as a direct foreclosure of third parties as well as having the effect of stifling innovation. Should the new proposal for Guidelines be accepted, this means that the hardcore restrictions in the TTBER must be taken into account in the assessment of these clauses. The TTBER contains a similar provision about non-compete clauses and distinguish clauses between competing undertakings, for which the benefit of the block-exemption for the entire agreement is withdrawn, and non-competing undertakings, where only the exemption for the particular restriction is removed. A question worth considering is what the consequences of including a non-compete clause in the pooling context will be. Should the distinction between competing and non-competing undertakings also be considered in the individual assessment of the licensing agreement?

Conclusively, *non-challenge* and *termination clauses* wish to counteract the risks stemming from the pool's inherent feature to shield invalid patents. The current provision does not mention non-challenges clauses at all. Instead, the focus is on how far a termination clause can be taken. This must be considered quite odd as, in my opinion, the termination clause in no way enforce the incentives for licensees to challenge possible invalid patents. On the contrary, a termination clauses makes it even more likely to abstain from litigation. The fact that the proposed Guidelines adds a clearing statement that non-challenge clauses are within the scope of Article 101, is therefore positive.

6 Conclusion

Creativity and innovation has grown to become one of the most crucial values of the European Union today. The reoccurring emphasis put on innovation in official speeches and initiatives, suggest that something more than just the traditional encouragement and safeguards is needed. The announcing of 2009 as the year of creativity and innovation further support this view. For the EU to rise from the financial crisis and secure its place as a leading world actor, able to meet the competition from the rest of the world, action must be taken to encourage and protect innovation. However, solely focusing on making the incentives for inventors stronger, will not be enough. These efforts are of marginal value as long as opposing forces are given the power to cut off the legs of all attempts to invent. It was against this background this thesis was commenced.

The purpose of this thesis was to examine one of the possible solutions for furthering innovation, patent pools, and the main opponent for it, competition law. I started out by asking the question what competition policy on patent pools contained. Put differently, what conditions must be met for patent pools to be compatible with EU antitrust legislation? The answer to this initial question can be found in chapters four and five, or by examining the policy itself, and will not be reiterated here.

What becomes clear when examining the current as well as proposed policy, is that the latter in most aspects corresponds with its predecessor. This finding is a bit surprising as the Guidelines' section on patent pools allegedly is one where changes has been made. The fact that the new proposal doesn't offer any larger changes can be perceived as the Commission being convinced that the current policy is satisfying. The inevitable question is whether they are right in this assumption. Is the framework fit to meet the challenges of today? In order to determine this, two questions were asked in the introduction to this thesis: are the established safeguards efficient in neutralizing the anti-competitive risks associated with patent pools? And further, does EU competition law policy sufficiently promote the formation of patent pools?

On the subject of the existing safeguards' efficiency, the following can be said. The legal situation for the *pooling agreement* is, if not messy, at least shattered and difficult to survey. A situation where a single agreement is entered into between the parties but some aspects of it are covered by the Guidelines, some by the TTBER per definition, others by the TTBER by analogy and some left to the TFEU, does not rhyme well with legal certainty. This cannot be conceived as an efficient safeguard shaped after the unique features and circumstances surrounding patent pools. For the rules to be efficient, a separate legal statute dealing with both the pooling agreement as well as the cross-licensing between members should be justified. Doing this would facilitate the creation of efficient provisions,

adapted for the specific nature of the pool. Another aspect of the policy is the actual content, more particularly the presumptions, found in the guidelines. As earlier discussed, the presumptions can be questioned in terms of their alleged effect on competition, both in that the behavior deemed anti-competitive not being as serious as suggested and that the safeguards constraining certain anti-competitive behavior not having the alleged effect. Both are a direct attack on the efficiency of the provisions. However, without case-law or more extensive empirical back up the criticism, it will be hard to motivate a change of the current provisions.

As regards the efficiency of the framework for the *licensing agreement*, the same criticism as the one above, in terms of which provisions should apply to which agreements, could be argued. The recently proposed Guidelines however changes the scenery. By removing the benefit of the block exemption in full, the licensing agreements can more naturally be dealt with under the Guidelines. Although this might confer a heavier burden on the companies, this new system must be considered to be preferable from a legal certainty perspective. The policy on licensing agreements can furthermore be criticized in that the safeguards do not have the proposed effect on competition, and for this reason are unnecessary. In this regard, openness and non-discrimination are the requests hardest to motivate as their realization also mean the incentives for creating a pool to a large degree is lost. For grant-back clauses, it is natural that they, due to their possible anti-competitive effects of which all seems to agree, are limited. One can argue on whether essentiality is the most suitable criterion, but the fact that there is some kind of criterion guarantees that not all possible improvements are subject to grant-back obligations. For this reason, the criterion might be good enough. Finally, if the fear of patent pools shielding invalid patents should be taken seriously, then the proposed sentence on non-challenge clauses must be considered as far more efficient than the current restriction on termination clauses. In spite of this, the disincentive for challenging patents might be too big to be overcome by this sole rule.

Continuing to the question on whether EU competition law policy sufficiently promotes the formation of patent pools, the question itself implies that patent pools have enough beneficial features to be promoted. This has been presupposed throughout the essay and must be considered as confirmed by the EU and US policies, international organizations and all of the examined doctrinal comments. In the author's opinion, an important factor in determining whether a policy promotes a value, is the amount of restrictions of the phenomenon. If too many restrictions are established, then a principal statement that patent pools should be promoted has no actual effect. Also the transparency of the rules should be taken into account. The more legal uncertainty evolving the principles, the more risky of a project, and larger disincentives towards patent pooling can be expected. For the case of patent pools, it is not the amount of restrictions, but rather the difficulties in knowing which restrictions are applicable and the consequences of this that might threaten the creation of pools. The legal

uncertainty deters innovators from collaborating, as it is not worth the risk of the Commission suddenly coming knocking on the door.

The answers to my questions seems to be that both the safeguard's efficiency as well as the policy sufficiently promoting patent pools can be questioned. Against this background it would be interesting to ultimately elaborate a bit on how the policy could be altered to better fit the challenges of today. In order to overcome the uncertainties described above, the EU should consider collecting provisions dealing with all aspects of patent pools in one place. An unitary legal statute would be justified by the specific nature of the pooling arrangement and solve many issues regarding legal uncertainty. The form for which this unitary legal statute should be carried out, is a further question. From the author's point of view there are two options. One possibility is for the EU to conclude that the current form is satisfactory and stay with the guideline format. An alternative and bolder move would be to introduce a new block exemption regulation for patent pools. The EU claims their insufficient experience on the area, prevents them from giving patent pools a green light. The lack of experience however, could be a result of the uncertainties surrounding the legal situation for patent pools, discouraging companies from creating them. If the EU really believes in the pro-competitive benefits of patent pools and are serious about setting up ideal conditions for increasing the innovativeness, then they might have to be brave enough to let their competition guard down a bit.

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