



FACULTY OF LAW

Lund University

Micaela Weije

Grant back clauses development from Regulation 772/2004 to
316/2014

Implications for the industry

LAGM01 Graduate Thesis

Graduate Thesis, Master of Laws program

30 higher education credits

Supervisor: Hans-Henrik Lidgard

Semester of graduation: Period 1 Fall semester 2015

Table of Content

1. Introduction	5
1.1 Background	5
1.2 Purpose and question	6
1.3 Method	6
1.4 Material	6
1.5 Limitations	8
1.6 Disposition	8
2. Background	9
2.1 Licensing	9
2.2 The patent system	11
2.3 The correlation between intellectual property and EU competition law.....	12
2.4 EU competition law	13
2.4.1 The framework of art. 101(1)TFEU.....	14
2.4.2 Restriction by object or effect	15
2.4.3 The application of art. 101(3) TFEU	16
3. Grant back clauses	17
3.1 Introduction	17
3.2 Technology Transfer Block Exemption Regulation	17
3.3 EC Technology Transfer Block Exemption Regulation No. 772/2004.....	18
3.4 EC Technology Transfer Block Exemption Regulation No. 316/2014	19
3.5 The definition of improvement	20
3.5.1 Severable and non-severable improvements	21
3.5.2 Improvements in different industries	24
3.6 Duration of the license agreement and its impact on grant back clauses	24
3.7 Market share.....	25
4. An American perspective	27
4.1 Background	27
4.2 The Guidelines for Antitrust Enforcement and Intellectual Property Rights ...	28
4.3 Case-law	29
4.4 Responses to the Commission's consultation	30

5. Economic analysis of grant back clauses	32
5.1 Introduction	32
5.1.2 The but-for argument	33
5.1.3 Economic efficiency	34
5.1.4 Misappropriation	35
5.2 An economic study on the use of grant backs	36
5.2.1 Ex post analysis	36
5.2.2 Ex ante analysis	41
5.3 Remuneration mechanisms	41
5.3.1 The structure of royalty payments	42
5.4 Innovative efficiency	43
5.4.1 Multiple contributors to innovation.....	45
6. Discussion and conclusion	46

Summary

A grant back obligation refers to the obligation for a licensee to assign or license future developed improvements to a licensor. Grant back clauses affect on competition has been a controversial subject in economic and legal doctrine. The study answers if the changed approach in the European Union towards the separation of severable and non-severable improvements in relation to grant back clauses affects industrial co-operation. By adopting Regulation 316/2014, the Commission excluded exclusive grant back clauses concerning non-severable improvements from the TTBER. All exclusive grant backs are currently under the application of art. 101 TFEU and individually assessed. The thesis illustrates that non-exclusive grant backs, royalties and territorial restrictions might compensate for the possibility of inserting exclusive grant backs. However, it is not possible to determine if the licensor's measurements against the licensee will be sufficient to maintain the industries' incentive to license innovations, or if in fact competition will suffer since undertakings will refrain from entering into license agreements. The change within the European Union can be compared to the U.S. rule of reason approach suggesting that it would lead to international conformity. The thesis conclude that the change appears to lead to a higher degree of functionality for the term improvement since each license agreement will be individually assessed.

Sammanfattning

En grant back klausul avser skyldigheten för en licenstagare att överlåta eller licensiera framtida utvecklade förbättringar till en licensgivare. Grant back klausulers inverkan på konkurrens har varit ett kontroversiellt ämne som diskuterats flitigt inom den ekonomiska och juridiska doktrinen.

Uppsatsen ämnar att svara på huruvida det förändrade förhållningssättet i Förordning 316/2014 kommer att påverka industriellt samarbete. Genom att anta tekniköverföringsförordningen undantog Kommissionen exklusiva grant back klausuler gällande icke särskiljbara förbättringar. Numera omfattas alla licensavtal som innehåller exklusiva grant back klausuler av den individuella bedömningen i art. 101 FEUF. Studien illustrerar att icke-exklusiva grant back klausuler, royalties och territoriella begränsningar skulle kunna kompensera för möjligheten att införa exklusiva grant back klausuler. Huruvida dessa åtgärder kommer att vara tillräckliga för att upprätthålla industrins incitament att licensiera uppfinningar går inte att fastställa. Förändringen tycks leda till en högre grad av internationell konformitet då den kan jämföras med den amerikanska rule of reason-doktrinen. Därutöver möjliggör den individuella bedömningen en funktionell tolkning av termen förbättring vilket bidrar till ökad flexibilitet

1. Introduction

1.1 Background

By providing a system which protects inventions potential developers will have incentive to invest in necessary research and development. The patent system is generally seen and justified based on the fact that it promotes innovation.¹ The benefits from a patent system correlates to providing a single actor a temporary monopoly. This monopoly can be transferred temporarily to another undertaking by a license agreement. A license agreement is established when the owner of a patent permits use of the invention to another party. The scope and duration of the use will be determined by the license agreement. The creation of a license agreement results in that the owner refrains from the right to prohibit use of its property.²

Certain provisions in license agreements can result in negative effects on the market. A discussed provision is the so called grant back clause.³ A grant back obligation⁴ refers to the future exchange of developed or obtained technology amongst the parties. It implies that the licensee has to assign or license future developed technology to the licensor. The licensor can have the same obligation towards the licensee, a grant forward clause. The conditions for which they are imposed on either party must be negotiated in the agreement. Grant backs have been discussed in doctrine and literature as clauses which restrict competition by decreasing the incentive to innovate, but also as clauses which promote competition by contributing to innovation and dissemination of technology.⁵

In 2014 the Commission adopted the block exemption on technology transfer agreements, Regulation 316/2014 which replaced Regulation 772/2004.⁶ When the new Regulation arrived there had been a change in art. 5 compared to the former Regulation. The relevant and important change relates to the removal of the distinction between severable and non-severable improvements.⁷ Art. 5.1(a-b) in Regulation 772/2004 exempted exclusive grant backs concerning the licensee's severable improvements from the application of the block exemption.⁸ However, art. 5(1) in Regulation 316/2014 excludes all improvements, severable and non-severable, implicating that they

¹ Schovsbo, p. 215-216.

² Runesson, p. 26 and 33.

³ Domeij, p. 92-93.

⁴ Also known as feed-back or feed on clause.

⁵ Bastidas Venegas, p. 243-244.

⁶ Reg. 316/2014, art. 10.

⁷ Warren, p. 365.

⁸ Reg. 772/2014, art. 5.1 (a-b).

now will be outside the safe harbour and assessed under art. 101(1) and 101(3) TFEU.⁹ The motive to the change is not clearly expressed in the guidelines or by the Commission through other communication. There have been differing opinions whether or not the change will have a positive or negative impact on the market. How the future will develop is still uncertain.

1.2 Purpose and question

This study explains the development with regard to severable and non-severable improvements for grant back clauses in the EU from Regulation 772/2004 to the new Regulation 316/2014. The research questions for the thesis are;

- *How does grant back clauses affect competition?*
- *Does the changed approach in the European Union towards the separation of severable and non-severable improvements in relation to grant back clauses in Regulation 316/2014 affect industrial co-operation?*

1.3 Method

In order to achieve the aim of the study a traditional legal method will be used to explain the current law and the system in which grant backs exist. Grant back clauses involve several aspects of law such as competition, intellectual property and contract. The paper describes the legal foundation for these areas within the EU. In addition, a comparative method will be employed to gain a broader perspective of the issue. The American view on grant back clauses will be described and economic doctrine relating to the issue will be explained to highlight differences. As the paper evolves, an economic perspective will be added since competition law has its foundation in economics and the area is closely connected to the changed view of grant backs in the EU.

1.4 Material

Regulations, guidelines and investigations will be the foundation to describe the current law within the EU. Regulations do not describe how to apply the law fully, therefore the guidelines have been used to interpret the law. The guidelines have an important role in the economic sphere since the Commission has a certain margin of appreciation within competition law. The Commission's analysis can be acceptable as long as an assessment is not a direct error under case-law of the Court

⁹ Reg. 316/2014, art 5.1.

and the General Court. The Commission's power to create binding decisions is important to keep in mind while reading the paper.¹⁰

To understand and evaluate the law doctrine, articles and case-law have been used. In 2011 Pierre Regibeau and Katarine Rockett came with an investigation prepared for the Commission called Assessment on potential anti competitive conduct in the field of intellectual property rights and assessment of the interplay between competition policy and intellectual property protection. This report contained an economic analysis on grant back clauses which will be described and evaluated. The material is useful but the report is funded by the Commission which might influence their independence. In addition, the economic analysis appears to be based upon hypothetical scenarios which raises issues of credibility.

Due to the arrival of the TTBER the meaning of the judgments has been reduced since the current law replaced the judgments. There are few decisions relating to the chosen field, however some case-law will be used to the extent that they are valid or illustrates an important turning point.

A proposal to the changed TTBER was sent to many active participants in the industry. The criticism that was raised in the answers have a political nature due to their own interest in the matter. All the answers that were available in English have been studied and issues that were raised by many participants have been chosen to illustrate potential impact on the industry.

In 2011, Inger Berg Örstavik came with the dissertation *Innovasjonsspiralen*. She is a well known professional which currently works as an associate professor for the Department of Private Law at the University of Oslo. Another prominent lecturer from Uppsala University is Vladimir Bastidas Venegas who published the dissertation *Promoting Innovation* in 2011. The dissertation analyses the application of art. 101 TFEU to patent technology transfer agreements. These two dissertations have provided useful material on the narrow subject but literature from writers such as Bengt Domeij, Eric M. Runesson and Jens Schovsbo has also been used to a significant extent.

¹⁰ Bastidas Venegas, p. 80.

The paper will treat US legislation through the Guidelines for Antitrust Enforcement and Intellectual Property Rights created by the U.S. Department of Justice and the Federal Trade Commission but also important rulings and opinions relating to grant backs.

1.5 Limitations

There are several changes from Regulation 772/2004 to Regulation 316/2014 with regard to licensing activities but this paper will concentrate on grant back clauses. Grant backs in relation to multiparty set-ups such as patent pools and multiparty cross-licensing will not be discussed, however the terms will be explained shortly. The paper will not investigate grant-forwards.

The group exemption does not apply to art. 102 TFEU, abuse of dominant position, and a review on any of the cases relating to art. 102 TFEU will not be provided. Furthermore, grant back clauses will be evaluated with the purpose to review the change relating to severable and non-severable improvements and to understand the future impact. Even if a grant back clause is considered to be outside the group exemption, it can still be considered legal when it is evaluated under art. 101(3) TFEU. The guidelines of art. 101(1) TFEU will be discussed to a certain extent when considering the impact of the change, however a full evaluation is outside of the purpose and question.

1.6 Disposition

The paper is divided into six chapters. Chapter two contains the basic concepts used in the context of grant backs, such as the description of patents, licensing and EU Competition law. Grant back clauses are introduced in chapter three as well as Regulation 772/2004 and 316/2014. In addition, the interpretation of the term improvement is discussed including the separation between severable and non-severable improvements. Furthermore, the chapter contains a description of the duration of a license agreement and the market share threshold. Chapter four address an American perspective which will shortly explain the background and the current view in the U.S. The chapter provides a brief insight into the development of grant back clauses by describing the guidelines, important rulings and answers to the consultation. There are several economic justifications for the use of grant backs such as misappropriation, the but-for argument and decreased royalties. Chapter five will deal with the economic aspects of the question. In addition, Regibeau and Rockett's economic analysis will be addressed in detail and innovative efficiency which explains the economic theories relating to multiple contributors. The final discussion and conclusion can be found in chapter six.

2. Background

2.1 Licensing

A license agreement is established when an owner of a patent concludes an agreement with another party which enables use of the patent without risking infringement on the original patent. The owner of the patent becomes the licensor and the user the licensee. The right to utilise the patent is temporary and the ownership remains with the licensor. The licensee has no right to exercise any use of the patent after the license agreement expires. The simplest forms of license agreements contain two parties.¹¹

Normally, a license agreement has to be determined by the parties involved which usually have different technological needs and economic abilities. A license agreement can consist of two companies but also involve complex arrangements between companies located cross-border.¹² It is common that the party, who was considered the licensee in the first arrangement, starts licensing to third parties, so called sub-licensing. The arrangement of sub-licensing must be approved in the initial agreement. The license agreement can cover one intellectual property but can also involve a bundle of rights.

A simple license agreement can be arranged with three different types of exclusivity. If the agreement does not contain any type of restriction of exclusivity it is called a non-exclusive license.¹³ If a licensor is hindered to produce or license the technology rights to third parties it is called an exclusive license. The restriction can apply to a limited geographical area or a particular use. The third type is a sole license which is when a licensor undertakes not to license to third parties within a restricted geographical area. The licensor can still license to several licensees but divide the geographical market amongst them through different types of sales restrictions which are incorporated into the agreement. A sole license¹⁴ generally permits the licensor to enter the defined market.¹⁵ Furthermore, license agreements can be on a horizontal and a vertical level. Every license agreement has its own impact on the market depending on the arrangement between the parties involved.¹⁶

¹¹ Bastidas Venegas, p. 145-146.

¹² Domeij, p. 15-16.

¹³ Bastidas Venegas, p, 146-147.

¹⁴ The definition of a sole license can be determined by the license agreement.

¹⁵ Guidelines 214/C 89/03, para. 189-191.

¹⁶ Bastidas Venegas, p.147.

It is common that the license agreement contains a territorial restriction which implies that the license is valid in the territory which is determined in the license agreement. In addition, the license agreement can contain a restriction against export of products outside the territory.¹⁷ Another alternative for the licensor who wish to restrict the licensee is to insert a field-of-use clause which results in the fact that the licensee can manufacture within a specific area, for instance, the inventor to a fabric can limit manufacturing to the production of shoes, excluding clothes and other options.¹⁸

License agreements can also be set up in patent pools which involves many participating parties who put their patents in a "pool" in which each participant has access to. The patent pool members can decide to license their technology to third parties. A smaller version of this arrangement is cross-licensing and multiparty cross-licensing. If undertakings decide to license technology to each other it is called cross-licensing. When this arrangement is among numerous parties it is called multiparty cross-licensing.¹⁹

The economic motive for a licensor to license its technology can differ. The licensee can have better potential to develop and market the technology and the licensor might not have the structure within the organisation for the proper research and development. In addition, the risk associated with development could be too high for the undertaking to manage.²⁰ The dissemination of technologies which is made available through license agreements often result in value by decreasing production cost for the licensee and opening new possibilities to produce or improve technology. The integration of complementary availability and technology is likely to create cost/output configuration. The improved technology of the licensor in combination with the increased production level or distribution asset of the licensee may decrease production expenses, or result in a product with higher quality. Moreover, licensing contributes to the aim of removing obstacles to utilise and develop the licensee's own technology.²¹

Licensing has not only been seen as causing positive effects. When one or several right-holders have a unique technology they tend to use their position on the market to bargain when negotiating

¹⁷ Runesson, p. 89.

¹⁸ Ibid., p. 94.

¹⁹ Bastidas Venegas, p. 149-153.

²⁰ Gölstam, p. 106.

²¹ Guidelines 204/C 89/03, para 15-17.

licensing agreements. The abuse of such a position can lead to a lost transaction which will result in a reduction of value for many right-holders or third parties. It is called the hold-up problem.²² In addition, the knowledge gained from the license arrangement might facilitate the licensee in becoming a future competitor. Other risks associated with licensing are inefficiencies caused by situations where the agreement is not balanced against the licensee's resources or knowledge, or if the market changes rapidly creating different circumstances for the parties involved.²³

2.2 The patent system

The objective of the EU patent system has been to establish competitive benefits for the EU innovators in relation to other participants in the market.²⁴ The so called "fifth movement" within the EU is the movement of knowledge. One fundamental aspect of the movement of knowledge is the modern uniform intellectual property system, which has been viewed as crucial to reach policy goals of development, growth and competitiveness.²⁵

The central motive and justification to the patent system is to promote innovation. By providing a system that protects an innovation from infringement the inventor has an economic incentive to invest resources into necessary research and development to create new products. Development requires time and effort amounting to high costs for the inventor, at the same time it is easy to copy a product at a low cost. By providing exclusive rights the inventor can recoup the costs by exclusive marketing. Of course, the capability itself does not provide profit for the inventor but the protection of an approved patent establishes a potential exclusive market.

A common presumption is that the inventor has an advantage on the market due to the patent and the monopoly situation. According to Schovsbo, the presumption does not correspond to reality since many undertakings face competition once established on the market or when they try to enter an existing market. The remuneration received for the patent will most likely correlate to society's need for the product.²⁶

²² Bastidas Venegas, p. 138.

²³ Domeij, p. 15-16.

²⁴ Art. 26 TFEU, Compare the Preamble to the proposed Council Regulation on the Community Patent, Working Document of 30 Oct 2009 (15149/09) of the Council of the European Union and Conclusions on an Enhanced Patent System in Europe adopted by the Council of the European Union on 4 December 2009.

²⁵ An Industrial Property Rights Strategy for Europe, Communication from the Commissions to the European Parliament, the Council and the European Economic and Social Committee, Brussels 16 2008, COM (2008) 465 final 3.

²⁶ Schovsbo, p. 216.

A patent system has negative effects as well, one of which is the so called patent thicket. It is created by many different intellectual property rights, patents especially, that overlap each other contributing to a situation where a potential exploiter needs to seek approval from multiple owners before starting a project, thereby increasing costs for projects. The patent system provides for the opportunity for owners to hold out potential inventors since they determine who can access the patent. The amount for circumventing an invention can be too high for the exploiter to consider the project cost-efficient.²⁷

2.3 The correlation between intellectual property and EU competition law

As mentioned, the advantages from a patent system correlates to a temporary monopoly. The monopoly can be transferred²⁸ temporarily to another undertaking by the creation of a license agreement.²⁹ Benefits of creating such a monopoly has to be weighed against the competition concerns that arise due to the blocking of other participants. The Court of Justice of the European Union has determined the relation between the national intellectual property law and the TFEU. It has been held that art. 101(1) TFEU cannot infringe on the existence of an intellectual property right. However, if the intellectual property right is exercised outside the intellectual property specific subject matter there is nothing that prevents the competition rules from being exercised. The type of intellectual property define what actually is the specific subject matter but the essential factor is the function of the intellectual property.³⁰

The idea of balancing monopoly power and intellectual property rights is more present in the EU compared to other countries. The European courts have created the distinction between the existence and exercise of intellectual property rights to allow competition law to support in circumstances where activity exceeds the legitimate use of the monopoly rights arising out of intellectual property.³¹ Art. 101(1) TFEU has a significant role when the holder of an intellectual property license its patent since all agreements may restrict competition and can be prohibited. The bodies of law share the same objective of promoting consumer welfare and an efficient use of resources.³²

²⁷ Schovsby, p. 218-219.

²⁸ Observe that it is only the temporary use of a patent and not the ownership.

²⁹ Runesson, p. 26 and 33.

³⁰ Wetter, Karlsson, Östman, p. 505-506.

³¹ Sansuvan, p. 49-52.

³² Guidelines 2014/C 89/03, para 5-8.

2.4 EU Competition Law

The EU competition rules aim at providing an efficient market and to foster consumer welfare by providing a protection of competition through art. 101 TFEU. Art. 101 TFEU affects all business undertaken within the EU borders which influence the trade between Member States. Any distortion, restriction or prevention of competition is prohibited by art. 101(1) TFEU. An exception is provided for in art. 101(3) TFEU since agreements between undertakings can be considered pro-competitive.³³ The EU competition law has its foundation in three different principles, the first is to maintain an efficient competition on the market. The second is to protect small and medium-sized companies and consumers with the aim of providing fair competition on the market. The third is to create an inner market with the help of competition law. The aims have been established by treaties, judgements from the European Court of Justice and other Regulations within the EU.³⁴

In general, license agreements are not considered to violate the EU competition rules if they do not contain any exclusivity, or any defined geographical area. An inclusion for such an exclusivity does not necessarily result in violation. In *Nungesser v. Commission*, a temporary restriction though an open exclusive license was not against the EU competition rules. An open exclusive license is an agreement in which the licensee has exclusivity within a specific geographical area but third parties are allowed to act by passive sale or parallel import. A license agreement can be concluded by two parties that act on a horizontal or vertical level. Whether it is a horizontal or vertical agreement is of importance when evaluating an agreement since a horizontal agreement generally is considered to have a higher risk associated with open exclusive license agreements.³⁵

The Commission's practise has evolved over the last forty-five years. In the beginning of the 1970's the Commission found various clauses in license agreements violating art. 101(1) TFEU. An area where the Commission was particularly active was the use of territorial restrictions, even if some were accepted due to the exception in art. 101(3) TFEU. The current practise differs from the old view, and according to Wish and Bailey it is a more realistic perspective which results in more valid license agreements.³⁶

³³ Guidelines 2014/C 89/03, para, 5.

³⁴ Anderman and Schmidt, p. 25.

³⁵ Wetter, Karlson, Östman, p. 512-514, Compare; *Nungesser v Commission* (1982) Case 258/78.

³⁶ Wish, Bailey, p. 818.

2.4.1 The framework of art. 101(1) TFEU

The scope of art. 101(1) TFEU is broad, not only does it apply to potential competition between parties but also to actions concluded between any of the parties and third parties which may have a restrictive impact on competition. The context in which competition would occur must be evaluated before the license agreement's affect on competition can be assessed. In terms of licensing there are two sorts of competition, inter-technology competition and intra-technology competition.

Competition between parties utilising competing technologies is called inter-technology competition. The guidelines state that it is important to consider the competition between the parties, but also the competition from third parties. For instance, when there is a cross-license agreement of competing technologies between two undertakings located in different Member States and the agreement obliges each party not to enter each other's home markets, a possible competition that was current before the agreement might now be restricted. Another example might be where the licensor creates obligations on its licensees not to use competing technologies which might result in a foreclosure of third party technologies.

Intra-technology competition refers to the competition between undertakings which use the same technology. One example is when the licensor impose restrictions upon its licensees which prohibit competition amongst them. If the licensees' were not competitors or potential competitors from the beginning the clause will now prohibit future competition. A restriction can consist of a vertical price fixing or a territorial sales restriction. A restraint can avoid being caught by art. 101(1) TFEU when it is objectively necessary for the existence of the agreement, however, the objective factors must be external in relation to the parties and their subjective views. Determination must be based upon the question whether or not parties in a similar environment could have created a less restrictive agreement given that the characteristics of the market and nature of the agreement is the same. The possibility for the parties to create a less restrictive agreement is not of relevance. Restrictions have the capacity to influence both inter-technology competition and intra-technology at the same time, it becomes important to analyse the restriction before evaluating if they violate art. 101(1) TFEU.³⁷

³⁷ Guidelines 2014/C 89/03, para 10-13.

2.4.2 Restriction by object or effect

The agreements that result in a restriction of competition as their object and the agreements that result in a restriction of competition as their effect are separated in art. 101(1) TFEU. If an agreement restricts competition by object, there is a profound risk that negative effects on competition occur. In that case it is not necessary to prove any effects on the market in order to prove a violation of art. 101(1) TFEU. Art. 101(3) TFEU is not likely to be applied in such a scenario. The factors for determining whether an agreement has a restriction of competition as its object is based on a) the objective goal, b) the content of the agreement, c) behaviour of the parties and d) the context in which the agreement is applied. The clause does not have to indicate a violation but the circumstances in which it is applied can still constitute a violation of art. 101(1) TFEU. It is not necessary for the parties to have subjective intent to restrict competition but it can be considered as a factor. Agreements can have legitimate purposes but have a restrictive object if it is the effect of the agreement. Thus, various types of agreements need to be evaluated in each case but certain types of agreements are generally deemed as restrictive by nature. Those are listed in art. 4 in Regulation 316/2014 and are called hardcore restrictions.³⁸ Examples of such are restrictions of a party's ability to determine its prices when selling to third parties or the restriction of a party's ability to exploit its own technology rights.³⁹

When an agreement has restrictive effects on competition, both actual and potential effects are considered. Negative effects on output, innovation, prices or the variety or quality of goods and services are included. The correlation between a restrictive effect and a result must have a reasonable degree of probability. The possible restrictive effects on competition must be appreciable, which are more likely to occur if at least one of the parties has some degree of market power and the agreement contributes to the establishment, maintenance or strengthening of that market share or provide an opportunity to exploit market power.

The definition of market power is when an undertaking has the possibility to maintain production in terms of quality, quantity, variety and innovation under the competitive levels for a significant period of time or when the undertaking can maintain prices above competitive levels. The degree of market power necessary for an infringement under art. 101(1) TFEU is not as high as the degree of market power necessary for violation of art. 102 TFEU. When evaluating the restriction of

³⁸ Guidelines 2014/C 89/03, para 10-14.

³⁹ Reg. 316/2014, art. 4.

competition by effect it is normally necessary to establish the relevant market and analyse it, however it can be illustrated directly by analysing the parties' behavior on the market.⁴⁰

A limitation of competition can be accepted if it is objectively necessary, which means that the restriction is required for the agreement to be concluded and less restrictive terms are not available. The evaluation is based upon objective factors and not the parties' subjective intentions or characteristics.⁴¹

2.4.3 The application of art. 101(3) TFEU

License agreements are first evaluated under the block exemption. If the agreement is not covered by either Regulation 316/2014 or 330/2010 on vertical agreements it might satisfy the requirements of art. 101(3) TFEU. Hardcore restrictions are not likely to fulfill the requirements of art. 101(3) TFEU. Thus, there is no presumption that an agreement is violating competition law due to the failure to fulfill requirements in the block exemption as held in the Commission's decision Telenor/Canal+/Canal Digital where the conditions of art. 101(3) TFEU were satisfied even when the agreement was outside of the vertical block exemption.⁴²

Each condition of art. 101(3) TFEU must be satisfied for the agreement to be valid and enforceable. There are four conditions; a) the agreement must contribute to improvement of production or distribution of goods or contribute to promoting technical or economic progress, b) consumers must receive a fair share of the resulting benefits, c) the restriction must be indispensable to the attainment of the objectives, and finally d) the agreement must not afford the parties the possibility of eliminating competition in respect of a substantial part of the products in question.⁴³

⁴⁰ Guidelines 2014/C 89/03, para. 15-17.

⁴¹ Guidelines 2014/C 89/03, para. 12(b).

⁴² Ibid., p. 823, Compare; Telenor/Canal+/Canal Digital Commission Decision, (2003) COMP/C.2- 38.287.

⁴³ Art. 101(3) TFEU.

3. Grant back clauses

3.1 Introduction

A grant back obligation⁴⁴ refer to the future exchange of developed or obtained technology amongst the parties. By the inclusion of a grant back clause the licensee has to assign or license future developed technology to the licensor. The licensor can have the same obligation towards the licensee, which is called a grant forward clause. The conditions must be negotiated in the license agreement and it is usually limited in scope. The term for which it is negotiated depends on several factors, such as exclusivity, whether or not it is reciprocal, which type of license agreement it is and if the grant back is an assignment of ownership or a license. Grant backs have dual function from a competition law perspective. They are important to protect since they generally enhances competition by promoting research and development for inventors and facilitates the “one stop shop” which ensures that all the relevant technology is available for third parties in one transaction, saving costs and circumventing the issue of royalty stacking if the technology is complementary.⁴⁵ On the other hand, grant backs have been held, by both economic and legal sources, as reducing competition by decreasing the incentive to innovate for licensees.⁴⁶

3.2 Technology Transfer Block Exemption Regulation

If all agreements were to be assessed under art. 101(1) TFEU it would be difficult and time consuming for companies to establish cooperation amongst each other. In most cases, small companies do not influence the market negatively but instead benefit the market by cooperation. To facilitate the companies in this area the Commission has established group exemptions. If a company is in compliance with the requirements in the block exemption they can presume that their agreement is valid and enforceable.⁴⁷ In 2014 the Commission adopted the block exemption on technology transfer agreements, Regulation 316/2014 which replaced Regulation 772/2004. Before the change occurred the Commission assembled a proposal that was sent out to different organisations and governmental organisations. In addition, a report was published in 2011 which aimed at evaluating the interplay between competition law and intellectual property. The Commission held that the positive effects of the 772/2004 Regulation was enough to adopt a new

⁴⁴ Also known as feed-back or feed on clause.

⁴⁵ Bastidas Venegas, p. 243-244, Compare; Regibeau and Rockett, p. 50.

http://ec.europa.eu/competition/consultations/2012_technology_transfer/study_ipr_en.pdf. (Accessed 2015-09-15).

⁴⁶ Bastidas Venegas, p. 243-244.

⁴⁷ Domeij, p. 67-68.

block exemption which became effective 1st of May 2014.⁴⁸ It has a one year transition period which applies to agreements that were exempted under the previous regulation but which no longer meet the conditions of Regulation 316/2014.⁴⁹

3.3 EC Technology Transfer Block Exemption Regulation No. 772/2004

Art. 5.1(a-b) from Regulation 772/2004 stated that the exemption from art. 81(1)⁵⁰ of the Treaty should not apply to any direct or indirect obligation on the licensee to grant an exclusive license or assign ownership to the licensor of severable improvements or the licensee's own new applications of the licensed technology, including third parties designated by the licensor.⁵¹ If an agreement contained this form of grant back clause it was subjected to the application of art. 81(1) of the Treaty and an individual assessment. The motive for art. 5.1(a-b) was to promote innovation by protecting the licensee's motivation to innovate.

Severable improvements were not exempted and according to the former guidelines the definition of a severable improvement is when the improvement can be utilised without infringing on the licensed technology. The severable improvement can have the same use as the licensed technology or involve an establishment of a new function for the licensed technology.⁵² To impose such a restraint on the licensee was generally considered to be restrictive of competition since it would reduce the licensee's possibility to utilise its own improvements within the organisation or to license to third parties. It was permitted to incorporate an exclusive grant back clause if the invention was considered a non-severable improvement, since a licensee cannot utilise a non-severable improvement without infringing on the licensed technology and must therefore receive the licensor's permission for use.⁵³ In addition, grant back clauses requiring the licensee to provide the licensor with severable improvements were permitted under the circumstance that the agreement was non-exclusive, even in cases where the agreement was not reciprocal⁵⁴ and the licensor had the right to grant its other licensees the severable improvement. The guidelines held a non-reciprocal grant back provision as pro-competitive since the other licensees could access the other

⁴⁸ Whish, Bailey, p. 823-824.

⁴⁹ Reg. 316/2014, art. 10.

⁵⁰ Note that art 101(1) TFEU replaced 81(1) of the Treaty.

⁵¹ Reg. 772/2014, art. 5.1 (a-b).

⁵² Guidelines 2004/C 101/02, para. 107-109.

⁵³ Domeij, p. 92-93.

⁵⁴ A reciprocal agreement is mutual and means that both parties grant each other their developments within a specific area.

developments through the licensor, facilitating dissemination of technology. In addition, the licensor could decide which innovation the licensee could have access to.⁵⁵ The guidelines did not explain why the licensor's assembling of technology was considered pro-competitive. Art. 5.1 (a-b) does not depend on the remuneration for inventions but, if there is such, it can be relevant when performing an individual assessment under art. 81(1) of the Treaty. The remuneration provides further incentive for the licensee which reduces the risk of negative effects from the obligation to grant back. Other relevant factors are the market position of the parties and the existence and extent of parallel networks.⁵⁶

3.4 EC Technology Transfer Block Exemption Regulation No. 316/2014

When Regulation 316/2014 arrived there had been a change in art. 5 compared to Regulation 772/2004. The current Regulation incorporates both assignments and licensing of improvements in art. 5.1(a) compared to the old Regulation which divided these in separate points. But the relevant and important change relate to the removal of the distinction between severable and non-severable improvements.⁵⁷ Art. 5.1(a) of Regulation 316/2014 states that the exemption from assessment under art. 101(1) TFEU shall not apply to any direct or indirect obligation on the licensee to grant an exclusive license or to assign rights, in whole or in part, to the licensor or to a third party designated by the licensor in respect of its own improvements to, or its own new applications of, the licensed technology.⁵⁸ The guidelines state that an exclusive license is likely to contribute to a reduction of innovation due to the fact that it hinders the licensee in exploiting the improvements, including the possibility to license to third parties. If the grant back is non-exclusive it is covered by the safe harbour of the TTBER under the same circumstances as in Regulation 772/2004.⁵⁹

A potential motive for the change is mentioned in the preamble to the Regulation. By excluding certain grant backs from the safe harbour the Commission wishes to protect the incentives for research and development. The benefits of intellectual property can only be achieved by a correct application which is easier to accomplish by excluding them from the group exemption.⁶⁰ In comparison, the preamble to Regulation 772/2004 had the same statement with the exception that it

⁵⁵ Guidelines 2004/C 101/02, para. 109.

⁵⁶ Guidelines 2004/C 101/02, para. 110.

⁵⁷ Warren, p. 365.

⁵⁸ Reg. 316/2014, art 5.

⁵⁹ Guidelines 2014/C 89/03, p.129, Compare; Guidelines 2004/C 101/02.

⁶⁰ Reg. 316/2014 preamble, para.15.

was only applicable to grant back obligations for severable improvements.⁶¹ No motive can be found in the guidelines or the Regulation but there are doctrines that support the preamble's motive to protect the licensee's incentive to innovate.⁶²

3.5 The definition of improvement

What actually defines an improvement is not described in the guidelines to Regulation 316/2014. However, it is stated that improvements include circumstances where the developed application is the same as the licensed technology but also in situations where the licensee develops new applications of the licensed technology. A definition of what this means in practice is not provided for in the guidelines.⁶³

The definition of improvement can be different for competition, patent and contract law. An improvement within patent law indicates that an enhancement has occurred on the market. Due to the technological nature in the field it does not necessarily mean that the invention is better in terms of quality, but rather state that a new technological invention has taken place. The definition of improvement is of less importance when contract law is involved since the parties can determine the definition in the agreement by their own choice. According to Örstavik the TTBER has an autonomous definition of improvement in relation to competition law. Competition law corresponds to the license agreement's effect on the market meaning that the term improvement should relate to whether and to what extent it influences the market. For that reason the definition of improvement should be functional and not autonomously defined.⁶⁴ Furthermore, the term improvement should not be statically defined since technology is in constant change. Once the licensee has the opportunity to actively produce the product there is a possibility that the product actually altered. This does not necessarily mean that it should be considered as an improvement in relation to competition law. Örstavik states that it is not until the moment when the improvement can be considered as an innovation that the contract shall be changed accordingly. An improvement implies a causality between the original licensed technology and the new invention. The innovation has an actual difference when comparing it with the licensed technology and must be determined objectively from a technological perspective. In relation to grant backs it is of essence that the innovation means some kind of improvement, not necessarily implicating a technological

⁶¹ Reg. 772/2004, preamble, para.14.

⁶² Warren, p. 365.

⁶³ Guidelines 2014/C 89/03, para 129.

⁶⁴ Örstavik, p. 21-24.

improvement but rather interpreted against the impact on the market and if the user experience it as an improvement.⁶⁵ Runesson has the same view as Örstavik, he states that an improvement in a license agreement is defined from the area in which the product is applied and it indicates that the product will be easier to sell on the market or improve the user experience.⁶⁶ In the consultation conducted by the Commission it was proposed that a clarification on the term improvement was needed in Regulation 316/2014. Enhancements should be distinguished from adjustments and an improvement must consist of more than inventions and technical improvements that fall under the scope of the licensed patent and whose application therefor requires the licensor's consent. Moreover, it should cover all improvements of the original licensed technology which the licensee has invented.⁶⁷

The House of Lords gave their opinion in *Buchanan v. Alba Diagnostics Limited*. and stated that the term improvement must be defined in its context meaning that it should be given a wide commercial interpretation rather than a narrow technological meaning. Therefore, an “improvement” correlates to the information that enables the manufacturing of a more efficient product than the licensed patent. With regard to grant backs Lord Hoffman further states that as long as the conditions is fair inventors who wish to develop their inventions should be able to lend capital on the security of future rights.⁶⁸

3.5.1 Severable and non-severable improvements

The former know-how Regulation from 1989 defined a severable improvement as an innovation that could be used without revealing the licensor's know-how.⁶⁹ In 1996, Regulation 240/96 defined an improvement as an innovation that could be separated from the licensed technology.⁷⁰ The definition of a severable improvement was first defined when Regulation 772/2004 was adopted. According to the guidelines, a severable improvement could be utilised without infringing on the licensed technology. The motivation behind the separation of severable and non-severable

⁶⁵ Örstavik, p. 197-198.

⁶⁶ Runesson, p. 52.

⁶⁷ Public Consultation on the draft proposal for a revised block exemption and guidelines for technology transfer agreements. Answer by Licensing Executives Society, p. 2-3.

http://ec.europa.eu/competition/consultations/2013_technology_transfer/les_en.pdf. (Accessed 2015-10-15).

⁶⁸ *Buchanan v. Alba Diagnostics Limited* (2004 UKHL. 5), para. 29-32.

⁶⁹ Reg. 566/89.

⁷⁰ Reg. 240/96.

improvements was that a severable improvement could not be used without the licensor's permission, as a result no restrictive effect on competition could occur.⁷¹

According to Örstavik, the definition must be made in relation to the licensed object and in accordance with a concrete value. The definition from a patent law perspective can only be seen as a starting point which means that even if an improvement does not infringe on the licensed technology it can still be considered as non-severable from a contract law perspective. The terms of the contract determines the evaluation of the improvement and since the agreement can contain know-how which is included in the license the improvement can still be non-severable.⁷² This view is shared by Bastidas Venegas, as well as Runesson which argues that a non-severable improvement is defined in the context of the contract and not from a patent law perspective.⁷³ An improvement which is outside of the license agreement must therefore be seen as separate and constitute independent innovations. However, this does not mean that the licensee freely can use the innovation and not be exposed to liability or violate other clauses in the agreement. The license agreement states how the word improvement is defined and it is not uncommon that the scope is wide, meaning that all solutions to the technological problem is included or that all innovations that relate to progress within the area is implicated.⁷⁴

In certain circumstances the licensor has excluded information in the license agreement due to the fear of sharing information that would result in an advantage for the licensee. The advantage can consist of information that the licensee can use to circumvent the patent or to invent a similar technology once the patent has expired. As held by Örstavik, the improvement should be seen as severable if the information has not been mentioned in the license agreement. However, the circumstances during and after the establishment of a license agreement can conclude that the invention is non-severable.⁷⁵

In terms of value it is important to distinguish improvements from each other. A severable improvement which can be used independently is more likely to have a higher value compared to an improvement which is connected to the licensed technology.⁷⁶ Concerning know-how Lidgard held

⁷¹ Guidelines 2004/C 101/02, para. 109.

⁷² Örstavik, p. 281.

⁷³ Bastidas Venegas, p. 560 and Runesson, p. 52.

⁷⁴ Runesson, p. 52-53.

⁷⁵ Örstavik, p. 281.

⁷⁶ Engling, p. 746.

that severable improvements have a higher commercial value compared to non-severable improvements. The licensee cannot have exclusive access to non-severable improvements since they are an integrated part of the licensed technology.⁷⁷

Bastidas Venegas, on the other hand, argues that the distinction between severable and non-severable improvements established by the Commission in the Guidelines to Regulation 772/2004 is inconsistent from a welfare perspective. The separation is based upon patent law standards in which the social value is not considered.⁷⁸ The patent standard only considers the substance of the patent in comparison with other technology on the market. It does not include the cost of research and development or the potential influence on the market created by the improvement to the invention.⁷⁹ Competition law should consider social value since exploitation of the improvement has an impact on welfare. An improvement can have a higher social value than the initial licensed technology. Consequently, the welfare perspective promotes the protection of the licensee's incentive to innovate. The former rule established in Regulation 772/2004 strengthens the patent-holders position and does not protect the interest of social welfare. It accepts the view that non-severable improvements should be defined from a patent law perspective. Patent law should not govern contract law since conditions of license agreements affect the market.⁸⁰

As mentioned, a limitation of competition can be accepted if it is objectively necessary.⁸¹ Bastidas Venegas, held that an exclusive grant back for a non-severable improvement cannot most likely be seen as objectively necessary since a licensor can use the advantage of the monopoly to negotiate before concluding a license agreement. There are other restrictions available such as high royalty, non-exclusive grant backs and restriction of the licensee's use of the improvement. He further questions how it can be objectively necessary to transfer a non-severable improvement when there are other options available.⁸² Regulation 316/2014 contains no distinction between severable and non-severable improvements and all improvements are currently under individual assessment.⁸³ That does not hinder an approval of a grant back clause when it is evaluated under art. 101(3) TFEU.⁸⁴

⁷⁷ Lidgard, p. 205.

⁷⁸ Bastidas Venegas, p. 575.

⁷⁹ Örstavik, (2005), p. 97.

⁸⁰ Bastidas Venegas, p. 575.

⁸¹ Guidelines 2014/C 89/03, para. 12(b).

⁸² Bastidas Venegas, p. 561.

⁸³ Reg. 316/2014 art. 5(1).a.

⁸⁴ Whish, Bailey, p. 823.

3.5.2 Improvements in different industries

In Regulation 772/2004 exclusive grant backs for severable improvements were not exempted from the application of art. 101(1) TFEU. The limitation was not connected to any industry or business.⁸⁵ When Regulation 316/2014 was adopted severable and non-severable improvements were under individual assessment and once again there had been no distinction between industries.⁸⁶ Örstavik opposes to the Commission's view since the effect of a grant back can vary depending on which industry the license agreement is applied to. A technological improvement can occur by use of technology but also by research and development. If the industry develops the technology by use the grant back is more likely to have less effect, however, if the industry pursue active research and development the licensee's incentive to innovate is likely to be reduced by a grant back clause due to the substantial investments.⁸⁷

3.6 Duration of the license agreement and its impact on grant back clauses

The licensee's opportunity to develop and exploit non-severable improvements correlates to the initial licensed patent and its validity. If the original patent has expired or been invalidated the licensee can use or license their non-severable improvement independently of the licensor's consent.⁸⁸ If the license agreement has a duration that is longer than the original licensed patent's term, a grant back clause can hinder competition by prolonging the time for which a licensee cannot develop non-severable improvements.⁸⁹

Art. 2.2 in Regulation 772/2004 and Regulation 316/2014 state that the group exemption is valid under the circumstances that the original licensed technology is valid and active and as long as the know-how is secret.⁹⁰ Art. 2.2 has been interpreted as meaning that as long as there is one valid patent or know-how in the licensed product the group exemption is applicable. Consequently, the application of the group exemption would be extended by the inclusion of improvements in the license agreement.⁹¹ According to Domeij, a non-severable improvement should be seen as severable when it is developed at the end of the license agreement, invalidating the grant back

⁸⁵ Guidelines 2004/C 101/02.

⁸⁶ Guidelines 2014/C 89/03.

⁸⁷ Örstavik, p. 344.

⁸⁸ Max Planck Institute, p. 196.

⁸⁹ Örstavik, p. 96.

⁹⁰ Regulation 772/2004 and Regulation 316/2014.

⁹¹ Örstavik, p. 284.

clause and an obligation to provide an exclusive license.⁹² However, distinction is not necessary under the current Regulation 316/2014 since both severable and non-severable improvements are under individual assessment.⁹³

After the license agreement has expired the licensee has the full possibility of determining how the improvement is used, including in those situations where the licensor has the permission to keep using the development. As held by the Commission in *Delta Chemie*, the licensor does not have a possibility to obtain control over the licensee's invention after the agreement has expired and the licensee must be able to use the invention it has developed. The decision indicates that the licensee is allowed to manufacture severable improvements after the licensee agreement had expired, but not non-severable. Non-severable improvements were interpreted as inventions that included the use or exposure of the licensor's know-how. The know-how can only be protected as long as it is not known to the public.⁹⁴

3.7 Market share

The aim of the technology transfer agreement is to improve economic efficiency and to create pro-competitive effects.⁹⁵ Certain market share thresholds were established in the guidelines to Regulation 316/2014 due to the reduced possibility of small undertakings creating negative effects on competition. If the license agreement is created between competitors and the combined share of the applicable markets do not exceed the limit of 20 percent it is generally seen as an agreement which benefits production or distribution. If the parties are not competitors the level increases to 30 percent. The rule is only applicable during the circumstance that the agreement does not contain any clause that would restrict competition severely.⁹⁶ If the parties to the license agreement satisfy the requirements with the Regulation and the market shares are below the applicable threshold the agreement is presumed not to violate art. 101(1) TFEU since the agreement is in compliance with the conditions of art. 101(3) TFEU. However, the parties can have a combined market share that exceed the allowed percentage and still meet the conditions of art. 101(3) TFEU or be in compliance with art. 101(1) TFEU when it is subjected to an individual assessment.⁹⁷ The

⁹² Domeij, p. 210.

⁹³ Reg. 316/2014, art. 5.1.a.

⁹⁴ *Delta Chemie/DDD 88/563/EEC* (1988), p. 11, 33.

⁹⁵ Whish and Bailey, p. 826.

⁹⁶ Guidelines 2014/C 89/03, para. 10-11.

⁹⁷ Whish and Bailey, p. 827.

Commission states that a restrictive effect on innovation is likely to occur when the licensor has market power and it has been argued that a threshold will protect competition and provide a natural safeguard for the misuse of grant backs.⁹⁸

According to Bastidas Venegas market power does not have an immediate influence on research and development incentives, at least not in technology or product markets. The conditions in the license agreement and the patent's scope will determine the incentive to innovate and not as the Commission argues the licensor's position on the market. The licensor's technological dominance can be a reflection of its market power, which would likely indicate that the technology has a high social value. In these circumstances the licensor has a justification for using its position on the market. Even if the licensor and the licensee do not possess strong market positions the impact can be high when there is a strong grant back provision allowing little incentive for the licensee. Consequently, the market share does not influence the incentive.⁹⁹

According to Örstavik, the market share is relevant when establishing licensing agreements in a line of vertical distribution since it will have a direct impact on the potential for widening the network. This is especially applicable in situations where there is a penetration of a new market and or a new form of technology has been invented. Still, she argues that the market share threshold and the predictions connected to them is hypothetical. The licensor's aim during the negotiations is to restrict competition by imposing a grant back on the licensee, even under the circumstances where the parties have a low market share. This implies that the purpose of the grant back clause is to restrict competition. Hence, there is a contradiction to establishing a market share threshold on agreements which have the purpose to restrict competition. The presumption that the market is not influenced by the license agreement concluded between parties with small market shares cannot be validated. A network of licensing agreements established between parties with small market shares can result in a licensor's control of a specific technology, since the licensor will be funneled by all the licensees in the distribution chain.¹⁰⁰

⁹⁸ Association British Pharmaceutical Industry Response to consultation on the draft proposal for a revised block exemption for technology transfer agreements ("TTBER") and for revised guidelines, p. 3. http://ec.europa.eu/competition/consultations/2013_technology_transfer/abpi_en.pdf. (Accessed 2015-10-02).

⁹⁹ Bastidas Venegas, p. 572-573.

¹⁰⁰ Örstavik, p. 203-204.

4. An American perspective

4.1 Background

In the U.S., the practise of licensing was controlled by the so called “nine no-no’s” in the 1970’s. Exclusive grant backs that obliged the licensee to assign or license patents to the licensor were one of the “nine no-no’s”. The general view was that they reduced innovation.¹⁰¹

A rule of reason approach came in 1988 which was used to evaluate the circumstances in each licensing agreement, if the outcome of the agreement would benefit the market, potential negative effects could be accepted under a rule of reason approach. When the antitrust guidelines came in 1995 the grant back provision in technology licensing agreements was not illegal per se since they were considered to have pro-competitive effects, particularly under non-exclusive terms. By allowing grant backs the licensee and the licensor could share risks relating to research and development and provide a reward to the licensor for contributing to possible further innovation by promoting subsequent improvements. The risks of anticompetitive effects were considered since the incentives of the licensee could be reduced by a grant back provision. It did not necessarily exclude the possibility to use grant back provisions since the anticompetitive effect can be balanced against the benefits of the agreement, resulting in a valid contract.¹⁰² The US Guidelines in 1995 favoured non-exclusive grant back clauses over exclusive ones.

In 1997 Gilbert and Shapiro analysed the US lower courts reasoning and came to the conclusion that there was a list to consider when evaluating grant backs;

- a) the exclusivity in the agreement between the parties
- b) the licensee’s right to retain use of the improvement
- c) the relationship among the parties
- d) the licensor’s right to grant any sub-licenses
- e) the duration of the grant backs
- f) the royalty applied to the grant back
- g) the parties market power
- h) the coverage of the grant backs
- i) whether the grant back clause affect the licensee’s incentive to innovate for the licensor.¹⁰³

¹⁰¹ Regibeau and Rockett, p. 40-41.

¹⁰² Ibid., p. 40-41.

¹⁰³ Gilbert and Shapiro, p. 283-349.

4.2 The Guidelines for Antitrust Enforcement and Intellectual Property Rights

The conditions for which the grant back is negotiated can vary in scope, term, field of use and duration. It may give exclusive rights to use future improvements solely to the licensor, leaving none to the licensee, or it may allow both parties to share the developments but exclude other parties. It can be non-exclusive, allowing one or both contracting parties to license improvements to others. A grant back must not necessarily be related to the initial intellectual property, but be independent. Remuneration may consist of a fixed royalty or be provided royalty-free.

The general view in the U.S. is that grant backs, especially on non-exclusive terms, offer efficiencies for both licensees and licensors. It facilitates downstream licensing since it provides an efficient way to estimate the licensed intellectual property value. In addition, a non-exclusive grant back can provide for an option to increased royalty rates where the nature and value of future improvements is uncertain. A grant back can facilitate the bargaining and encourage information exchange by eliminating a licensor's concern that a licensee will possess a blocking patent position in the future. Even if grant backs have several benefits negative effects on competition are recognized. An exclusive grant back provides that the original licensor receive all of the rewards of any follow-on invention created by the licensee. Such a provision discourage innovation since the licensee will not receive any benefits from future improvements. Grant backs may also have the potential to extend the licensor's market power due to the fact that many improvements made by different licensees will end up at the licensor. These can be used to obtain control of the technology during the life of the original patent, but often for an extended time as well. However, these potential concerns must be measured against the "but for" argument meaning that the amount of innovation that might have occurred in the absence of the licensing restraint must be reviewed. Without the security of a grant back provision, a licensor may be hesitant to license its intellectual property to others, due to the risk that it would be prevented from accessing and benefiting from any follow-on improvements to its own technology.¹⁰⁴ It was concluded that grant backs should be evaluated in accordance with the rule of reason approach since no decisive factor could be given to determine when a grant back is illegal.¹⁰⁵

¹⁰⁴ U.S. Dep't of Justice & Fed. Trade Comm'n, *Antitrust Enforcement and Intellectual Property Rights: Promoting Innovation and Competition* (2007), p. 91-93.

¹⁰⁵ U.S. Dep't of Justice & Fed. Trade Comm'n, *Antitrust Enforcement and Intellectual Property Rights: Promoting Innovation and Competition*, p. 98.

4.3 Case-law

Prior to *Hartford-Empire Co. v. United States*, grant backs was never found to be illegal. The Supreme Court chose to impose a limited prohibition on grant backs due to the concern of reduction of innovation.¹⁰⁶ In *Transparent-Wrap Machine Corp. v. Stokes & Smith Co.* the criteria for determining whether grant-backs violate antitrust laws were considered for the first time. Transparent Corporation had patents on a machine that manufactured, filled and sealed cellophane packages. Stokes & Smith Co. obtained an exclusive North American license to Transparent's patented process, including an assignment back of rights to patents that improved the machine or were used in connection with the machine. According to the contract, the licensee should submit any patentable idea to the licensor so that the licensor could apply for patents derived from these ideas. The licensee had access to utilise these patents on any non-competing product with no additional payment. Stokes & Smith sued Transparent Corporation stating that the grant back clause was not enforceable due to the fact that it was against competition law. Prior to the lawsuit Stokes & Smith had developed an improvement that fell within the agreement but they refused to assign it to Transparent Corporation. When the case came to the Court of Appeal it was held that the grant back clause was used to force others to buy what was outside "the four walls of the patent" which meant that the licensor would have control over the improvements even after the expiration of the original patent. The Supreme Court did not agree, stating that patent statutes allow for assignment for any consideration, including an exchange for rights to continue to use the basic patent. The clause did not constitute a misuse of a patent's lawful monopoly to use or acquire another lawful monopoly. The combination of the two legal monopolies could only be illegal if the purpose was to substantially lessen competition or create a monopoly. The grant was not considered illegal per se since there had been no proof of misuse and there had been an opportunity to demand any type of consideration in exchange for the patent. A test of reasonableness of the restraint was introduced in the decision. If there is no evidence that the grant back enhances the position of the patent holder or that others who desire a license would be excluded by the agreement, there is no reason to invalidate the agreement.¹⁰⁷

The circumstances of the case were out of the ordinary; the licensee and licensor were not competitors, there was a single licensee and the concerned improvement was non-severable. According to Chevigny the tying of two monopolies cannot be justified by the reasoning that both

¹⁰⁶ *Hartford-Empire Co. v. United States* 323 U.S. 386 (1945), para. 386-390.

¹⁰⁷ *Transparent-Wrap Machine Corp. v. Stokes & Smith Co.* 329 U.S. 637 (1947), para. 638-648.

monopolies are legal, at least not in situations where the underlying legal reasoning is that each legal monopoly must succeed or fail in the market on its own merits.¹⁰⁸

In *United States v. E.I. Dupont de Nemours & Co.* grant backs were approved given that 1) there was no proof that anyone had been denied a license, 2) the licensee could not utilise any improvement without the basic Dupont patents 3) the contract only covered moisture proof cellophane, and 4) Dupont charged an additional royalty for its improvements that later on were added to the license.¹⁰⁹ *United States v. National Lead* ruled against grant backs in the agreement, but the court did not rule out broad grant backs per se. In this case there were multiple restrictions upon the licensee which resulted in the invalidation of the grant back clause such as territorial, production and price restrictions.¹¹⁰

4.4 Responses to the Commission's consultation

The American Bar Association held that Regulation 772/2004 should remain unchanged due to the compromise between the risk of exposure for the licensor's and the licensee's incentive to innovate. By distinguishing between "severable" and "non-severable" improvements a balance between the two interests was established. The proposal is not in line with what the Commission stated in the guidelines for Regulation 772/2004. The distinction between severable and non-severable improvements was motivated by the fact that a licensee could not utilise the licensor's invention without infringing on the licensor's patent which according to the American Bar Association, is sufficient to maintain the licensee's incentive. The proposal would mean that all exclusive grant backs will be assessed in each case. The American Bar Association held that the Commission should maintain the block exemption for exclusive grant backs that cover non-severable improvements. Exclusive grant backs are especially important when competition occurs between standards and not only amongst firms which are active within a given standard. The reason behind this is that any disincentive to innovate is actually outweighed by the necessity to compete with other standards.¹¹¹ As held by *Croplife*, the EU policy in Regulation 772/2004 was consistent with

¹⁰⁸ Chevigny, p. 574-576.

¹⁰⁹ *United States v. E.I. Dupont de Nemours & Co.* 118 F. Supp.41 (D.Del. 1953) aff'd 351 U.S.377 (1956), para. 533-583.

¹¹⁰ *United States v. National Lead.*, 63. F. Supp. 513 (S.D.N.Y. 1945), para. 387-390.

¹¹¹ Joint comments of the American Bar Association's section of antitrust law, section of intellectual property law, section of international law, and section of science and technology law of the european commission draft proposal for a revised block exemption for technology transfer agreements and for revised guidelines, May 16, 2013, p. 5-6. http://ec.europa.eu/competition//consultations/2013_technology_transfer/aba_en.pdf. (Accessed 2015-09-12).

U.S. antitrust law, which is especially important for international participants as their activities are usually structured on worldwide licenses creating pro-competitive licensing agreements. One area where the consequences of the change may be particularly harmful is where companies wish to create a second or alternative source of supply abroad. Moreover, they held that there is no evidence demonstrating that a loss of follow-on innovation by licensees will outweigh the gains of licensor's original inventions by no longer allowing exclusive grant backs for non-severable inventions.¹¹²

¹¹² European Commission Consultation on Proposal for Revised EU Competition Law regime for technology transfer agreements. Answer by Croplife International, p. 2.
http://ec.europa.eu/competition/consultations/2013_technology_transfer/croplife_en.pdf. (Accessed 2015-10-12).

5. Economic analysis of grant back clauses

5.1 Introduction

Competition law has an influence on the balance between the first and second generation of innovation since it governs the agreements in which the conditions are negotiated. To what extent competition law should be involved and why have been discussed in doctrine and literature.¹¹³

As stated in art. 101 TFEU the aim of competition policy is to encourage innovation and the diffusion of technological knowledge.¹¹⁴ Grant backs have often been defended in doctrine as clauses that promote innovation due to the fact that a licensor would not be willing to license their patents of fear that the licensee would gain a competitive advantage. The grant back therefore becomes a necessity for sharing technology and thereby promotes innovation and competition.¹¹⁵ Another possible justification for the use of grant backs is based upon fairness, the licensee would not have the possibility to exploit and use the technology for its improvements if it was not for the licensor's research and development.¹¹⁶

Economic and legal literature have determined two anti-competitive effects that grant backs result in. When a patent-holder use the license agreement to funnel all the licensee's improvements back to itself there is a risk that the licensor obtains or sustains market power. This hinders competition amongst the licensees and third parties, thereby contributing to negative effects on the market. Strong grant backs, such as licenses on exclusive basis or assignments, aggravates the negative development on the market since they have the capacity to prolong the period of patent protection and provide the licensor with a superior technological position even after the patent has expired. Secondly, the grant back may result in an increased incentive to innovate for the licensee due to the future obligation to grant the reward to the licensor. This view has been challenged on several occasions. Improvements developed by the licensee can occur "by accident" or as a by-product, resulting in the fact that the grant back clause does not have any influence on the licensee's incentive to innovate.¹¹⁷ Anderman and Kallaugher held that licensees innovate without considering

¹¹³ Bastidas Venegas, p. 244.

¹¹⁴ Art. 101 TFEU.

¹¹⁵ Regibeau and Rockett, p. 51-52; U.S. Dep't of Justice & Fed. Trade Comm'n, Antitrust Enforcement and Intellectual Property Rights: Promoting Innovation and Competition, p. 92-93.

¹¹⁶ Bastidas Venegas, p. 571.

¹¹⁷ Ibid., p. 244-245.

a potential grant back clause, while Schmalbeck argue that a grant back has a function as an insurance policy for the licensor and does not influence the licensee's incentive to innovate.¹¹⁸

5.1.2 The but-for argument

One common justification for grant back clauses is that the licensor would not share technology without the possibility to insert a grant back clause as a security. In 2011, Regibeau and Rockett, performed an investigation with regard to intellectual property and antitrust concerns in which they criticized the but-for argument from the perspective that there is no method to prove the argument. A licensor can always state that the agreement is conditioned upon the inclusion of a grant back clause without it being proof of the but-for argument.¹¹⁹

Bastidas Venegas describes the argument as the avoiding-future-competition-argument and he held that the argument cannot be validated from a welfare perspective, particularly when the licensee has a high cost for research and development. It is not possible to create a justification based upon the will of the licensor. For instance, the licensor might want to impose price restrictions and state that as a condition for the licensee agreement to occur but it does not result in a legal action from a competition law perspective.¹²⁰ Örstavik, on the other hand, argues that grant backs must be reviewed against the licensee's decreased incentive to innovate in relation to the licensor's increased incentive to innovate. In addition, the need for the licensor to protect its innovations against the licensee needs to be regarded.¹²¹

In order to validate any but-for or avoiding-future-competition argument one would have to provide proof of the fact that the licensor has a legitimate reason to fear that the licensee would use the know-how and information provided for in the license agreement to create advantages on the market. In addition, evidence must be provided for the fact that a licensor can only protect itself through the use of an exclusive grant back in the agreement.¹²²

Rockett and Regibeau's economic analysis of the but-for argument stated that a license agreement, that increases the licensee's possibilities for innovation, has an influence on the licensor's income.

¹¹⁸ Schmalbeck, R, p. 746, SD Anderman and J Kallaughner, p. 208.

¹¹⁹ Regibeau and Rockett, p. 52.

¹²⁰ Bastidas Venegas, p. 571.

¹²¹ Örstavik, p. 339.

¹²² Regibeau and Rockett, p. 52.

Only during the circumstance that the license agreement decreases the licensor's income can a but-for-argument be validated. If this effect does not occur the licensor does not have to fear sharing technology without a grant back clause. The analysis must occur in ex post and ex ante situations.¹²³ An ex ante analysis consider how the licensee's future innovation can influence the conditions of the agreement as well as if the agreement would have be concluded in the absence of the grant back clause. Therefore, an ex ante analyses evaluates a circumstance before it has occurred. An ex post analysis on the other hand is based upon a situation where the license agreement is assumed and in force.¹²⁴

According to Regibeau and Rockett, the but-for argument can be divided into two different defences. The first one is that the license agreement would not have been established without the grant back clause. Secondly, the absence of a grant back clause result in an increased output-related royalty. The first condition that they establish for any but-for argument is that it must be proven that the licensee's innovation is a result of the licensee agreement. Patent documents are often exposed due to intellectual property law on revelation of information. In addition, there is usually experimental assumptions when inventing technology. The combination between revealed information and experimental occurrences result in a stronger likelihood for the assumption that non-severable innovations is a result of the license agreement compared to severable innovations. Another conclusion was that a non-severable innovation would not contribute to a decline in the licensor's ex post profit, however severable innovation would. Furthermore, a grant-back clause does not lead to an increased possibility for the initial technology to be licensed if the following innovations are non-severable in comparison with severable innovations which decrease the licensors future licensing activity. With regard to royalties they could not establish any firm conclusion on whether or not grant backs had an influence since the results were ambiguous.¹²⁵

5.1.3 Economic efficiency

Grant backs have been held to contribute to efficient exploitation of licensed technology which will create increased competition. The argument can be divided into two different sub-categories. The cost of manufacturing technology is likely decreased due to the license agreement resulting in lower cost and competitive advantage for the licensee. Secondly, grant back and grant forward clauses in

¹²³ Regibeau and Rockett, p. 54.

¹²⁴ Ibid., p. 54, Bastidas Venegas, p. 477.

¹²⁵ Regibeau and Rockett, p. 66.

combination create a structure in which licensees can make the active choice amongst different competing technologies guaranteeing that the most efficient technology will be used.

Bastidas Venegas held that there are two problems with this argument. First of all scholars assume that the licensing efficiency derived from this structure will compensate for the negative output on innovation caused by the use of grant backs. No explanation has been given as to why the positive effects actually outweigh the negative result. As a second problem, grant backs are not always included in the licensing structures. This should result in a limited justification in cases where the licensing network has a scope wide enough to ensure that the licensing efficiency result is large. The guidelines for Regulation 772/2004 contain the same justification but according to Bastidas Venegas this is not an applicable economic argument.¹²⁶

5.1.4 Misappropriation

Another possible justification for grant back clauses is the theory about misappropriation. Firstly, the use of grant back clauses hinder misappropriation by the licensee which means that there is a spill-over of ex ante investments connected to research and development that was given by the licensor to the licensee. An ex ante analysis means that the analysis considers how the conditions of the license agreement affect the licensee's future innovation as well as if the agreement would have been concluded even in the absence of a grant back clause. The improvement may contain a part of the social value of the initial invention. In this circumstance, the licensee is using the licensor's investment when the improvement is utilized and exploited. As Bastidas Venegas mentions, the theory can constitute the foundation for the but-for argument.¹²⁷ Scotchmer argues that this problem cannot be solved since there is no optimal solution that can divide remuneration between the first and second line of innovators fairly.¹²⁸ Patent law creates the first balance by establishing certain requirements for the initial inventor to obtain a patent, but once it has been achieved the patent-holder will use this to bargain against the licensee. Competition law forms the second line of negotiation by stating which terms that can be included in the license agreement and according to Bastidas Venegas there are two different views. First off, the grant back will only be analysed with regard to the protection of market competition resulting in an analysis which is based upon protection of product and technology markets. Secondly, the scope can be determined on a wider

¹²⁶ Bastidas Venegas, p. 572.

¹²⁷ Ibid., p. 572.

¹²⁸ Scotchmer, p. 20-41.

basis and includes the protection of the licensee's incentives to innovate by restraining the licensor's negotiation power through law.

The object for the license agreement is to transfer the use of technology to another party. When this occurs there is usually an additional transfer of know-how which can constitute an alternative source of misappropriation. This know-how can be used during the development of an improvement, which again result in the fact that the licensee can unfairly use the licensor's investments into research and development for its own benefit. This type of misappropriation can be harder to prove in a court system since the evidence for "stealing" information is harder to obtain compared to an unfair use of a patent. In addition, it can result in a hold-up for the licensor which cannot utilise their investments since the licensee now has developed an improvement to which the licensor does not have access. Hence, a possible justification for grant back clauses is that they decrease the risk of misappropriation.¹²⁹

5.2 An economic study on the use of grant backs

In 2011 a study was conducted by Regibeau and Rockett at the request of the Commission. One of the purposes of the investigation was to analyse and interpret the impact of grant back clauses in license agreements from a competition law perspective. The investigation's purpose was to establish an input to the process of creating new Guidelines, rather than creating a policy document.¹³⁰ When evaluating the use of grant backs in licensing agreements the arguments has their foundation upon ex post or ex ante analysis. As mentioned, an ex ante analyses evaluates a circumstance before it has occurred. An ex post analysis, on the other hand, is based upon a situation where the license agreement is assumed and in force.¹³¹

5.2.1 Ex post analysis

In the first ex post analysis it is assumed that there is a one licensee, the parties are not competitors and the license agreement does contain a legal territorial restriction. In addition a running royalty has been given. The licensee develops a non-severable improvement which is exploited in its own market that is defined in the license agreement. As a consequence, the licensee creates a more efficient production resulting in increased sales which in turn provide higher royalties for the

¹²⁹ Bastidas Venegas, p. 573-574.

¹³⁰ Regibeau and Rockett, p. 1-2.

¹³¹ Ibid., p. 53-54.

licensor. From this perspective a grant back clause has no effect since the licensor does not suffer any damage due to the fact that the licensee has been given its own territory. Regibeau and Rockett, held in their investigation that the set up would increase the licensor's will to conclude a license agreement even in the absence of a grant back clause.¹³²

The second scenario is based upon a situation where there is a single license which is concluded between non-competitors. The licensee's first innovation is non-severable. Since the licensee has the permission to market the original technology in the area it should be allowed to manufacture the non-severable improvement in the defined territorial area, unless the license agreement contains a restrictive clause prohibiting this scenario. If the royalty is created on the basis of sales or output the licensor's profit increases as an effect of the licensee's innovation. According to Regibeau and Rockett, the licensor does not suffer any harm since the licensee is not permitted to produce the product in the licensor's territory resulting in the fact that the licensor purely benefits from the licensee's development even in the absence of a grant back clause. The second innovation is severable and this implies that the invention does not infringe the licensor's patent. A severable innovation can both involve an add-on to the initial technology but it can also improve the initial innovation and constitute a substitute for it. An add-on invention should not result in any concern for the licensor since the add-on invention is likely to increase the initial technology's value and the licensor's income ex post. On the other hand if the severable innovation improves the initial technology and substitutes it, the licensor has a legitimate interest of imposing a grant back obligation on the licensee since it could result in their technology being outmoded. The licensee would likely end the initial license agreement or stop remunerating the licensor and start using its own technology. In addition, there would not be any prohibition for the licensee to market the severable substitute invention in the licensor's territory. The grant back clause provide protection for the licensor in these circumstances.¹³³

In the third scenario there is one licensee and the contracting parties are competitors. The other conditions remain the same. The analysis for severable improvements have the same result as above, however non-severable improvements are somewhat less tolerant against territorial restrictions in the license agreement since the licensee will have the opportunity to compete with the licensor on its market. Nonetheless, the income for the licensor will increase provided that the

¹³² Regibeau and Rockett, p. 54.

¹³³ Ibid., p. 55-56.

licensor receive royalties from the licensee's profit. For this to be profitable it is necessary that the received royalty can outweigh the potential loss of income by the new competition from licensee's invention. The result partly provides for a justification to the but-for argument since the absence of a grant back clause decreases the licensor's incentive to license. Regibeau and Rockett state that the problem can be solved by inserting a royalty clause which is based upon the licensee's total sale since it would counter any potential loss with the licensor.¹³⁴

A more advanced situation occurs when there are several licensees which are non-competitors and each licensee has been assigned a territory. Each licensee is the exclusive licensee within its territory. The license agreement does not contain a grant back clause and the royalty is based upon the amount of sales. In the first situation the licensee develops a non-severable improvement which can be used by not only the licensee itself but all the other licensee's connected to the licensor as a result of the grant back. At the same time third parties cannot access the developed improvement since they would have to obtain the licensor's permission. Assuming that the licensor establishes license agreements with the most efficient licensees on the market each licensee probably possesses a cost advantage that is valued higher compared to its competitors. Regibeau and Rockett, assume that the licensee cannot access the other markets but would need to license the improvement to the licensor. In each and every agreement the licensee would receive a portion of the additional value that it has created. The licensor would not only obtain an increased amount of royalties from the exploitation of the licensee's development through the distribution net to other licensees but also from the original license agreement with the innovating licensee. The licensor can negotiate better conditions in its agreements with other licensees' since there is a prospect of access to future innovation which in turn would put the other licensees at an advantage on their territory. Under the circumstance that the licensee could market its non-severable invention on the other licensees markets at no cost disadvantage the inventing licensee's operation would likely drive out the other licensees from their markets since the inventing licensee now has an advantage. The licensor would not be affected since it is not permitted to market into the licensor's own territory.

Regibeau and Rockett viewed such a conclusion as invalid and came up with the "no harm" result in which they argue that the profit that every licensee would be able to receive in its own market is decided by the cost advantage of the local licensee. The period of time when the licensee cannot

¹³⁴ Regibeau and Rockett, p. 54.

conduct active or passive sales into the other licensees' markets will elapse eventually, creating the same circumstances for each licensee.¹³⁵ The impact on the licensor will depend on the conditions of the license agreement. If royalties are set by total sales the licensor will benefit from a higher royalty income as a result from the improved technology. If the agreement states that the licensee only pay royalty for the sales on its own territory the licensor's income decreases. Rockett and Regibeau, state that the first situation is standard. Even if the licensee only pay royalty for the sales on its own territory the license agreement could be written to include all sales without inserting a grant back clause. It provides protection for the licensor against ex post results of the licensee's innovation. Other licensees might suffer damage by the inventing licensee's development but not the licensor.

With regard to severable improvements the primary difference is that the innovating licensee is not bound by the initial license agreement. The innovating licensee is not dependent on the licensor's technology meaning that it is not limited to specific markets. The primary aim for the licensee must be to find the most effective licensees' in every market. It can be a new firm or a licensee that exist in the distribution network set up by the licensor. If an established licensee is chosen, the profits for the licensor will be smaller since the established licensee now has another technology that might compete with the original invention. If a new licensee is chosen the decrease in income for the licensor will likely be less, however it will still result in less royalty from the existing network.

In the last ex post scenario the licensor and inventing licensee were competitors before the original license agreement and the licensee has the prospect of making sales on the licensor's market. There is still an assigned exclusive territory and each licensee is the sole licensee within its territory. The agreement does not contain a grant back clause and the royalty is connected to the output of sales. The outcome of the analysis for this scenario was the same as for non-competitors with the exemption that there might be a possibility for the inventing licensee to market its product on the licensor's market and thereby affect the licensor's sales.¹³⁶

According to Regibeau and Rockett the licensee is permitted to market its invention on the licensor's territory after a certain period of time established in the agreement. However, Regulation 772/2004 art. 4.1 c) iv) and Regulation 316/2014 art. 4.1 c) i) state that it is allowed to insert a

¹³⁵ Regibeau and Rockett, p. 58-59.

¹³⁶ Ibid., p. 59-60.

clause that impose an obligation for the licensor and/or the licensee to not pursue active or passive sales in the other parties territory, as long as it has been established in the license agreement. The licensor would under those circumstances be protected against the licensee's marketing. In addition, Regulation 772/2004 art. 4.1 c) v) and Regulation 316/2014 art. 4.1 c) ii) state that a limitation regarding the licensee's active sales to an exclusive territory, which has been assigned the licensor's other licensees, can be valid under the circumstance that the other licensees' were not competitors to the licensor when the license became active.¹³⁷ The analysis conducted by Regibeau and Rockett, still present a value since a license agreement can expire or be terminated.

In the consultation conducted by the Commission, the Intellectual Property Owners Association raised an opinion relating to the ex post analysis conducted by Regibeau and Rockett. Each license granted by a licensor relates to a technology as it exists but technology is constantly improving and developing. Through grant-back clauses a licensor can make improved technology available to licensees by its distribution network. If technology improvements are non-severable the licensor is usually in the best position to be responsible for new improvements and innovations to ensure that each licensee has the new best technology available. The revenue stream from licensing a technology improvement, where the bulk of the basic technology originates from the licensor, would likely not provide a sufficient incentive to allocate resources to research and development into continued technology improvement. Thus, the licensees' incentive to innovate will not be influenced by a grant back clause. Even in cases where a licensee has a license subject to an exclusive grant-back obligation of non-severable improvements, the licensee will in many cases keep improving the technology to be the best on the market.¹³⁸ In addition, Pinsent Masons lifted the important issue that the licensor can be the weaker party and in those situations the safeguard in the past TTBER was of high importance.¹³⁹ Grant backs ensures the small licensor's opportunity to use another licensee or change field of use.¹⁴⁰

¹³⁷ Reg. 772/2004 art. 4. and reg. 316/2014 art. 4.

¹³⁸ European Commission Consultation on Proposal for Revised EU Competition Law regime for technology transfer agreements. Answer by Intellectual Property Owners Organisation, p. 2-3.
http://ec.europa.eu/competition/consultations/2013_technology_transfer/ipo_en.pdf. (Accessed 2015-11-11).

¹³⁹ European Commission Consultation on Proposal for Revised EU Competition Law regime for technology transfer agreements. Answer by Pinsent Masons, p.3.
http://ec.europa.eu/competition/consultations/2013_technology_transfer/pinsent_masons_en.pdf. (Accessed 2015-10-20).

¹⁴⁰ European Commission Consultation on Proposal for Revised EU Competition Law regime for technology transfer agreements. Answer by Herbert Smith Freehills, p. 6-7.
http://ec.europa.eu/competition/consultations/2013_technology_transfer/herbert_smith_freehills_en.pdf. (Accessed 2015-09-30).

5.5.2 Ex ante analysis

As mentioned, an ex post analysis assume that there is an existing license agreement while an ex ante analysis considers the future impact of inserting a grant back clause in the agreement.

It has been shown that other licensees can suffer damage from one licensee's development of a non-severable improvement. This is likely to result in a decreased incentive for licensees to pay a high royalty to the licensor which will influence the licensor by decreased profits, as a consequence a lower incentive for the licensor to conclude license agreements is established. Regibeau and Rockett conclude in their ex ante analysis that grant back clauses for non-severable improvements do not lead to increased licensing activity, however, the opposite applies to severable improvements. Nonetheless, a policy which is more tolerant against exclusive clauses that concern non-severable improvements cannot be justified.

Secondly, Regibeau and Rockett raised the issue of structure of royalty payments; *Does a grant back clause change the balance between a fixed and running royalty in a licensing agreement?*

Output-related royalties result in higher downstream payments which effects the customer negatively. Hence, an efficiency justification could be made if the exclusion of a grant back clause also increases the output related component of royalty payments.¹⁴¹

5.3 Remuneration mechanisms

According to the guidelines to art. 101(1) TFEU the parties to a license agreement can generally determine the royalty freely without violating art. 101(1) TFEU. This applies to license agreements between competitors and non-competitors. If the licensed technology is part of the final product royalties can usually be calculated on the price of the end product without it restricting competition.¹⁴² From an EU competition law perspective all types of remuneration refer to royalties, at least when interpreted by the Commission.¹⁴³ In comparison, economic and legal doctrine refer to royalties in license agreements as a compensation that correlates to the degree of use.¹⁴⁴

A proportional royalty can either be progressive or degressive with a correlating factor, for instance turnover. A progressive royalty is most commonly used when the invention has to be developed by

¹⁴¹ Regibeau and Rockett, p. 61-62.

¹⁴² Guidelines 2014/C 89/03, para. 184.

¹⁴³ Regulation 316/2014, para. (k), Compare; Guidelines 2014/C 89/03, para. 22.

¹⁴⁴ Bastidas Venegas, p. 390.

the licensee or if the licensee has to conduct specific investments into research and development. The reasoning behind is the increased amount of investments that the licensee most likely will have to make the first years. In addition, the parties can choose a progressive royalty if the licensee has the expectation to create profits based upon quantity. On the other hand, a degressive royalty is likely to be chosen when the future production presume certain factors which the licensee cannot influence and when the parties expect a future substitute that will obliterate the future production. The parties might also chose this option when future production cost is likely to increase due to factors beyond the licensee's control and the consumer is price sensitive.¹⁴⁵ All of the above mentioned royalties are so called running royalties.¹⁴⁶

If the licensee can utilise the licensor's technology, without having to invest in research and development and there is a fixed profit meaning that the licensee does not earn more per unit by producing a higher volume, the choice of royalty would normally be a fixed payment.¹⁴⁷ The payment can be called a lump sum payment or a fixed royalty.¹⁴⁸

5.3.1 The structure of royalty payments

When applying the patent reward standard the royalty should be calculated on the base of the social value of the invention. Otherwise, the licensor would not receive the appropriate reward for the investment into the initial technology.¹⁴⁹ This right is independent of the fact that the licensor utilises its own invention or if the invention is licensed to licensees. It is called the profit-neutrality principle.¹⁵⁰

Choi presented a possible justification for grant backs based upon the structure of royalties. A royalty which is based upon quantity can act as a "hostage" to facilitate the transfer of a new development. The licensor's concern of monetary compensation is discouraged by the use of royalty payments. If the royalty is too high the best available technology will not be traded since the use of a royalty rate might result in a high cost for the licensee. As a solution to this problem a grant-back clause can be inserted in the agreement which would decrease the cost imposed by a quantity based

¹⁴⁵ Runesson, p. 163.

¹⁴⁶ Bastidas Venegas, p. 391.

¹⁴⁷ Runesson, p. 163.

¹⁴⁸ Bastidas Venegas, p. 391.

¹⁴⁹ Ibid, p. 402.

¹⁵⁰ Gallini and Scotchmer, p. 51-78.

royalty. The importance of the technology and the parties' technological portfolios will determine how and to what extent the grant back can be inserted into the agreement. The inclusion of royalty payments in the remuneration structure of a licensing agreement provide the licensor with a greater incentive to transfer the know-how required by the licensee to exploit the initial licensed technology. A grant back clause can reduce the sales-related part of royalty payment resulting in lower payments in the corresponding downstream product markets.¹⁵¹

Regibeau and Rockett, found some support of Choi's argument when conducting their research. When the licensee's innovation is non-severable grant back clauses can reduce equilibrium royalties, meaning that a grant back clause result in lower royalties between the licensor and licensee creating balance between the two parties. However, the correlation of grant-back clauses and royalty payments is not fully proven according to Regibeau and Rockett. They suggest an individual assessment in each case and their study is not enough to validate any presumption that grant back clauses result in lower output-related royalties.¹⁵² CEFIC answer to the consultation suggested an alternative solution to maintain the licensee's incentive to innovate in relation to royalties. The TTBER could provide for an obligation for the licensor to remunerate the licensee for any follow-on inventions. Payment would then be received for exclusive grant-backs or assignments.

5.4 Innovative efficiency

The term open innovation means that undertakings use technological solutions developed by other market participants frequently, which implies that there is a continues need and ability to use intellectual property owned by third parties. Risks connected to open innovation are relating to dependence, such as early termination, bankruptcy and litigation issues.¹⁵³

Interdependence originate in diverse settings, particularly between research and development entities, joint venture set ups and between licensors and licensees. The intellectual property system is based on a balance of interests of existence and scope of intellectual property which is reflected in the license agreement.¹⁵⁴ The balance of different rights is expressed clearly in the guidelines to art. 101(1) TFEU by the Commission. Innovation is an important component for a dynamic and

¹⁵¹ Choi, p. 803-829.

¹⁵² Regibeau and Rockett, p. 63-64.

¹⁵³ De Werra, p. 96.

¹⁵⁴ Ibid., p. 100-101.

efficient market and competition law must contribute to encourage undertakings to invest in research. Therefore, a need to protect the inventor and facilitate exploitation is necessary. On the other hand, competition itself put pressure to innovate for market participants meaning that intellectual property and competition polices must integrate.¹⁵⁵

A general view is that licensees are dependent on licensors. De Werra argues that the globalised environment we live in can result in undertakings rapidly becoming both licensors and licensees.¹⁵⁶ The view has been shared by organisations when the Commission conducted its consultation.¹⁵⁷ As a result, De Werra argues, local regulators and court systems should be careful when adopting a policy which tend to protect licensees. Such a policy would influence the local licensees abilities to use foreign intellectual property and their possibility to operate as licensors in the future. The interdependence between undertakings materializes in how disputes arise but also dispute resolution, it is not limited to issues of substantive law. Business transactions often involve parties from different undertakings and jurisdictions which have created complex agreements amongst each other. Consequently, the high degree of interactions amongst undertakings combined with the use of intellectual property assets increases the chances of advanced multiparty disputes. The risk of intellectual property interdependence is therefore connected to secure the efficiency of dispute resolutions. The parties need to be aware of future possible disputes and possess a higher degree of coordination. In addition, the outcome of one proceeding may be conditioned on another.¹⁵⁸ The change in Regulation 316/2014 will result in an increased amount of contracts being evaluated under art. 101(1) TFEU, since all exclusive grant backs, severable and non-severable are under individual assessment. Opinion holders have argued that this will result in an increased uncertainty in the industry. The fear of concluding an agreement which can be invalidated was considered reason enough to avoid cooperation.¹⁵⁹

¹⁵⁵ Guidelines 2014/C 89/03, para, 8-9.

¹⁵⁶ De Werra, p. 101.

¹⁵⁷ European Commission Consultation on Proposal for Revised EU Competition Law regime for technology transfer agreements. Answer by Pinsent Masons, p.3.
http://ec.europa.eu/competition/consultations/2013_technology_transfer/pinsent_masons_en.pdf. (Accessed 2015-10-20).

¹⁵⁸ De Werra, p.100-103.

¹⁵⁹ European Commission Consultation on Proposal for Revised EU Competition Law regime for technology transfer agreements. Answer by CEFIC, p. 7-8.
[p.3http://ec.europa.eu/competition/consultations/2013_technology_transfer/cefic_en.pdf](http://ec.europa.eu/competition/consultations/2013_technology_transfer/cefic_en.pdf). (Accessed 2015-09-28).

5.4.1 Multiple contributors to innovation

As established, in many situations licensing structures are not easy agreements between two parties. On the contrary, usually many parties are involved with undertakings located cross border.¹⁶⁰ Intellectual property law promote one inventor's property right since they are seen as contributors of innovation and creativity. The intellectual property right possess a social value. Generally, it is assumed that the inventor is the right owner to this value. However, such an assumption is wrong since there are often other participants who have contributed to the social value. A correct economic analysis includes

- a) the right holders of the technology through which the patent is disseminated.
- b) predecessors of work on whose effort the inventor builds
- c) investors who contribute to the welfare in society thereby promoting consumer resources which enables purchases of the right holders work.

It is difficult to consider all factors that contribute to a complete analysis and if the scope is wide there is a substantial risk that the analysis may become imprecise. However, when factors are ignored the risk of creating an unbalanced argument becomes higher.¹⁶¹ As Bastidas Venegas argues, social welfare is not based upon the licensor's will, or the potential unfairness that arise from a licensing agreement, but should be interpreted from a competition law perspective meaning that circumstances which effect consumer welfare and the market correlates to the social welfare.¹⁶² However, the potential unfairness that arise from license agreements may correlate to competition since a loss of investment will affect the undertaking's opportunity to compete. The task of establishing a correct and fair license agreement is not easily achieved since a separation need to be done between the phase of basic research and research and development. This is particularly true for the sector of biotechnology, the sector which promotes the patent system the most.¹⁶³

¹⁶⁰ De Werra, p. 100-101.

¹⁶¹ Eagels, Longdin, p. 76-79.

¹⁶² Bastidas Venegas, p. 571.

¹⁶³ Ghidini, p. 89-94

6. Discussion and conclusion

Regulation 772/2004 treated exclusive grant backs differently depending on if the invention was a severable or non-severable improvement. A non-severable improvement was protected by the TTBER since it could not be used without infringing on the licensed technology. A severable improvement would be subjected to individual assessment since it was held that an exclusive grant back clause relating to severable improvements would decrease the licensee's incentive to innovate. As Bastidas Venegas argues, the Commission defined improvement from a patent law perspective. When Regulation 316/2014 was adopted the separation between a severable and a non-severable innovation was removed and all exclusive grant backs are currently under individual assessment.

Doctrine state that an improvement must be interpreted from a competition law perspective and should not be defined according to patent law. The competition law perspective suggest that an improvement must impact the market, meaning that the consumer experience determine the definition of an improvement. As Örstavik states the interpretation should be functional and flexible and not autonomous as the guidelines propose. The combination between revealed know-how and experimental occurrences result in a stronger likelihood for the assumption that non-severable innovations is a result of the license agreement compared to severable innovations. Regibeau and Rockett's analysis resulted in the fact that a grant back clause relating to non-severable improvements did not lead to an increased possibility for the initial technology to be licensed. However, it is my opinion that their conclusion only can be correct if a non-severable improvement is defined from a patent law perspective. Viewing Regibeau and Rockett's conclusion from a competition law perspective the non-severable improvements should be divided into improvements which infringe the licensed technology and improvements which consists of knowledge transfer. The latest alternative could be included in the TTBER due to the difficulties of providing evidence of misuse. Hence, the licensor's incentive to innovate would not be reduced and the risk of misappropriation would decrease. The licensor would under these circumstances be protected against situations where the licensee circumvents the patent due to the knowledge transfer. If a non-severable improvement is infringing on the licensor's patent there is still a need for the licensor's approval before the product can be marketed. Thus, there is no need to maintain these innovations within the TTBER. Consequently, the change that concern non-severable improvements which consist of know-how might impact industrial co-operation negatively due to insufficient protection.

However, there are other options for a licensor which can be used for protection. With the facilitation of liability and non-disclosure clauses the licensor can prevent use of a new invention which are built upon know-how obtained from the license agreement. In addition, the licensor can impose a non-exclusive grant back on the licensee and be guaranteed a knowledge transfer. Even so, the safeguards implemented in the agreement must result in benefits that outweigh the loss of know-how.

According to Regibeau and Rockett's analysis the licensor would benefit from grant backs if the licensee develops non-severable improvements due to an increased income from both the inventing licensee and potential future licensees which the licensor can license its innovation to. I am sceptical to their conclusion in this aspect since it applies in situations where non-severable improvements infringes on the licensor's invention but disregard situations where the invention is non-severable since it consists of a know-how. The licensor is most likely to lose profit if the development can be exploited without the licensor's consent and the market conceives it as an improvement. However, a non-exclusive grant back, a territorial restriction and a quantity based royalty might counter the effect of a lost profit for the licensor. The balance between remuneration and grant back clauses has been discussed as a potential defence for grant back clauses, since a grant back clause reduce royalty payments which in turn would benefit competition by providing products at a lower cost. In addition, non-exclusive grant backs will allow the licensor to receive know-how on any development that the licensee invent which will put the licensor in the same position as the licensee for the term of the license agreement.

It is my view that competition law should consider social value since exploitation of an improvement has an impact on welfare and an improvement can possess a higher value compared to the initial licensed technology. As mentioned, it is not only the original inventor who has the right to receive remuneration for their inventions. Usually there are many participants which must be considered in a proper economic analysis. The welfare perspective promote the view of Regulation 316/2014 since all agreements containing an exclusive grant back clause will be under individual assessment allowing for a wider analysis of all the factors in the agreement.

The economic rationale behind the use of grant backs is to an extensive extent based upon the so called but-for argument. Bastidas Venegas argues that the rationale cannot be validated and competition law should not be based upon the will of the licensor. The licensor's intention when

concluding a license agreement will be to restrict competition and eliminate future competition, regardless of market power. Hence, the view of Regulation 772/2004 cannot be explained by the inclusion of a market threshold since the object of imposing an exclusive grant back clause is to restrict competition. This is not in accordance with the aim of the EU competition law or the objectively necessary restrictions.

To determine the impact of the change on industrial co-operation I must evaluate what the effect on the market will be. This cannot be done with certainty since there are too many variables which have not been addressed in doctrine. Licensing networks are complicated and multiple economic factors need to be considered. When interpreting and reading Regibeau and Rockett's economic analysis of grant back clauses there are absent factors. They did not assume that the licensor could be in a weaker position compared to the licensee, nor that a licensee can become the future licensor or other economic factors that contribute to social welfare such as external investors. In addition, doctrine states that grant backs influence is different depending on the industry, suggesting that a study for every industry is needed. I would also argue that a justification of the use of an exclusive grant back can indeed not be done based upon the licensor's will or unfairness. The scope of the analysis needs to be wider, if the "unfairness" results in an actual loss which affects competition a possible justification for the use could be found. However, one market players loss in one stage might be recouped in the next, creating balance on the market. With the current rapid market where licensors becomes licensees it is possible that such "unfairness" will not arise.

One obvious result of the change is the uncertainty that arise for undertakings that have created functional licensing agreements before Regulation 316/2014 was adopted. A current functioning agreement must be reviewed with regard to exclusive grant backs which concerns non-severable improvements. Whether the change will lead to uncertainty for other participants is a more difficult question to answer. However, what is certain is that parties cannot include exclusive grant backs connected to either non-severable or severable improvements and be protected by the safe harbour. But as doctrine states, the licensor can use other clauses to balance this effect, such as non-exclusive grant back clauses, territorial restrictions and royalty payments. In addition, the licensor is protected from infringement of its patent as long as it is valid. Thus, the licensee has a limited possibility to exploit the licensor's invention.

The changed view within the EU can have an impact on the international industry. Licensing structures often involve international parties. The U.S. has a different perspective since they evaluate grant back clauses according to the rule of reason, providing them with a higher degree of flexibility. The use of a safe harbour simplify business for parties which plan to enter into a license agreement. Even so, in my opinion a rule of reason approach in the U.S. can be comparable to the individual assessment in the EU suggesting that the change will lead to a higher degree of international conformity. The exclusion of the safe harbour does not invalidate a potential use of an exclusive grant back but each agreement has to comply with the conditions of art. 101(3) TFEU for the agreement to be valid and enforceable. The four conditions in art. 101(3) TFEU can be compared to the analysis conducted by Gilbert and Sharpino or the evaluation in United States v. E.I Dupont de Nemours & Co. The aim is to protect competition and in order to achieve the goal several circumstances need to be evaluated. An individual assessment would consider the context in which a grant back clause is imposed resulting in an economic analysis of higher quality. The change in art. 5.1(a) of Regulation 316/2014 appears to provide flexibility which is needed since technology develops rapidly. Nonetheless, it is not possible to determine if the licensor's other possible safeguards are sufficient to maintain the industry's incentive to license or if in fact competition will suffer since undertakings will refrain from entering into licensing agreements due to the adoption of Regulation 316/2014. Therefore, I cannot make a conclusion with certainty, however, the change appears to lead to a higher degree of flexibility and international conformity.

Bibliography

Legislation

Consolidated version of the Treaty of Functioning of the European Union OJ C 326/47 2012.
(TFEU)

Regulations

Commission Regulation (EEC) No 556/89 of 30 November 1988 on the application of Article 85(3) of the Treaty to certain categories of know-how licensing agreements OJ L 61, 04/03/1989.

Commission Regulation (EC) No 240/96 of 31 January 1996 on the application of Article 85(3) of the Treaty to certain categories of technology transfer agreements OJ L 031 , 09/02/1996.

Commission Regulation (EC) No 772/2004 of 27 April 2004 on the application of Article 81(3) of the Treaty to categories of technology transfer agreements OJ L 123 , 27/04/2004.

Commission Regulation (EU) No 316/2014 of 21 March 2014 on the application of Article 101(3) of the Treaty on the Functioning of the European Union to categories of technology transfer agreements OJ L 93, 28/3/2014.

Communication

Guidelines on the application of Article 101 of the Treaty on the Functioning of the European Union to technology transfer agreements 214/C 89/03 OJ C 89, 28/03/2014.

Guidelines on the application of Article 81 of the EC Treaty to the technology transfer agreements, 2004/C 101/02 OJ C 101, 27/04/2004.

Official documents

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

An Industrial Property Rights Strategy for Europe, Communication from the Commissions to the European Parliament, the Council and the European Economic and Social Committee, Brussels 16 2008, COM (2008) 465 final 3.

Preamble to the proposed Council Regulation on the Community Patent, Working Document of 30 Oct 2009 (15149/09) of the Council of the European Union and Conclusions on an Enhanced Patent System in Europe adopted by the Council of the European Union on 4 December 2009.

Report to the Commission

Regibeau, P, and Rockett, K, COMP/2010/16, *Assessment of potential anticompetitive conduct in the field of intellectual property rights and assessment of the interplay between competition policy and IPR protection*, 2011. doi: 10.2763/76427.

Consultations

Association British Pharmaceutical Industry Response to consultation on the draft proposal for a revised block exemption for technology transfer agreements ("TTBER") and for revised guidelines, p. 3. http://ec.europa.eu/competition/consultations/2013_technology_transfer/abpi_en.pdf. (Accessed 2015-10-02).

European Commission Consultation on Proposal for Revised EU Competition Law regime for technology transfer agreements. Answer by Croplife International, p. 2. http://ec.europa.eu/competition/consultations/2013_technology_transfer/croplife_en.pdf. (Accessed 2015-10-12).

The European Chemical Industry Comments on the Commission proposal for revised competition regime for Technology Transfer Agreements, p. 7-8. http://ec.europa.eu/competition/consultations/2013_technology_transfer/cefic_en.pdf. (Accessed 2015-11-15).

European Commission Consultation on Proposal for Revised EU Competition Law regime for technology transfer agreements. Answer by Herbert Smith Freehills. http://ec.europa.eu/competition/consultations/2013_technology_transfer/herbert_smith_freehills_en.pdf. (Accessed 2015-09-30).

European Commission Consultation on Proposal for Revised EU Competition Law regime for technology transfer agreements. Answer by Intellectual Property Owners Organisation.
http://ec.europa.eu/competition/consultations/2013_technology_transfer/ipo_en.pdf. (Accessed 2015-11-11).

European Commission Consultation on Proposal for Revised EU Competition Law regime for technology transfer agreements. Answer by Pinsent Masons, p.3.
http://ec.europa.eu/competition/consultations/2013_technology_transfer/pinsent_masons_en.pdf. (Accessed 2015-10-20).

Public Consultation on the draft proposal for a revised block exemption and guidelines for technology transfer agreements. Answer by Licensing Executives Society, p. 2-3.
http://ec.europa.eu/competition/consultations/2013_technology_transfer/les_en.pdf. (Accessed 2015-10-15).

Joint comments of the American Bar Association's section of antitrust law, section of intellectual property law, section of international law, and section of science and technology law of the European Commission draft proposal for a revised block exemption for technology transfer agreements and for revised guidelines.
http://ec.europa.eu/competition//consultations/2013_technology_transfer/aba_en.pdf. (Accessed 2015-09-12).

Literature

Anderman, S and Schmidt, H *EU Competition Law and Intellectual Property rights. The regulation of innovation*, Second edition, Oxford University Press, Oxford, 2011.

Anderman, S and Kallaugher, J *Technology Transfer and the New EU Competition Rules- Intellectual Property Licensing after Modernisation*, Oxford University Press, Oxford, 2006.

Bastidas Venegas, V "*Promoting Innovation?: a legal and economic analysis of the application of Article 101 TFEU to patent technology transfer agreements*", PhD, Stockholm University, Stockholm, 2011.

De Werra, J, *Managing the risks of intellectual property interdependence in the age of open innovation*. Beldiman, D, (ed.), In *Innovation, competition and collaboration*, Northampton, Edward Elgar Publishing Limited, Northampton, 2015.

Domeij, B *Patentavtalsrätten*, Second Edition, Nordstedts Juridik, Stockholm, 2010.

Eagels, I, and Longdin, L *Refusals to license intellectual property*, Hart Publishing, Oxford, 2011.

Ghidini, G *Innovation, Competition and Consumer Welfare in Intellectual Property Law*, Edward Elgar Publishing, Cheltenham, 2010.

Gölstam, C-M *The license and competition law*, Phd. diss., Uppsala University, Uppsala, 2007.

Lidgard, H-H *Licensavtal i EU: kommentar till kommissionens förordning 240/96 om tillämpning av Romfördragets artikel 85.3 på vissa grupper av avtal om tekniköverföring*, Nordstedts Juridik, Stockholm, 1997.

Runesson, E *Licens till patent och företagshemligheter i avtals- och kontraktsrätten*, Nordstedts Juridik, Stockholm, 2015.

Schovsbo, J *Constructing an efficient and balanced European patent system: 'muddling through'*. Geiger, C (ed.). In *Constructing European Intellectual Property*, Edward Elgar Publishing, Inc., Northampton, 2013.

Wetter, Karlsson, Östman *Konkurrensrätt: en kommentar*, fourth edition, Thomson Reuters, Stockholm, 2009.

Whish, R and Bailey, D *Competition Law*, eight edition, Oxford University Press, Oxford, 2015.

Örstavik, I B *Innovasjonsspiralen: patentrettslige, kontraktsrettslige og konkurranserettslige spørsmål ved forbedring av patenterte oppfinnelser*, PhD diss., Oslo University, Gyldendal Akademisk, Oslo, 2011.

Articles

Chevigny, P.G. *The Validity of Grant-Back Agreements under the Antitrust Laws*, Fordham Law Review 34, 1966, 569 – 592.

Choi, J. P. “*A Dynamic Analysis of Licensing: The Boomerang Effect and Grant-Back Clauses*” *International Economic Review* 43, 2002, 803-829.

Warren, Z *Technology Licensing and Settlements of IP Disputes: Implications of the European Commission’s New Regime*, *Journal of Competition Law & Practise*, Vol. 5 Issue 6, 2014, 365.

Engling, T.J *Improvements in Patent Licensing*, *Journal of the Patent and Trademark Office Society*, Vol. 78, 1996, 746.

Gallini, N & Scotchmer, S *Intellectual Property: When is the Best Incentive System?*, 2002, 51-78.

Gilbert, S *Antitrust Issues in the Licensing of Intellectual Property: The Nine No-Nos Meet the Nineties*, *Brookings Papers: Microeconomics*, 1997, 283-349.

Max Planck Institute, *Comments on the draft Technology Transfer Block Exemption Regulation*, *International Review of Intellectual Property and Competition Law IIC*, Vol. 35 Nr. 2, 2004, 187-196.

Sansuvan, K *Separation of Powers in intellectual property rights: Balancing global intellectual property rights or monopoly power in the twenty-first century by Competition law*, *New York International Law Review*, 2013, 26: 1-52.

Schamlbeck, R *The Validity of Grant-back Clauses in Patent Licensing Agreements*, 42 *The University of Chicago Law Review*, 1975, 733,734.

Scotchmer, S *Standing on the shoulders of Giants: Cumulative Research and the Patent Law*; *Journal of Economic Perspectives*, 5(1), 1991, 20-41.

Warren, Z *Technology Licensing and Settlements of IP Disputes: Implications of the European Commission's New Regime*, *Journal of Competition Law & Practice*, 2014, Vol.5 Issue 6.

Örstavik, I B *Technology Transfer Agreements: Grant-Backs and No-Challenge Clauses in the New EC Technology Transfer Regulation*, *International Review of Industrial Property and Copyright Law IIC*, 2005, Vol. 36 Nr.1.

Table of cases

European Commission Decisions

Commission decision *Telenor/Canal+/Canal Digital Commission* (2003) COMP/C.2- 38.287.

Commission decision 88/563 *Delta Chemie/DDD* (1988) OJ L 309/34.

European Court of Justice

Case 258/78, *L.C. Nungesser KG and Kurt Eisele v. Commission of the European Communities* (1982) ECR 2015.

House of Lords

Buchanan v. Alba Diagnostics Limited (2004 UKHL. 5).

U.S. Case-law

Hartford-Empire Co. v. United States 323 U.S. 386 (1945).

United States v. National Lead., 63. F. Supp. 513 (S.D.N.Y. 1945).

Transparent-Wrap Machine Corp. v. Stokes & Smith Co. 329 U.S. 637 (1947).

United States v. E.I. Dupont de Nemours & Co. 118 F. Supp.41 (D.Del. 1953) aff'd 351 U.S.377 (1956).

