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THE WINNER TAKES IT ALL?

Or to what extent may it be regarded anti-competitive conduct
to combine technical tying and patents?

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Abstract

The thesis examines to what extent dominant undertakings, within the evolving technology industry, are considered to use an anti-competitive conduct when strategically combining technical tying and different patent combinations. Such conduct may result in leveraging a position from one product market to another, leading to evergreening and possible abuse of such dominant position, in accordance to Article 102 TFEU. The EU patent system, is becoming more centralized, and may contribute to a better-balanced cooperation between competition law and patent law. The US perspective is considered in order to discuss whether potential guidance is needed within the EU legal assessment.

Keywords: Article 102 TFEU, anti-competitive effect, technical tying, strategic patenting, complex patent combinations, evergreening, technology industry

Summary

Technical tying refers to products, which are interrelated by their technical design in order to function in conjunction. On the one hand, if there is a natural and commercial link between the different components technical tying may enhance efficiency, reduce transaction costs and create savings in production and distribution, leading to a superior performance. On the other hand, if dominant undertakings tie products that are distinctive, it is likely to lead to an abuse falling under Article 102(d) TFEU. However, distinctive products are difficult to establish since the technology is constantly evolving.

The technology industry is growing and single products increasingly consist of different technical components, with cumulative inventions provided for in different claims or sub combinations of claims, which have to fulfill the unity criteria to be patentable. The difficulty occurs when the unity criteria are fulfilled, but the combination of products may be regarded as two separate product markets. Two different products consisting of the same patent is mostly regarded as one product since the link between the products is so strong. However, where follow-on patents play a part, a tie between two separately patented products may result in attempts to extend the protection of the patent and lead to evergreening. A tie between one patented and one unpatented product may result in leveraging of a dominant position on the market. Such conduct may be regarded anti-competitive in accordance to Article 102 (d) TFEU in certain situations, for example: where the combination of two separate products is not in accordance to commercial usage on the market, where the consumer is coerced into buying the products, or where an undertaking uses its dominant position in the tied market to preserve ancillary activity.

An evolving technology industry and the technical integration of complex structures entail difficulties to detect an undertaking's abusive behavior. It is not for an undertaking to decide on the period of the patent protection or to *take it all*, i.e. to foreclose competitors and obstruct competition on the market. The US perspective shows a different and more developed picture, which prohibits dominant undertakings to use tying arrangements of patented and unpatented products.

In technical tying arrangements a cautious assessments of the separate products has to be done especially since the technology industry is constantly evolving. Assessment for anti-competitive behavior must be directed to the complex technical functions. Additionally, cooperation between the new European Patent Court and the Court of Justice of the European Union could established and maintain a balance between competitors and undertakings.

Preface

This thesis indicates the finishing point of my master studies in European Business Law, at Lund University, and the first step towards my future profession, which inspired me to find a subject that really interested me. Although I had competence in competition law, patents and complex technological structures were completely new fields to me.

When I read the new *Nestle, Nespresso* case¹ with the attempt to rely on surrounding patents when the patents of the capsules had expired. I immediately thought about a connection to the *Microsoft* case² being the step-in-stone of technical tying with its technological complexity. I questioned whether technical tying of products is to be regarded as innovative in the sense of a new product or only strategic in order to gain a better position and foreclose competitors to enter the market.³ It also rose the question to what extent such strategic use could be considered anti-competitive.

Furthermore, it was the technology industry that attracted me the most, since it is constantly evolving which, makes it really difficult to distinguish what is a product.

The support and confidential encouragement that Professor Hans Henrik Lidgard gave me to develop my thesis is something I am extremely thankful for. I would also like to thank him for his patience with all the different ideas I wanted to include before I reached the final content of this thesis.

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¹ The High Court of Justice UK, Case No: Hc12d02673 *Nestlé Nespresso v. Dualit limited*, Chancery division, Patents Court, 22 April 2013, with other national litigations in different MS.

² Case T-201/04 *Microsoft Corp v. Commission* [2007] ECR II-3601.

³ H K S Schmidt, 'Competition Law and Innovation: Technological Integration', in Steven Anderman and Ariel Ezrachi (eds) *Intellectual property and competition law: new frontiers* (Oxford University Press, 2011) p 207.

Abbreviations

AG	Advocate General
CJEU	Court of Justice of the European Union
EPC	European Patent Convention
EPO	European Patent Office
EU	European Union
IP	Intellectual Property
IPRs	Intellectual Property Rights
OJ	Official Journal of the European Union
PC	Personal Computer
R&D	Research and Development
SME	Small and Medium sized Enterprises
TEU	Treaty on European Union
TFEU	Treaty on the Functioning of the European Union
US	United States of America
WMP	Windows Media Player

1 Introduction

1.1 Background

The technology industry is based on combinations of patents within a rapidly evolving development, which results in interlinked products of complex structures. The mobile phone industry is a clear example of a development, in which the mobile phone is now interlinked with add-on features like music player, camera, music device, and Internet browser.⁴ Technical tying is used to provide such an attachment, with products that are integrated and sometimes combined in a natural relation.⁵ Such integration of products should be given a greater consideration before a legal doctrine is further developed.⁶

Technical tying could be regarded as a normal feature in commerce, and not at all suspicious from a competition point of view;⁷ patents protecting the product in such complex structures could also be looked upon as essential instruments for promoting innovation.⁸ The issue occurs when these two areas are combined, and when legal strategies are included as part of such complex product systems.⁹

When dominant undertakings apply this kind of structure of combination to extend the dominant position and the exclusivity given through patents, it may on the one hand lead to an evergreening stage for the main product at stake.¹⁰ It may however on the other hand, with technical tying involved, provide an extended market position, leading to increased sales, which may even eliminate competitors.¹¹ Many questions occur with such an invisible line between the necessary protections of an invention with attached or improvement patents,¹² and a complex abused system leading to an enhanced command over ownership, control and knowledge, which in turn may hinder the competition on the market.¹³

⁴ H K Skytte Schmidt, *A comparative analyses of EC competition and US antitrust approaches to tying with special reference to economic thinking and intellectual property rights* (PhD thesis, Department of Law, University of Essex, October, 2008) p 2.

⁵ S Bishop and P Marsden, 'Editorial The Article 82 Discussion paper: A missed opportunity' [2006] *European Competition Journal*, April, p 2.

⁶ H K S Schmidt (n 3) p 187.

⁷ R Which and D Bailey, *Competition law* (7th edn, Oxford University Press 2012) p 689.

⁸ Green Paper on the Community patent, and the patent system in Europe COM (97) 314, final 24.06.1997, Communication from the Commission p 6.

⁹ The study uses "technology industry" which is commonly used in EU; in the US discussions the concept of "technological industry" is used with the same meaning.

¹⁰ J R Thomas, 'Patent "Evergreening": Issues in Innovation and Competition' (2009) November 13, Congressional Research Service, p 7.

¹¹ S Bishop and P Marsden (n 5).

¹² J R Thomas (n 10) p 1.

¹³ G Tritton, R Davis, M Edenborough, J Graham, S Malynicz and A Roughton, *Intellectual property in Europe* (3rd edn, Thomson/Sweet & Maxwell 2008) pp 3-4.

1.2 Purpose

The purpose of this study is to examine to what extent dominant undertakings may be considered, according to EU legislation, to use an anti-competitive conduct, when using technical tying of products in combination with patents as well as the effects it may have on the EU market.

1.3 Method and Material

The material will be analyzed through the traditional legal dogmatic method signifying that it will be evaluated and balanced to understand the law as it is, in relation to the purpose provided for. Traditional legal sources will be used, such as EU treaties, the US code, relevant case law, guidelines, commentaries, but also articles from scholars providing legal opinions or ideas from both EU and US.

The different legal areas of competition law and patent law will be compared and analyzed together, since both have the common objectives to promote innovation. Technical tying of products on the market and European patent protections will be balanced with the pro- and anti-competitive effects on the EU market in order to understand to what extent such attempt to reach evergreening may be regarded as anti-competitive.

The US perspective will provide similarities and differences and will be weighted against EU legal issues in order to clarify the effect the conduct of an undertaking may have on the EU market; both the way of balancing patents and competition and the assessment of such conduct made by the Court of Justice of the European Union (CJEU) will be taken into consideration.

For the purpose of this thesis, the assumption is that follow-on patents or improvements is made by the same undertaking; it would otherwise require an profound reasoning around licensing of (Intellectual Property) IP which would be subject for a different thesis.

Antitrust law, being the US terminology will be used as a synonym to competition law in the EU terminology. Integrated, interlinked, interrelated are words that will be used as synonyms when discussing products. Patent structures will indicate the structure within an individual patent grant and its complementary follow-on patents but also technical integration with interlinked products.

The relevant EU legislation and case law from the CJEU will be analyzed to the necessary extent to deliver a clear picture. The cases will be chosen in accordance to the legal significance that they have had for the development of the legal issues.

Articles and publications by various legal scholars and practitioners within EU and US will be studied to provide a better understanding of the legal issue. Articles will be chosen on relevant subjects but also through selection of authors by academic reputation, as well as by different ways of discussing and balancing technical tying with anti-competitive behavior and considering evergreening in relation to patents. Some material from the pharmaceutical industry will also be assessed when discussing the use of incremental innovation of patents since there is no fundamental difference between the pharmaceutical industry and other technology

industries in this area.¹⁴ This input will finally be weighted and balanced in the analysis in order to fulfill the purpose.

1.4 Delimitation

The purpose is limited to focus only on dominant undertakings i.e. undertakings considered to have a dominant position on the market. Small and medium sized enterprises (SME's) are not considered since it would involve a different analytical approach. SME's do not, to the same extent, rely on tying of products because of their limited market power within competitive markets.¹⁵

Patent strategies and its process within the R&D will not be considered. The focus rather lies within strategic patenting i.e. from the patent application of different interlinked combinations to the effect it may have on the market in combination with technical tying. This means as well that an economic approach will be very limited; appears only in discussions of efficiency with no focus attached to it.

Licensing of patents and commercial transaction of patents will not be taken into consideration since it would provide a too great enlargement of this thesis.

Since the tying assessment is similar under both the Clayton Act¹⁶ and the Sherman Act,¹⁷ and the latter is more used within the US courts assessment the thesis will not consider the Clayton Act.

As for the registration of patents, the procedure of such arrangement with fraudulent applications, or the providing of misleading information will not be considered. What matters an undertaking chooses to patent, or let remain as trade secrets, will not be considered.

Since the main focus will be on EU legislation, the TRIPS agreement will not be considered in relation to either the EU or the US approach. The US chapter will not function as a comparative study, since it only highlights the most important aspects taken up in chapters 2 and 3. The US approach will only be used in order to give a better understanding of the EU legal system or even to provide a potential guidance.

1.5 Disposition

The following section 1.6 has been added to provide a better understanding of the interaction between the two different legal areas i.e. technical tying and strategic patenting within complex combinations of patents.

Chapter two will provide an initial objective description to technical tying. Technical tying will be approached from an objective point of view providing both

¹⁴ Response to the Commissions preliminary report, 'EU Pharmaceutical Sector Inquiry report final, Reference 39514, 29.01.2009 European Commission, Directorate General for Competition, p 2.

¹⁵ Communication from the Commission — Guidance on the Commission's enforcement priorities in applying Article 82 of the EC Treaty to abusive exclusionary conduct by dominant undertakings, OJ [2009] OJ C 45/02, para 51.

¹⁶ Clayton Act, 15 U.S.C.

¹⁷ S Frattaroli , 'Dodging the bullit again: Microsoft III's reformulation of the foremost technological tying doctrine' (2010) vol 90 (4) August Boston University Law Review, p 4.

positive and negative aspects. The anti-competitive effects of technical tying will be considered in accordance to the aim of Article 102 of the Treaty of the Functioning of the European Union (TFEU). The different steps of assessing the anti-competitive behavior will be highlighted with support of relevant case law. The close link between dominance and abuse will be discussed through the leveraging theory that will serve as a basis for the analysis.

The third chapter will present a legal background of the EU legal framework for the patent protection and the risk of evergreening through different combination of patents. The unity criteria of inventions will play an important role when discussing the different alternatives of patent applications for cumulative inventions or follow-on applications of patents. It will highlight the negative aspects of such complex technological systems, where strategic attempts by undertakings may make it possible to extend such protection, which in turn may lead to an evergreening stage leading to anti-competitive effect for the market.

The fourth chapter will provide an explanatory guidance to the US legal order concerning the most important aspects of chapter two and three. It will provide the US definition of technical tying and the Supreme Court's antitrust assessment of the cases, the US leverage concern, the patent protection, and finally the US patent misuse doctrine.

The analysis of chapter five will provide a weighted and balanced discussion, based on chapters two and three, considering the possible complexity within the technological structures, which can, when tying practice is involved, lead to an anti-competitive behavior. The US chapter will then be taken into account to regard the differences and similarities between the two legal systems, which will further lead to a discussion on potential improvement of the EU and CJEU's assessment of technological tying and complex patent systems combined.

The conclusion will be given in the final chapter six.

1.6 Interaction of Technical Tying and Patents

Patents and technical tying are two different legal areas. Interesting is to investigate when these two legal areas are combined in an abusive way and to what extent the combination would eliminate the competition within the EU internal market. It is particularly interesting since the technology industry is a fast evolving industry with difficult technical features, which make it possible for dominant undertakings to rely on either surrounding patents or technical solutions provided with technical tying. The more strategically, technically tied products the easier the ways of relying on surrounding, or even overlapping patent protection, which poses the question of the title: *The winner takes it all?*

Within an evolving industry, where technical tying arrangements promote efficiency, and different patent combinations, encourage innovation, undertakings may provide a web of hindrance for the entry of competitors. The definition of the separate products may rapidly change, which provides a possibility for an undertaking to tie separate product, and make it more difficult for competitors to

enter. An example could be a complex system where one unpatented product tied together with a patented product would be able to increase the position of the undertaking of the unpatented product leveraging the market power.

Furthermore, incremental innovations, with follow-on applications to former inventions, would make it possible for the undertaking to keep its position for a longer period of time. The winner who can *take it all* would thereby signify a dominant undertaking, controlling the market and its competition, which, in turn would result in an internal market where dominant undertakings would be able to determine the market conditions and prices or control production or distribution.¹⁸

It further leads to questioning the bridge between the interaction between patent law and competition law. Should the separate product assessment within competition law still be applicable for these kinds of combinations in the complexity of the technology industry? And can the US way of dealing with such issues give certain guidance to the EU system?

¹⁸ Case C 27/76 *United Brands Company and United Brands Continentaal B V v. Commission of the European Communities* [1978] ECR 207 p 217.

2 Technical Tying and Anti-competitive Effects

The intention of technical tying is to create a single product out of different technical integrations of products. Because of the growing technology industry technical tying is also increasingly involved.¹⁹ Technical tying may have different effect upon the market. Since a technical tying arrangement offers new ad-on features, it may contribute to new products on the market. Even if it may be considered anti-competitive in certain circumstances, such combinations of two products may also be beneficial for the consumers, creating efficiency on the market.²⁰

EU Competition law is intended to help preserve competition. An undertaking with a dominant position on the market is entitled to compete, however, with the responsibility not to hinder effective competition on the market by making it too difficult for its competitors.²¹ The legal monopoly, which occurs from a granted patent protection, has earlier been seen to coincide with the market power. An improvement has been done, and now more attention is given to the assessment of the market power associated with the Intellectual Property Rights (IPRs). Although the protection has increased, IP owners have developed new and more aggressive commercial strategies to exploit their IPRs.²²

2.1 Technical Tying as a Contribution to the Market

Tying refers to situations, where the customers that purchase the main product, *the tying product* are required to purchase also another product, *the tied product*, which is attached to the main product.²³ Technical tying refers to the technical design of the product, containing different components, which are tied together to one single product.²⁴ In this regard, it is impossible to purchase the tied product without the tying product since the two products are technically integrated.²⁵ Such integration may provide that the product only works properly with the tied product and not with alternative products from other competitors.²⁶ An illustrative example would be the computer game consoles, where the game only operates with a specific

¹⁹ D W Hull, 'Tying: a transatlantic perspective' in Philip Marsden (ed) *Handbook of Research in Trans-Atlantic Antitrust* (Edward Elgar publishing limited 2006) p 287.

²⁰ H K S Schmidt (n 3) p 187.

²¹ Behavior in Competition - A Guide to Competition, F. Hoffmann-La Roche Ltd, February 2010, p 13, www.roche.com/behaviour_in_competition.pdf, accessed 7 April 2013.

²² S Anderman, 'The IP and competition interface: new development' in Steven Anderman and Ariel Ezrachi (eds) *Intellectual property and competition law: new frontiers* (Oxford University Press, 2011) p 5.

²³ Guidance on the Commission's enforcement [2009] OJ C 45/02 (n 15), para 48.

²⁴ Ibid para 48, footnote 2.

²⁵ R Which and D Bailey (n 7) p 690.

²⁶ Guidance on the Commission's enforcement [2009] OJ C 45/02 (n 15) para 48 footnot 2.

console. It may be used to promote efficiency to the consumer, since it leads to higher sales of consoles and therefore lower prices overall. But it may also, in certain circumstances, provide a foreclosure effect on the market, where an undertaking due to its market power would be able to raise barriers to market entry for its competitors.²⁷

Even though Article 102(2)(d) TFEU²⁸ does not explicitly mention tying, it is regarded as the legal basis under which tying practices may be caught for abusive conduct.²⁹ In case *Tetra Pak v. Commission*, the commission found that Tetra Pak abused its dominant position in the markets for aseptic machines and cartons intended for packaging liquid food in EU. The case established that unlawful tying with products connected by commercial usage could still fall under article 102 TFEU.³⁰

2.1.1 Technical Tying Enhancing Efficiency

Dominant undertakings engaged in technical tying could, in certain situations, be regarded to enhance efficiency on the market.³¹ The different components, which are combined or integrated to one product, may result in an economic efficiency, lower production and distribution costs, but also quality improvements. It would moreover be beneficial for the consumers with the lower process and better quality as a result of effective competition.³² But also cost saving in production or distribution, which in turn would benefit consumers.³³

Combining of products may create efficiency on the market.³⁴ Tying may in this regard reduce transaction costs for customers since the product does not need to be bought separately and ensemble by the consumer. When buying shoes for example a consumer would not want to buy the shoes and the shoelaces separately.³⁵ Since consumer protection is an important aspect, and may cause the liability of an undertaking the consumer protection also lies within the responsibility of an undertaking. However the responsibility is only to a certain extent since undertakings cannot be responsible for something that can be created in other ways for example consumer health.³⁶ If not, the responsibility would lead to letting undertakings decide which competitors to eliminate from the market because of their dangerous or inferior products.³⁷

²⁷ R Which and D Bailey (n 7) p 690.

²⁸ Consolidated version of the Treaty on the Functioning of the European Union, C 115/47 Article 102(d) '... making the conclusion of contracts subject to acceptance by the other parties of supplementary obligations which, by their nature or according to commercial usage, have no connection with the subject of such contracts'.

²⁹ R Which and D Bailey (n 7) p 691.

³⁰ Case C-333/94P *Tetra Pak International SA v. Commission* (TetraPak II) [1996] ECR I-5951, [1997] 4 CMLR 662, para 37.

³¹ R Which and D Bailey (n 7) p 692.

³² Guidance on the Commission's enforcement [2009] OJ C 45/02 (n 15) para 20.

³³ Ibid para 6.

³⁴ Ibid.

³⁵ R Which and D Bailey (n 7) p 692.

³⁶ Case T-83/91 *Tetra Pak International SA v. Commission* (Tetra Pak I) [1994] ECR II-755, paras 83 and 84.

³⁷ Case T-30/89 *Hilti v. Commission* [1991] ECR II-1439, para 118.

Even though technical tying may contribute to efficiency on the internal market,³⁸ technical tying as non-pricing practices may nevertheless have anti-competitive effect in accordance to Article 102 TFEU.^{39,40} Such anti-competitive behavior occurs when a dominant undertaking engaged in tying, abuses its market power to foreclose the competition from the market.⁴¹

2.2 Anti-competitive Effects of Technical Tying

The anti-competitive effect for technical tying has to be considered from the aim of competition law, which is to protect the interest of the competitors or of the consumers but at the same time protect the structure of the market, which in turn adds up in a protection of the competition as such.⁴² It can further be regarded as a general aim for both Article 101 TFEU⁴³ and Article 102 TFEU.⁴⁴

Tying increases the risk that the market suffers from less competition. It may also lead to higher prices for the costumers if there are not sufficient customers, who will buy the tied product alone.⁴⁵ If the undertaking is dominant in the tying market and forecloses the markets from similar products, such conduct may harm the consumer,⁴⁶ reduce the availability of products on the tied market and make entry to the tying market more difficult.⁴⁷

No explicit guidance is given to the responsibility of dominant undertaking since it is to be considered in the light of ‘the specific circumstances of each case, which shows a weakened competitive situation’.⁴⁸ However there are four criteria assessed by the CJEU, necessary to fulfill, for a conduct to amount to abuse in accordance to Article 102 TFEU:⁴⁹

1. the tying and the tied products have to be regarded as two separate product,
2. the consumers must be coerced into buying the tied product,
3. the undertaking concerned has to be dominant in the market for the tying product, and
4. the practice has to provide a foreclosure of competition.⁵⁰

³⁸ See the above Section 2.1.1 on p 11.

³⁹ Treaty on the Functioning of the European Union (n 28).

⁴⁰ R Which and D Bailey (n 7) p 681.

⁴¹ Ibid p 690.

⁴² C-501/06 P *GlaxoSmithKline Services and Others v. Commission and Others*, Joined Cases C-501/06 P, C-513/06 P, C-515/06 P and C-519/06 P, para 63, [2009] [I-09291].

⁴³ Treaty on the Functioning of the European Union (n 28).

⁴⁴ T Käseberg, ‘Intellectual property, Antitrust and Cumulative innovation in the EU and the US’ (2012) vol 1 in the series Hart Studies in Competition Law, Oxford and Portland Oregon, p 37.

⁴⁵ Guidance on the Commission’s enforcement [2009] OJ C 45/02 (n 15) para 55.

⁴⁶ Ibid para 49.

⁴⁷ Ibid para 58.

⁴⁸ Case C-333/94 P *Tetra Pak v. Commission* (n 30) para 24.

⁴⁹ Case T-201/04 *Microsoft Corp v. Commission* (n 2) para 869.

⁵⁰ Ibid para 842.

Leveraging which is not a criteria assessed by the CJEU, it is rather a strategic practice where tying may be used by an undertaking to leverage its position from one market to another and will be discussed as an anti-competitive effect in this chapter.

2.2.1 Separate Products

In order to be considered an abuse, the tying practice has to consist of two separate products and such practice has to lead to an anticompetitive foreclosure.⁵¹ Separate products are considered when the different products can be purchased individually, however such determination is not always easy,⁵² especially not when the definition and perceptions are constantly changing.⁵³ Products that appear to be separate products one day may the next day be regarded as forming one single product.⁵⁴

In order to have a possible technical tying practice and not fall under 102(d) TFEU⁵⁵ the different components in the product has to be connected by a natural link. When such technical integration exists, the product could consist of different products as long as the natural link and a commercial usage exist.^{56,57} The integration must include 'nature or according to commercial usage'.⁵⁸ However, this rule cannot be considered absolute since it may be objectively justified.⁵⁹ In such circumstances, the integration has to offer *something more*,⁶⁰ something which creates technical efficiencies, which leads to a superior technical product performance.⁶¹

When making this assessment the attention is directed towards the market definition, which has been narrowed by the CJEU leading to a lower threshold to constitute an illegal tie.⁶² The stand-alone production plays also an important feature when discussing the distinctive product, where a production for both the tied product and the tying product has to exist.⁶³ In the *Hilti case*, Hilti argued for having one market, where the Commission found three markets, the nail gun, side nails and cartridge strips on the grounds that the products were produced with different technologies and often by different undertakings.⁶⁴

⁵¹ Guidance on the Commission's enforcement [2009] OJ C 45/02 (n 15) para 50.

⁵² R Which and D Bailey (n 7) p 692.

⁵³ Ibid p 692.

⁵⁴ Case T-201/04 *Microsoft Corp v. Commission* (n 2) para 913.

⁵⁵ Treaty on the Functioning of the European Union (n 28).

⁵⁶ Case T-201/04 *Microsoft Corp v. Commission* (n 2), para 942.

⁵⁷ C-333/94 P *Tetra Pak v. Commission* (n 30) para 37.

⁵⁸ Ibid para 37.

⁵⁹ Ibid.

⁶⁰ H K S Schmidt (n 3) p 206.

⁶¹ Case T-201/04 *Microsoft Corp v. Commission* (n 2) para 1159.

⁶² H K S Schmidt (n 3) p 190.

⁶³ Guidance on the Commission's enforcement [2009] OJ C 45/02 (n 15) para 51.

⁶⁴ Commission decision *Eurofix-Bauco v. Hilti*, IV/30.787 and 31.488, 22 December 1987, para 55.

2.2.2 Consumers Coerced into Buying

Furthermore Article 102(2) TFEU suggests that consumers have to be coerced into acquire the tied product for it to amount to an abuse of tying arrangement.⁶⁵

In case, a technical integration restricts the consumers' choice, it may be regarded as anti-competitive,⁶⁶ in the sense where the consumer, in absence of tying, would rather purchase the tying product without also buying the tied product from the same supplier.⁶⁷ In this regard, if the products are considered distinctive, the consumers would be regarded to lose their freedom to combine products from different undertakings, who in turn would prevent competitors to sell competing product.⁶⁸ In the *Hilti* case, where the nailcartridges and the nailgun were considered distinct products,⁶⁹ the consumer, who would not purchase a nailgun without compatible nails, would still want to have the option to buy the nail cartridges separately.⁷⁰ The same was considered in the case *Microsoft v. Commission*, where the consumers would wish to obtain the Windows Media Player (WMP), separately, which was included into the PC operating system from a different source.⁷¹ The *Microsoft* case concerned two abuses of Article 102 TFEU: the refusal to supply information to competitors and the tying of Windows media player to its operating software.

It must also be assessed whether the consumers were restricted from purchasing the tied product separately from the tying practice. The patented cartridge stripes was conditional upon the complement nails constituted an abuse of dominant position, since it left the consumers with no choice over the source of nails, which led to excluding independent nail makers from the market.⁷² A similar argument was concluded in the case *Tetra Pak v. Commission*, where the tied sale of filling machines and cartons could not be regarded to be in accordance with commercial usage, since it deprives consumers of choice. Furthermore, usage, in a normal situation considered acceptable, cannot be accepted when the competition on the market is already restricted.⁷³

2.2.3 Dominance

Article 102 TFEU is applicable to a dominant undertaking's unilateral behavior that infringes the fair competition on the market.⁷⁴ The provision is directed towards actions by undertakings, which may cause direct damage to the consumers but also may be detrimental to them through the impact of the effective competition structure. Abuse of such a position would therefore occur if a dominant undertaking stretches its dominant position so that

⁶⁵ R Which and D Bailey (n 7) p 694.

⁶⁶ H K S Schmidt (n 3) p 207.

⁶⁷ Guidance on the Commission's enforcement [2009] OJ C 45/02 (n 15) para 51.

⁶⁸ Case T-30/89 *Hilti v. Commission* (n 37) para 68.

⁶⁹ *Ibid* para 67.

⁷⁰ Case T-201/04 *Microsoft Corp v. Commission* (n 2) para 920.

⁷¹ *Ibid* para 922.

⁷² EU Microsoft Commission decision comp /C-3/39.530[2009] OJ C242/20, para 75.

⁷³ Case T-83/91 *Tetra Pak v. Commission* (n 36) para 137.

⁷⁴ R Which and D Bailey (n 7) p 683.

‘...the degree of dominance reached substantially fetters competition i.e. that only undertakings remain in the market whose behavior depends on the dominant one.’⁷⁵

Dominance has been defined under the Community law as a position of economic strength enjoyed by an undertaking, which gives the undertaking the power to behave independently of its competitors, and ultimately of consumers.⁷⁶ The higher the market share and the longer the period of time, the more likely a dominant position.⁷⁷

For the Commission to take action under Article 102 TFEU the undertaking has to be dominant in the tying market, but it is not necessary to have a dominant position in the tied market.⁷⁸

In the *Tetra Pak II* case, the CJEU concluded that dominance in the tying market could affect the tied neighbor market because of the *associative links* between the two markets. It further means that existing customers in one market would most likely be customers in the other market.⁷⁹

Dominant undertakings have to be careful not to exclude competitors on other merits than on fair competition with products or services,⁸⁰ to avoid that the market share plays the role to determine the prices or to control the production or distribution.⁸¹ And they have a *special responsibility* not to allow their conduct to impair genuine undistorted competition on the common market.⁸² In the *Microsoft* case the attempt to tie the web browser Internet Explorer to its dominant operating system Windows, ‘infringed the EC Treaty rules on abuse of a dominant position’ and ‘distort[ed] competition on the merits between competing web browsers.’⁸³

2.2.4 Foreclosure of Competitors

The definition of anti-competitive foreclosure indicates situations, where the dominant undertaking is likely to be in a position to increase prices profitably as a result of its conduct and could therefore hamper or eliminate effective access of actual or potential competitors to the market.⁸⁴

According to the Commission, if the dominant undertaking has had a strategically long-lasting technical tying, it would indicate a significantly higher risk of foreclosure of the market. In this regard it is specifically important to mention that

⁷⁵ Case 6/72 *Europemballage and Continental Can v. Commission* [1973] ECR 215, para 26.

⁷⁶ Guidance on the Commission's enforcement [2009] OJ C 45/02 (n 15) para 20.

⁷⁷ *Ibid* para 15.

⁷⁸ *Ibid* para 50, footnote 3.

⁷⁹ C-333/94 P *Tetra Pak v. Commission* (n 30) para 29.

⁸⁰ Guidance on the Commission's enforcement [2009] OJ C 45/02 (n 15) para 20.

⁸¹ Case *United Brands* C-27/76 (n 17) p 217.

⁸² Case 322/81 *Michelin v. Commission* [1983] ECR 3461, para 57.

⁸³ European Commission, Press Release, Antitrust: Commission Confirms Sending a Statement of Objections to Microsoft on the Tying of Internet Explorer to Windows (Jan. 17, 2009) <http://europa.eu/rapid/pressReleasesAction.do?reference=MEMO/09/15>, accessed 15 April, 2013.

⁸⁴ Guidance on the Commission's enforcement [2009] OJ C 45/02 (n 15) para 19.

technical tying may reduce the opportunity of resale of individual components and would be too costly to reverse.⁸⁵

Tying may also have a potential effect to foreclose competition, in the sense that an effective competition structure is put at risk, since, for example, the tying of WMP reduced the consumers' choice, which provides that potential media encoding and management software but also client PC operating systems would create a serious risk of foreclosure for competitors.⁸⁶

Normally, the Commission will take action in situations, where a dominant undertaking has tied products that are distinctive, and when the tying practice is likely to lead to an anti-competitive foreclosure.⁸⁷ In this regard, an undertaking is protecting its position in the tying market, which leads to a foreclosure of the market.⁸⁸ In turn it provides an abusive behavior since the dominant undertaking reserves such ancillary activity to itself in order to eliminate all competition without objective justification.⁸⁹ It is possible for the competitors to provide direct evidence of the market performance of the dominant undertaking for a foreclosure conduct if the conduct has been in place for a sufficient period of time. Further evidence may be shown from differences in market share, marginalized or exited competitors, and potential competitors hindered to enter.⁹⁰

In this regard the foreclosure conduct is rather enforced to protect an undertaking from competitors. However it is based on consumers with the assumption that it would lead to a long-lasting harm to consumers, predicated upon finding of dominance.⁹¹ In the *Microsoft* case the General Court agreed with the Commission's findings, that the tie led to a foreclosure of the market because of that the pre-installation of the media player would alter the balance of competitors in favor of Microsoft.⁹² Such marginalization of competitors would lead to that competitors to a dominant undertaking find it harder to make sales, and the ability to compete for future sales is permanently reduced.⁹³

2.2.5 Leveraging

Undertakings use tying to strengthen the position in the tied product market. When a firm tries to strengthen its dominance to gain a position in another market it is called *leveraging*. It is considered abusive under Article 102 TFEU because dominant undertakings then exploit their positions to foreclose the market for competitors.⁹⁴

⁸⁵ Guidance on the Commission's enforcement [2009] OJ C 45/02 (n 15) para 53.

⁸⁶ COMP/C-3/37.792 *Microsoft* [2005] 4 CMLR 965 (EU *Microsoft I* commission decision) para 842.

⁸⁷ Guidance on the Commission's enforcement [2009] OJ C 45/02 (n 15) para 50.

⁸⁸ *Ibid* para 52.

⁸⁹ Case 311/84 *Centre Belge d'Etudes de Marche Telemarketing v. CLT* [1985] ECR 3261, para 27.

⁹⁰ Guidance on the Commission's enforcement [2009] OJ C 45/02 (n 15) para 20.

⁹¹ *S Bishop and P Marsden* (n 5) p 4.

⁹² Case T-201/04 *Microsoft Corp v. Commission* (n 2) para 1034.

⁹³ *S Bishop and P Marsden* (n 5) p 3.

⁹⁴ *R Which and D Bailey* (n 7) p 689.

As earlier pointed out,⁹⁵ there is a close link between dominance and abuse where the abuse of such position is prohibited. When markets are so closely linked together an anti-competitive behavior in one market could affect the other market. It provides the risk that an undertaking might successfully be able to leverage its market power from one market to the other.⁹⁶ A dominant position in one market does not imply that such undertaking should be able to leverage its position into a different market for the purpose of profiting.⁹⁷

Closely linked markets are in principle not possible to define since it requires a case-by-case assessment. Such assessment is based on the supply and demand structure on the market, characteristics of the products concerned. The way a dominant undertaking makes use of its power on the dominated market in order to penetrate the linked market has to be considered, as well as the market share of the dominant undertaking on the non-dominated market and the degree of control the dominant undertaking may have on the dominated market. In this regard Article 102 TFEU should, according to Advocate General (AG) Colomer, be implied in a strict sense.⁹⁸

The *Microsoft* case is an example of leveraging where Microsoft used its dominant position in the PC operating system market to influence the work group server operating systems market.⁹⁹ The leveraging behavior had a significant impact both on the markets for work group server operating systems and for streaming media players,¹⁰⁰ which in turn created the risk that competition could be eliminated on that market.¹⁰¹

2.3 Chapter Conclusion

As the primary aim within competition law is to protect the interest of the competitors or of the consumers but at the same time to protect the structure of the market, the undertaking has a responsibility not to hinder effective competition. The technology industry is growing and technical tying is increasingly involved for single products made of different technical components. On the one hand, technical tying may enhance efficiency, reduce transaction costs and create saving in production and distribution, if there is a natural and commercial link between the different components leading to a superior performance. On the other hand, if dominant undertaking tie products that are distinctive, it is likely to lead to an abuse falling under Article 102(d) TFEU.

For a conduct to be considered anti-competitive the tying has to consist of two separate products, which are difficult to distinguish in an evolving industry. There has to be lack of a natural link between the products. The products within the tie can further not be considered to be in accordance with commercial usage. The

⁹⁵ See the above Section 2.2.1 on p 13.

⁹⁶ J Langer, *Tying and Bundling as a Leveraging Concern under EC Competition Law* (vol 30, International Competition Law Series, Wolters Kluwer, 2007) p 50.

⁹⁷ R Which and D Bailey (n 7) p 689.

⁹⁸ C-333/94 P *Tetra Pak v. Commission* (n 30) para 57.

⁹⁹ Case T-201/04 *Microsoft Corp v. Commission* (n 2) para 559.

¹⁰⁰ Case T-201/04 *Microsoft Corp v. Commission* (n 2) para 1290.

¹⁰¹ *Ibid* para 1291.

consumers have to be coerced into buying the tied product, and distained by their choice. Besides it is only necessary that the undertaking have market power leading to a dominant position in the tied market. This dominant position has to be used in order for the undertaking to reserve the ancillary activity to it and thus foreclose actual or potential competitors on the market. Another way of abusing a dominant position is through leveraging its dominant strength from one product market into another, which may most likely occur when the markets are closely linked. A strategically long-lasting tying runs a higher risk of foreclosure for competitors on the market, leading to eliminate all competitors on the market.

3 Patent Protection and Evergreening

The basic idea of a patent system is that the patent should not last forever but should function as a protection for the invention. Patent protection can be regarded as a reward for creative effort and a guarantee for the patentee to benefit from the exclusive right to use its invention of industrial manufactured products in circulation.¹⁰² On one hand the monopoly the patentee receives, in return for public disclosure of the invention, helps to promote efficiency on the market. The key purpose of patents is to support the creation and dissemination of products with new technology, by giving the patent holder a monopoly over the innovation over a certain period of time.¹⁰³

On the other hand, which will be discussed in the second part of this chapter, a patent, legally acquired but improperly used through different patent combinations, may lead to evergreening. This is reached through patent strategies of complex technology, cumulative or follow-on inventions. The complex technological integrated structures makes the strategies difficult to detect which in turn may lead to negative effects for the competition on the market,¹⁰⁴ which may harm interests of investors, researchers, and competitors.¹⁰⁵ There must therefore be a balance between the possibility to rely on surrounding patent and exclude competitors on the market.¹⁰⁶

3.1 Requirements for Technically Interlinked Patents

Patents are an indication of encouraged investments on the market, a better research, and incentive for innovation, better competition, economic growth and consumer benefits.¹⁰⁷ This is because the protection provides an exclusive protection and grants a limited monopoly in return for the disclosure of technical information.¹⁰⁸

¹⁰² Case C-15/74 *Centrafarm BV and Others v. Sterling Drug*, 1 October 1974 [1974] E.C.R. 1147 [1974] 2 C.M.L.R. 480, para 9.

¹⁰³ J Morsch and M A Finnigan, Supreme Court Clarifies That A Patent Does Not Automatically Confer An Antitrust Monopoly, Corporate Counsel, July 2006, p A6.

¹⁰⁴ K Roox, P Pike, A Brown, B Becker, and G Thaler, 'Patent-related barriers to market entry for generic medicines in the European Union: A review of weaknesses in the current European patent system and their impact on market access of generic medicines' (2008) *Journal of Generic Medicines*, 5 (4) p 257.

¹⁰⁵ H Macqueen, C Waelde, G Laurie, and A Brown, *Contemporary intellectual property – law and policy* (2nd edn, Oxford University Press 2011) p 377.

¹⁰⁶ Hoffmann-La Roche (n 21) p 18.

¹⁰⁷ D Xenos, 'Limiting the IPRs of pharmaceutical companies through EU competition law: the first crack in the wall', (2011) 8:1 SCRIPTed, p 93.

¹⁰⁸ L Bently and B Sherman, *Intellectual property law* (3rd edn, Oxford University Press 2009) p 335

‘European patents shall be granted for any inventions, in all fields of technology, provided that they are new, involve an inventive step and are susceptible of industrial application.’¹⁰⁹

The invention has to be compared to the state of art, which refers to

‘...everything made available to the public by means of a written or oral description, by use, or in any other way, before the date of filing of the European patent application.’¹¹⁰

The invention can further not be regarded as obvious to a person skilled in the art.¹¹¹ Products that are technically interrelated have essential structural elements together. The term *interrelated* refers to different objects that complement each other or different objects that work together. An invention has to be considered novel of inventive nature and if it consists of a group of separately and closely linked inventions they have to form one single general concept.¹¹²

3.1.1 EU Patent System Towards Centralization

The patent system in EU is built upon a patch-work of patent registrations in different patent jurisdictions, which makes the protection for innovation vary from one Member state to another.¹¹³ The EU patent system is founded on an international convention, the EPC, but is not an act of community legislation.¹¹⁴

The patents from the Member countries within EU are granted by a centralized application,¹¹⁵ which under the EPC is regarded to have a unitary effect.¹¹⁶ Such protection cannot be regarded as absolute since it may be curtailed in unjustified interference with free standing trading practice.¹¹⁷ CJEU has repeatedly confirmed their competence of taking action if it contributes to the attainment of the objectives of the treaties.¹¹⁸ An effective litigation system would therefore be essential for the stimulation of growth, innovation and competitiveness,¹¹⁹ to hinder potential forum shopping from the difference of established or non-established patent courts.¹²⁰

¹⁰⁹ European Patent Convention, Part II Substantive Patent Law, Chapter I Patentability, Patentable inventions Article 52 Patentable inventions.

¹¹⁰ Guidelines for Examination in the European Patent Office, June 2012, p 663, Part G, Chapter IV-1 State of Art
[http://documents.epo.org/projects/babylon/eponet.nsf/0/6c9c0ec38c2d48dfc1257a21004930f4/\\$FILE/guidelines_for_examination_2012_en.pdf](http://documents.epo.org/projects/babylon/eponet.nsf/0/6c9c0ec38c2d48dfc1257a21004930f4/$FILE/guidelines_for_examination_2012_en.pdf), accessed 10 July 2013.

¹¹¹ European Patent Convention, Part II Substantive Patent Law, Chapter I Patentability Article 56 Inventive step.

¹¹² The European Patent Convention (EPC) Publication of the 14th edition, Article 82 EPC.

¹¹³ G Tritton et al (n 13) pp 3-4.

¹¹⁴ A Kur and T Dreier, European Intellectual Property law, Text, Cases and Materials (Edward Elgar Pub. 2013) p 65.

¹¹⁵ G Tritton et al (n 13) p 61.

¹¹⁶ A Kur and T Dreier (n 114) p 66.

¹¹⁷ H Macqueen et al (n 105) p 23.

¹¹⁸ Case C-350/92 *Spain v. Council*, para 27, [1995] ECR I-1985, para 59 of its Opinion 1/94 of 15 November 1994 [1994] ECR I-5267.

¹¹⁹ K Rook et al (n 104) p 268.

¹²⁰ Communication from the Commission to the European Parliament and the Council Brussels, ‘Enhancing the patent system in Europe’, COM (2007) 165 final, p 6.

As stated in the TFEU and within the context of the establishment and functioning of the internal market the European Parliament and the Council shall establish measures for uniform protection, coordination and supervision arrangement for IPRs through the Union.¹²¹ The EU protection of the internal market and the aim of a smooth operation, provides for a careful balance so that IPRs do not conflict with EU law, or alter the scope of rights that it entails.¹²² However, since Article 345 TFEU¹²³ reserves IPR and its enforcement to remain a matter of national law and national courts, many attempts to harmonize the systems have been made.^{124,125}

While the establishment of a unified patent court had been discussed earlier¹²⁶ the agreement was not signed until February 2013.¹²⁷ All the Member states had ratified EPC and agreed to provide for a single procedure to improve the enforcement of patents, as well as the defense against unfounded claims and patents, and to enhance legal certainty. The aim is to contribute to an integration process in Europe and to ensure that competition on the internal market will not be distorted.¹²⁸ However the European Patent court shall follow the normal procedure for a preliminary ruling and is then obliged to refer questions of interpretation and question of validity of EU law,¹²⁹ and CJEU will avoid deciding substantive matters of patentability and infringement related to EU law.¹³⁰

3.1.2 Separate or New Features Leading to Unity

Cumulative invention is a term relating to inventions that consist of interrelated products. Such a technical relation may be protected through patents. The patents may cover the products separately but may also relate to the attachment or interconnection of two products.¹³¹ In this regard, the cumulative invention relies on previous inventions.¹³² However, if the product has a technical feature that relates to the general inventive concept, it must be stated in an independent

¹²¹ Treaty on the Functioning of the European Union (n 28).

¹²² H Macqueen et al (n 105) p 23.

¹²³ Consolidated Version of the Treaty on European Union [2010] OJ C 83/194.

¹²⁴ Directive 2004/48/EC of the European Parliament and of the Council on the Enforcement of Intellectual Property Rights, 30.4.2004 OJ L 157/ 45, of 29 April 2004.

¹²⁵ Regulation (EU) No 1257/2012 of the European Parliament and of the Council, Implementing enhanced cooperation in the area of the creation of unitary patent protection, 31.12.2012 OJ L 361/1, of 17 December 2012, recital 27.

¹²⁶ K Roon et al (n 104) pp 267-68.

¹²⁷ Council of the European Union, 6590/13 'Signing of the Unified Patent Court agreement', Pres/13/61 Brussels, 19 February 2013, http://europa.eu/rapid/press-release_PRES-13-61_en.htm, accessed 2 May 2013.

¹²⁸ Council of the European Union 16351/12, Pl 148 COUR 77 'Agreement on a Unified Patent Court', Brussels, 11 January 2013, pp 3-4.

¹²⁹ Council, Notices from European Union Institutions, Bodies, Offices and Agencies 'Agreement on a Unified Patent Court', 2013/C 175/01 article 38

¹³⁰ Latham & Watkins Litigation Department, EU Patent Reform: EU Member States Approve New European Unified Patent Court to Accompany New EU Unitary Patent, Client Alert, Number 1474, 25 February 2013.

¹³¹ S Wagner, 'Business Method Patents in Europe and their Strategic Use – Evidence from Franking Device Manufacturers' (2006) Munich School of Management, Discussion paper, November, p 7, <http://epub.ub.uni-muenchen.de/> accessed 19 April 2013.

¹³² Guidance on the Commission's enforcement [2009] OJ C 45/02 (n 15).

claim.¹³³ Each claim could consist of technically added features and if these features are constituted to make a contribution over the prior art as a whole, and additionally fulfilled the unity criteria the patent may be granted.¹³⁴ The relationship of these technically interlinked inventions shall be determined without regard taken to whether the claims are separate claims or alternative claims within a single claim.¹³⁵ There are many different possibilities of claims that refer back to one or more independent claims, or to dependent claims or even to both.¹³⁶

To fulfill the unity requirement there must be a relation to one invention if a group of inventions are linked together as a form and provide for a single general inventive concept.¹³⁷ An example hereto could be products with necessary connections for operation, like transmitters together with corresponding receivers, or plugs claimed with a corresponding socket. However, when dealing with cases that have combination claims such as A+B+C related to sub combinations like A+B, A+C, B+C or A, B, C in separate usage special attention is required by the examination office. In cases where the lack of unity of such invention can be detected, the patentability will be rejected.¹³⁸

The claim further has to be clearly, technically defined with at least one essential technical feature, which distinguishes it from the state of art. Even though considered essential, the features still have to be interrelated, either by usage of the product or the apparatus, or by alternative solutions, which cannot be made in a single claim.¹³⁹ The novelty requirement can therefore be said to be dependent on its technical construction, which in turn is linked to the unity requirement.¹⁴⁰ When amending an original patent, there is a necessity that it contains an inventive step.¹⁴¹

In the context of unity and novelty requirement, Markush-grouping prevails another possibility for patent applications. Markush-grouping refers to a group of alternatives of products of similar nature that can be substituted by one another and be regarded as a unity of invention. It differs, from the above mentioned, interrelated features, since the structural element in Markush grouping does not need to fulfill the novelty criteria *per se* but in relation to the common property or activity. Although deriving from chemical practice, Markush grouping is now used for all kinds of technologies. However, when dealing with such a claim, the examiners assess carefully whether the structural element is shared by all of the alternatives.¹⁴² A single alternative put together with other combination of different components may also be seen as a structural element.¹⁴³

¹³³ Guidelines European Patent Office (n 111) p 620, Part F - Chapter V-10, para 14.

¹³⁴ Implementing Regulations to the Convention on the Grant of European Patents, Part III Implementing Regulations to Part III of the Convention, Chapter II Provisions governing the application, Unity of invention, Rule 44.

¹³⁵ 11 p 611-612, Part F - Chapter V-1, para 2.

¹³⁶ Guidelines European Patent Office examination (n 111) p 586-587. Part F - Chapter IV-7, para 3.4.

¹³⁷ Guidance on the Commission's enforcement [2009] OJ C 45/02 (n 15).

¹³⁸ Guidelines European Patent Office examination (n 111) p 620, Part F - Chapter V-10, para 14.

¹³⁹ Guidelines European Patent Office examination (n 111) p 581, Part F - Chapter IV-1, para 2

¹⁴⁰ Case G 0002/88 (Friction reducing additive) of 11.12.1989, para 7.

¹⁴¹ Case T 0198/84 (Thiochloroformates) of 28.2.1985, p 7.

¹⁴² Guidelines European Patent Office examination (n 111) p 614, Part F - Chapter V-4 para 5.

¹⁴³ Ibid.

When regarding the unity criteria is not possible to take different features belonging to one or both of these entities and try to piece them together in an artificial way to create a more relevant state of the art, but the process must also be taken into account.¹⁴⁴ In this regard if the unity criteria was to interpreted too strictly, the of interconnection of component would not be possible, and the innovation would be curtailed.¹⁴⁵

3.2 Patent Strategies to Reach Evergreening

Even though the patent system supports the creation of new technology, in situations, where the unity requirement would be loosened and *an inventive step would be lowered*,¹⁴⁶ it would in turn mean that an extension of a patent protection, known as evergreening, would be reached.¹⁴⁷

Undertakings employ several kinds of strategies to find the most solid and robust breadth of protection for their products against competitors on the market.¹⁴⁸ It can be achieved through follow-on patents, built upon an earlier invention, overlapping claims,¹⁴⁹ or improvements in an attempt to reach an evergreening stage to keep competitors off the market.¹⁵⁰ Such practice may disrupt the balance in the patent system and hinder the competition on the market.¹⁵¹

As mentioned earlier, patent evergreening is mostly mentioned in the pharmaceutical industry, but appears also in other industries, where different types of technological patents are applied for.¹⁵² Patent evergreening indicates the intension to reach a long lasting protection through using tying in different combinations with patents covering various parts of the product under several consecutive periods.¹⁵³ In this regard it is possible to benefit from such exclusive right and restrict others to use the protection.¹⁵⁴

Evergreening may, in relation to the originator undertakings, be described as an aim to ‘develop strategy to extend the breadth and duration of their patent protection’.¹⁵⁵

¹⁴⁴ Case T 0305/87 (Shear) of 1.9.1989, para 5.3.

¹⁴⁵ Guidelines European Patent Office examination (n 111) p 227 Part B - Chapter VII-1.1 para 1.

¹⁴⁶ K Roox et al (n 104) p 260.

¹⁴⁷ Ibid.

¹⁴⁸ ‘Pharmaceutical Sector Inquiry – Preliminary Report’, Fact Sheet, ‘Originator-Generic competition’, pp 1-2, http://ec.europa.eu/competition/sectors/pharmaceuticals/inquiry/fact_sheet_2.pdf, accessed 7 May, 2013.

¹⁴⁹ S Torrisi, ‘Innovation, Strategy, and Structure – Cross-licensing, Organizations, Institutions, Systems and Regions’ (2011) Copenhagen Business School, Denmark, June 15-17, DRUID Conference, p 8, http://druid8.sit.aau.dk/acc_papers/attpke693lu0vnluu0c55gxkvh5b.pdf, accessed 1 May 2013.

¹⁵⁰ K Roox et al (n 104) p 260.

¹⁵¹ Ibid p 262.

¹⁵² J R Thomas (n 10) p 4.

¹⁵³ Ibid p 1.

¹⁵⁴ V Korah, ‘Intellectual Property Rights and the EC Competition Rules’, in Valentine Korah (ed) *Competition Law of the European Union* (2nd edn, Matthew Bender & Co., 2012) para 9.01(9-7)

¹⁵⁵ EU Pharmaceutical Sector Inquiry report final (n 14).

It effectively leads to extension of the exclusivity of a patent protection,¹⁵⁶ and is mostly used, where different technological patents for inventions or improvements are sought for.¹⁵⁷

3.2.1 Patent Combinations Leading to Evergreening

When undertakings choose to benefit from longer patent protection, patent strategies are usually employed in order to use the patent system for its own benefit.¹⁵⁸ Such attempts are made under the R&D stage in order to maximize the patent protection to gain a stronger market position.¹⁵⁹

Within the technology industry, to result in a new invention different combination of components is used.¹⁶⁰ The abuse of the patent system may take place in the form of follow-on-patents, or insignificant variations, that create new products on the market.¹⁶¹ Such increased patent protection may provide high concentration of technological space, which large and symmetric undertakings are likely to take advantage of by eliminating competitors.¹⁶²

The patent strategy of an undertaking may be illustrated as a toolbox, where the instruments may vary from company to company, and from product to product. However, the main function is to prevent entries of the generic products, and to protect the continuity of the revenue stream for the originator undertaking.¹⁶³

Follow-on-patents may be difficult to detect since they may be of complex structures, where the innovations are built around several, and/or previously complementary inventions.¹⁶⁴ The complexity is dependent on several separate elements, which are separately patented; often found within the technology industry.¹⁶⁵ There are different procedures with *minor variations* that the originator undertakings use in order to extend the time-period of a patent. Even though the variations are minor they can still be harmful to the market.¹⁶⁶ Such variations can be seen as: '... a weapon that is mainly used by large companies that want to protect their monopolies...'¹⁶⁷

¹⁵⁶ J R Thomas (n 10) p 7.

¹⁵⁷ Ibid p 4.

¹⁵⁸ EU Pharmaceutical Sector Inquiry report final (n 14) para 467, p 183.

¹⁵⁹ S Wagner (n 131) p 6.

¹⁶⁰ S Torrisi (n 152) p 8.

¹⁶¹ S Parker and K Mooney, 'Is 'evergreening' a cause for concern? A legal perspective' (2007) *Journal of Commercial Biotechnology* (13) 4, August, p 236.

¹⁶² S Torrisi (n 152) p 9.

¹⁶³ EU Pharmaceutical Sector Inquiry report final (n 14) para 469, p 183.

¹⁶⁴ S Torrisi (n 152) p 7.

¹⁶⁵ Ibid p 8.

¹⁶⁶ S Parker and K Mooney (n 161) p 236.

¹⁶⁷ eWeek 2005-07-18, J Rapoza 'Europe Votes for Innovation, Not Patent Laws', <http://www.eweek.com/c/a/Enterprise-Applications/Europe-Votes-for-Innovation-Not-Patent-Laws/>, accessed 18 August 2013.

3.2.2 Evergreening Affecting the Competition

In certain circumstances, evergreening may contribute to an anti-competitive behavior,¹⁶⁸ where the patent is so broad in scope that the patent strategies lead to hinder competitors without pursuing innovative efforts.¹⁶⁹

There has to be a careful balance between patents, which encourages investment of imitating innovation, and dominant undertakings, which may increase their market power using the restriction on the IPR to hinder competitors to enter the market.¹⁷⁰ Competition law will only intervene in exceptional circumstances, when an invention has been granted a patent on an objective criterion.¹⁷¹ If the undertaking in question has a high market power, it may however enter under a dominant position.¹⁷² Evergreening only occurs when a patent holder employs different ways to abuse the legal patent system in an attempt to extend the life-cycle of a patent in order to maintain market dominance.¹⁷³ Strategies used by undertakings with alternative inventions or attached inventions may in certain situations lead to patent claims being interpreted to reach beyond the invention, which may obstruct the competition on the market and result in hindering the entry of competitors.¹⁷⁴ It could, further also be done by overlapping claims.¹⁷⁵

However, the attempt of originators to reach such evergreening stage may deter the innovation making it more difficult for generic undertakings to comply and research around the patents. Professor Sir Robin Jacob means that penalty or sanction ought to be introduced for companies holding invalid patent because it is too difficult to ‘chop the trees with a pen-knife’ and simply not efficient.¹⁷⁶

It is important to differentiate between the legitimate and anti-competitive use of the patent system. In other words ‘competition laws bite only on the exercise on the IPR and not on its creation.’¹⁷⁷

3.3 Chapter Conclusion

The technically integrated products, which involve an inventive step and fulfill the unity requirement, may be regarded to promote efficiency and innovation. An

¹⁶⁸ K Roos et al (n 104) p 266.

¹⁶⁹ S Priddis and S Constantine, ‘The pharmaceutical sector, Intellectual Property Rights and competition law in Europe’, in Steven Anderman and Ariel Ezrachi (eds) *Intellectual property and competition law: new frontiers* (Oxford University Press, 2011) p 256.

¹⁷⁰ V Korah (n 154) para 9.01(9-7).

¹⁷¹ S Priddis and S Constantine (n 169) p 262.

¹⁷² Case 85/76 *Hoffman-La.Roche v. Commission* [1979] ECR 461, para 42D and 48; case T-51/89 *Tetra pak, Rausing S.A v. Commission* [1990] ECR II-309, para 23.

¹⁷³ I S Bansal, D Sahu, G Bakshi, and S Singh, ‘Evergreening – A Controversial Issue in Pharma Milieu’, (2009) Vol 14, July, *Journal of Intellectual Property Rights*, p 299.

¹⁷⁴ H Ullrich, ‘Select from Within the System: The European Patent with Unitary Effect’ (2012) Research Paper no 12-11, Max Planck Institute for Intellectual Property and Competition Law, p 6.

¹⁷⁵ EU Pharmaceutical Sector Inquiry report final (n 14) para 479, p 186.

¹⁷⁶ The Rt. Hon. Professor Sir. Robin Jacob, ‘Patent thickets: a paper for the European Patent Office Economic and Scientific Advisory Board meeting’ (2013) *Journal of Intellectual Property Law & Practice* (8) 3, p 205.

¹⁷⁷ S Priddis and S Constantine (n 169) p 263.

invention of different products has to be so closely linked to provide a single general inventive concept, without regard taken to separate or alternative claims, within a single claim or sub-combinations. The novelty requirement is then dependent upon the technical construction, and the essential technical feature has to be distinguished from the state of art. The essential, technical feature has to be interrelated either by usage or by alternative solutions, however Markush grouping, where a new component is only required to fulfill the novelty criteria in relation to the common property or activity of the structure.

Within technical integration, complex structure makes it difficult to detect strategic use of patents. However, in case the unity criteria are to be applied too strictly, new interrelated technical solutions would not be possible, and too loosely applied would lead to evergreening, where follow-on patents would function as means to stretch the patentability criteria and hinder the competition on the market. An inventive step has to be regarded as an unexpected technical effect in order to be granted a patent. The different complex structure of follow-on patents or ancillary innovations, or product integration may lead to a minefield for competitors when trying to enter the market. The patent court will contribute to an integration process, improving the enforcement of patents and through the preliminary ruling procedure in order to ensure the competition on the internal market but at the same time to combat potential misuse in the patent system leading to a better balance.

4 The US Perspective

Patent and antitrust laws are interrelated in the common purpose of promoting innovation and enhancing consumer welfare.¹⁷⁸ The objective of IP law is considered to be ‘in the light of the presumed efficiency goal of antitrust law’.¹⁷⁹ It would be a too far-reaching conclusion to consider the antitrust law superior to IP law they are rather complementary to each other.¹⁸⁰ However, to reach the efficiency goal a balancing of IP and antitrust law has to be made

The incentives for innovation given by patent rights to the creators of new and useful products could easily be undermined, through strategic solutions, detrimental for the consumers. Anti-trust law prohibits actions that may harm consumers and the competition on the market, and upholds and promotes innovation and consumer welfare.¹⁸¹ In this regard the antitrust law only reduces the options for a patentee to use strategic ways to reach a stronger protection. This is important to highlight because, if the antitrust law only restricts the exercise of market power, the competitors are still left with a possibility to compete on the product market with strategic option to make product improvements of follow-on innovations.¹⁸²

4.1 Patents, Technical Tying and Anti-trust

The Sherman Act §2 establishes that any person who monopolizes, or attempts to monopolize any part of trade and commerce shall be deemed guilty of a felony.¹⁸³ The Sherman Act was designed to prevent free and unfettered competition, and rests on the ideology that the competition forces, which remain unstrained, will yield to allocation of resources, lowest price, highest quality, and to preserve democratic political and social institutions.¹⁸⁴ Furthermore, stemming from the Chicago school¹⁸⁵ the promotion of consumer welfare has become an overarching goal of US antitrust law.¹⁸⁶

The antitrust analysis of patents was established through the course of patent infringement allegations.¹⁸⁷ In the case *ILC Peripherals Leasing v. IBM* the integration of magnetic discs was not considered as an unlawful tying arrangement since the Court could not decide on product design decisions.¹⁸⁸ After this judgment the aim of US antitrust law was narrowed.

¹⁷⁸ Case *Games Corp. v. Nintendo of America, Inc.*, 897 F.2d 1572, 1576 (Fed. Cir. 1990) p 11.

¹⁷⁹ T Käseberg (n 44) p 45.

¹⁸⁰ Ibid p 45.

¹⁸¹ Antitrust Guidelines for the Licensing of Intellectual Property , Issued by the U.S. Department of Justice and the Federal Trade Commission, April 6, 1995.

¹⁸² T Käseberg (n 44).

¹⁸³ Sherman act, 15 USC § 2 - Monopolizing trade a felony; penalty.

¹⁸⁴ Case *Northern Pacific Railway Co v. United States*, 356 US 1 at 4 (1958).

¹⁸⁵ The Chicago school favored free market policies and little government intervention within a strict, government-defined monetary regime.

¹⁸⁶ T Käseberg (n 44) pp 34-35.

¹⁸⁷ J Langer (n 96) p 67.

¹⁸⁸ C Ahlborn, D S Evans, and A J Padilla, ‘The antitrust economics of tying: a farewell to per se illegality’ (2004) Spring/Summer (49) Antitrust Bulletin, pp 295-96.

4.1.1 Patents

Patent protection is considered to encourage competition between different undertakings and promote innovation on the market.¹⁸⁹ In this regard, patents should be considered private means to a public end.¹⁹⁰ The aim is in fact to hinder imitation of inventions and protect the investments but also to provide the possibility of a reward.¹⁹¹ The patent functions as a grant for the patentee that consists of a right to exclude other from making, using, or selling the invention throughout the US.¹⁹²

The Patent Act provides certain criteria: a patent has to be fully disclosed in the application,¹⁹³ the invention has to be considered novel,¹⁹⁴ and to be regarded non obvious to a skilled person in that art.¹⁹⁵ The patent could additionally consist of a process, a machine, or a composition of different matter, or even any new or useful improvement thereof.¹⁹⁶

To obtain a patent, regard has to be taken to the prior art.¹⁹⁷ While assessing the prior art, the invention as a whole cannot be considered obvious for any person with ordinary skills in that art. A patent application can moreover not be rejected on the grounds of how it was made,¹⁹⁸ or for unexpected results or commercial success.¹⁹⁹ Although it is possible to change its original proposal, since an invention could result in a different problem than the one, the application was anticipated for,²⁰⁰ innovators should be allowed to obtain patents on improvement of inventions.²⁰¹ It is important to note that even such improvements must follow the same criteria set out in the Patent Act.²⁰²

It is important that cumulative inventions create a unity consisting of separately, but closely linked single general concepts.²⁰³ Within follow-on inventions the novelty is dependent upon its technical construction, which in turn is linked to the unity requirement.²⁰⁴ The unity criteria has to be applied strictly, however, not too strictly since, that could mean that the interconnection of products would be impossible to

¹⁸⁹ J R Thomas (n 10) p 8.

¹⁹⁰ R J R Peritz, 'Competition within intellectual property regimes: the instance of patent rights', in Steven Anderman and Ariel Ezrachi (eds), *Intellectual property and competition law: new frontiers* (Oxford university press, 2011) p 30.

¹⁹¹ T Käseberg (n 44) p 48.

¹⁹² 35 U.S.C. § 54

¹⁹³ Ibid § 112.

¹⁹⁴ Ibid § 102.

¹⁹⁵ Ibid § 103.

¹⁹⁶ Ibid § 101.

¹⁹⁷ Ibid § 103.

¹⁹⁸ Ibid.

¹⁹⁹ Manual of Patent Examining Procedure (MPEP) Eighth Edition, August 2001, Latest Revision August 2012, Patentability Chapter 2100

²⁰⁰ US Patent and Trademark office '2131.05 Nonanalogous > or Disparaging Prior < Art [R-5]'.

²⁰¹ J R Thomas (n 10) p 1.

²⁰² Ibid p 7.

²⁰³ Guidelines European Patent Office examination (n 111) Article 82 EPC (section 3.1.2)

²⁰⁴ Case G 0002/88 (Friction reducing additive) of 11.12.1989, para 7(separate or new features leading to unity).

achieve,²⁰⁵ and in turn it could, as discussed in Section 3.2.1, lead to a fragmentation of protection where it would cost more to get access to new technology.²⁰⁶

An expired patent enters into the public domain leading to a public privilege to use and invites competitors to enter the same market.²⁰⁷ ‘... [A] patent is an exception to the general rule against monopolies and to the right to access to a free and open market’.²⁰⁸ However, attempts to use the patents improperly would have negative effect on the competition on the market, as mentioned above in Section 3.2.²⁰⁹ In this regard evergreening of a patentee may lead to foreclosure of competition,²¹⁰ but only from the misuse of a patent protection and by showing that the misuse conduct has been abandoned the misuse may be cured and the patentee may then have all the rights restored.²¹¹

4.1.2 Technical Tying and Antitrust Assessment

Technical tying, being discussed in this thesis, refers to a technical product designed in order to function in conjunction with complementary products. An example could be a company’s the product of a camera were the body only functions together with the same company’s technologically tied line of lenses.²¹² In the case *Jefferson Parrish*, it was concluded, that tying may not only constitute antitrust infringements, but may also be welfare enhancing.²¹³ The consumer welfare is increased by its product convenience and the following increased functionality.²¹⁴

The product integration may constitute a greater opportunity for better protection, which would generate higher consumer prices and increase barriers of entry for other undertakings.²¹⁵ However, such integration of products requires that the integration offers *something more*,²¹⁶ of technical value.²¹⁷

Products from separate product markets cannot be tied together,²¹⁸ because it could harm the competition on the market.²¹⁹ The US Court reasons that attention should

²⁰⁵ Guidelines European Patent Office examination (n 111) p 227, Part B - Chapter VII-1, para 1.

²⁰⁶ S Wagner (n 131) p 7.

²⁰⁷ R J R Peritz (n 190) p 50.

²⁰⁸ Case *Precision Instrument Manufacturing Co v. Automotive maintenance machine Co*, 324 US 806, at 816 (1945).

²⁰⁹ K Rook et al (n 104) p 257.

²¹⁰ J R Thomas (n 10) p 1.

²¹¹ R Raysman, E A Pisacreta, S H Ostrow, and K A Adler, *Intellectual Property Licensing: Forms and Analysis* (Release 26, Law Journal Press, 2011)

²¹² Daniel E. Gaynor, Technological Tying, Working Paper no. 284 (2006) Bureau of Economics Federal Trade Commission, p 1, <http://www.ftc.gov/be/workpapers/wp284.pdf>, accessed 16 July 2013.

²¹³ Case *Jefferson Parish Hospital Dist. No. 2 et al. v. Hyde*, 466 U.S. 2, 12 (1984) para 9.

²¹⁴ S Frattaroli (n 17) p 6.

²¹⁵ H T Au, ‘Anticompetitive tying and bundling arrangement in the smartphone industry’, (2012) vol16 no 1 Fall, *Stanford Technology Law Review* p 190.

²¹⁶ Case *United States v. Microsoft Corp*, 253 F 3d 34 (DC Cir 2001).

²¹⁷ Case *United States v. Microsoft Corp*, 147 F 3d 935 (DC Cir 1998US 949).

²¹⁸ Case *United States v. Microsoft Corp*, 253 F 3d 34 (D.C. Cir. 2001) at 128 (hereinafter *Microsoft III*).

²¹⁹ C Ahlborn et al (n 188) pp 14-15.

be taken to whether components are charged separately, or whether other actors in the industry sell products individually or combined. Such arrangement also requires the consumers to be coerced to buy the tied product. The product has furthermore to be of such nature that the buyer would have preferred to have purchased it elsewhere or not have wanted it at all. When that mechanism of force is present, the tied item is restrained and the Sherman Act is violated.²²⁰ To reduce the risk for positive compliance for undertakings, market power is the key for infringement.²²¹

However the technological tying provided a justification in the case *Jerrold Electronics*, where the Court accepted the selling of a tied integrated system, since it would help to assure the effective functioning.²²² Technological progress is the most important driver of economic growth,²²³ which was highlighted in the case *United States v. Microsoft Corp.* In the case *Jefferson Parish* it was considered 'The more dynamic the industry, the greater the expected error of the separate-product test under Jefferson Parish'.²²⁴ Consequently, it does not regard the relationship between the two products in the tying arrangement but the character of demand. It cannot exist a tying when consumers are able to comprehend the two products being separate markets.²²⁵ The case *International Salt Co., Inc. v. United States* and the case *International Business Machines Corp. v. United States* clearly concluded that coercing the consumers was an illegal attempt to gain market power.²²⁶

In order to infringe Sherman Act Section 2 the monopoly power in the relevant market must be distinguished from growth or development and cannot be dependent on a superior product.²²⁷ A patent containing exclusivity protection cannot confer such market power upon the patentee.²²⁸ It is not seen unlawful unless such business conduct is accompanied by anti-competitive elements, in order to protect the free-market system.²²⁹ However, monopolization or dangerous threat to monopolize the market is unlawful.²³⁰ Competition on the market and advantages acquired from the competition are therefore to be regarded as the underlying purpose of antitrust law.²³¹

²²⁰ Case *Jefferson Parish* (n 213) para 12.

²²¹ Case *Eastman Kodak Co. v. Image Technical Services, Inc. et al.*, 504 U.S. 451 (1992).

²²² Case *Jerrold Electronics Corp. et al. v. United States*, 365 U.S. 567 (1961).

²²³ T Käseberg (n 44) p 4.

²²⁴ Case *Jefferson Parish* (n 213) para 19.

²²⁵ *Ibid* para 19.

²²⁶ Case *International Salt Co., Inc. v. United States*, 332 U.S. 392, 395-96 (1947); and case *International Business Machines Corp. v. United States*, 298 U.S. 131 (1936) in C Ahlborn et al (n 188) p 293.

²²⁷ W J Lynk, Counsel for Jefferson Parish Hospital during the Supreme Court phase of this case, *Tying and Exclusive Dealing: Jefferson Parish Hospital v. Hyde* (1984) http://www.oup.com/us/pdf/kwoka/0195120159_14.pdf, p 356.

²²⁸ Case *Illinois Tool Works Inc. v. Independent Ink, Inc.* 547 U.S. 28, 126 S.Ct. 1281 U.S., 2006, pp 1285–1293.

²²⁹ The free market system indicates a system where monopoly prices may attract “business acumen” which in turn would induce risk taking, which would produce innovation and economic growth. (see Case *Illinois Tool Works Inc. v. Independent Ink, Inc.* 547 U.S. 28, 126 S.Ct. 1281 U.S., 2006 pp 1285–1293), see also *Verizon Communications Inc. v. Law Offices of Curtis v. Trinko, Llp* Opinion of the Court, Supreme Court of the United States, Second Circuit, No. 02–682. argued October 14, 2003, decided January 13, 2004, p 7.

²³⁰ Case *Spectrum Sports, Inc. v. McQuillan*, 506 U.S. 447, 113 S.Ct. 884 (1993) at 459.

²³¹ Case *Verizon Communications Inc. v. Law Offices of Curtis v. Trinko* (n 229) p 8.

In order to infringe the Sherman Act there has to be ‘tangible harm to the competition’,²³² since it leads to an appreciable restraint on competitors.²³³ Such appreciable restraint occurs when undertaking is able to exert power over competitors market.²³⁴ It requires a great caution before condemning a technological tie under the antitrust laws.²³⁵ An undertaking must be allowed to compete on the market, seek competitive advantages, make the production more efficient, develop complementary product, and even use different attempts to reduce transaction costs, without considering the market share.²³⁶ Technological progress indicates the introduction of new products that perform functions that previously required different products. Technological ties with difficult technical assessment requires a forward-look to the market development, which is not possible for a court to do, and may result in a higher risk to hurt consumer rather than hindering competition.²³⁷

4.1.3 Leveraging Patents and Technical Tying

An undertaking may extend its patents and its position on the market in different ways for example by improperly exploiting its patent in order to extend the patent monopoly or through leveraging a monopoly position. This may be regarded as an effective means of restraining competition in areas of unpatented supplement products to a patentee’s product.²³⁸ Essentially, no patent owner shall be deemed guilty of misuse or illegal extension of patent right by reason of sale of the patented product on the acquisition of a separate product, unless, in the view of the circumstance, the patent owner has market power in the relevant market for the patented product on which the sale is conditioned.²³⁹ In the *Honeywell* case monopoly leveraging was described as:

‘... monopoly power in one market, the use of [that] power, however lawfully acquired, to foreclose competition, to gain a competitive advantage, or to destroy a competitor in another distinct market, and injury caused by the challenged conduct.’²⁴⁰

In regard of the Sherman Act,²⁴¹ the maintenance of a monopoly power and the use of anti-competitive conduct may be considered to violate the Sherman Act for leveraging concerns.²⁴² It has to consist of a close link between the alleged illegal

²³² Case *AD/SAT, A Division of Skylight, Inc. v. Associated Press*, Newspaper Association of America, and others Docket No. 96-7304 181 F.3d 216 (2nd Cir. 1999) June 23, para 49.

²³³ C Ahlborn et al (n 188) p 293.

²³⁴ Case *United States Steel Corp. et al. v. Fortner Enterprises*, 394 U.S. 495, 503 (1969).

²³⁵ Single firm conduct under the Section 2 of the Sherman act, US department of justice 2008, <http://www.justice.gov/atr/public/reports/236681.pdf>, p 88.

²³⁶ Case *AD/SAT* (n 232) para 50.

²³⁷ US department, Single firm conduct (n 235) p 88.

²³⁸ Y Even, ‘Appropriability, First Sale & Exhaustion’ (September 28, 2008) pp 32-33, available at SSRN: <http://ssrn.com/abstract=1274822> accessed 18 May 2013.

²³⁹ 35 U.S.C. § 271(d) Infringement of patent.

²⁴⁰ Case *Grand Light & Supply CO., INC. v., Honeywell, Inc.*, Micro Switch, Nos. 995, 997, 771 F.2d 672, 41 UCC Rep. Serv. 1610, Docket 84-7868, 84-7900 Sept. 10, 1985. United States Court of Appeals, 771 F.2d 672 (2d Cir. 1985).

²⁴¹ Sherman Act, 15 U.S.C §2.

²⁴² J Langer (n 96) p 45.

behavior and the market power possessed by an undertaking, resulting in dominating or come close to dominate the neighbor market.²⁴³ The main focus of the US model appears in the tied market. Leverage cases only constitute an infringement of Sherman Act §2 if the undertaking is already dominant in the tied market, or if the probability of acquiring monopoly power in that tied market is high.²⁴⁴

In the case *Berkley Photo v. Eastman Kodak* from 1979 the US Supreme Court accepted the proposition that the improper use of monopoly by leverage to strengthen its monopoly power in another market may lead to a violation of the Sherman Act §2. In this case, such a violation stemmed from an undertaking that used its monopoly power only to gain competitive advantage in the second market, even without attempts to monopolize. Kodak may therefore have violated the Sherman Act on the grounds that it refused to sell Berkley bulk film for use in the Minolta camera and gained the advantage in the other market by refusing to sell such the product. Furthermore, such misuse of power would be deemed illegal regardless of whether the monopoly would be legally or illegally acquired.²⁴⁵

For an undertaking that possesses a monopoly in one market, more than the result of a competitive advantage in another market is required to give and to extend the monopoly power in leveraging.

4.2 Chapter Conclusion

Product integration can be an opportunity to interconnect components to new products which were formerly sold separate. However, if the unity criteria of combined components with patents of different technical value would be too strictly provided, it would result in decrease of innovation, and less access to new technology. Such integration together with technical tying may also contribute to higher consumer prices and barriers to enter. The US antitrust system rests on the ideology of free competition, and for a conduct to be regarded anticompetitive the technical tying has to constitute separate products also sold separately by other actors on the market, consumers coerced into buying, and produce a tangible harm to the competition, resulting in exerting powers to restrain competitors. Furthermore, technical tying can also infringe the Sherman Act if an undertaking uses its monopoly position to leverage its position into another market or even if it ties patented and unpatented product given that it has a dominant position in the patented market not caused by the patent protection. Technological tying additionally requires a difficult technical assessment and a forward-look to the market development, with the consequences that the Court risks to hurt the consumer rather than hinders competition.

²⁴³ J Langer (n 96) p 45.

²⁴⁴ Ibid p 49.

²⁴⁵ Case *Berkley Photo, Inc. v. Eastman Kodak Co.*, 603 F.2d 263, 275 (2d Cir. 1979) para 94.

5 Analysis: The Interaction between Patents and Technical Tying and its Anti-competitive Effects

However the European Patent court shall follow the normal procedure for a preliminary ruling and is then obliged to refer questions of interpretation and question of validity of EU law²⁴⁶, and CJEU will avoid deciding substantive matters of patentability and infringement related to EU law.²⁴⁷

The two legal areas of competition law and IP overlap with the similar intention to promote innovation and consumer welfare. The analysis here will assess the technical tying and strategic patenting to develop, first, the discussion about the possibility of these two legal areas in a stand-alone perspective, and second the two areas interaction to show whether it provides evergreening and/or foreclosure for competitors.

In this regard, it is important to highlight that there are situations, where competition law is applied to undertakings that have misused the exercise of patents. However, there are also situations where the exercising was completely lawful and still fell under the scope of anti-competitive behavior.²⁴⁸

Undertakings, with a dominant position on the market, are assumed to have a higher responsibility and not make it more difficult for other undertakings to enter the market.²⁴⁹ Besides, the idea of a dominant undertaking to combine technical tying and patent strategies would increase their power to leverage, which in turn could increase its dominant position, resulting in hindering competitors to enter the market.

The analysis will move on to examining the two concepts of technical tying and strategic patenting in combination with one another. Evergreening will be considered in compliance to patent extensions and the leveraging theory will be considered from a technical tying point of view. The effects stemming from such arrangements will be assessed together with the impacts of the evolving technological market. The result of this finding will be examined from a policy perspective, looking at whether the EU could learn from the way US has chosen to organize the balance between IPR and antitrust infringement.

²⁴⁶ Council, Notices from European Union Institutions, Bodies, Offices and Agencies ‘Agreement on a Unified Patent Court’, 2013/C 175/01 Article 38

²⁴⁷ Latham & Watkins Litigation Department, EU Patent Reform: EU Member States Approve New European Unified Patent Court to Accompany New EU Unitary Patent, Client Alert, Number 1474, 25 February 2013

²⁴⁸ S Anderman (n 22) p 24.

²⁴⁹ Hoffmann-La Roche (n 21) p 13.

5.1 Possibility of Technical Tying and Patent Complexity

Both technical tying and complex patent integrations are important tools in order to promote efficiency, like the illustrative example of computer games as tying products and consoles as tied products cannot operate from the close technical link of the design, as discussed in the above Section 2.1.²⁵⁰ Such integration simply promotes efficiency on the market, since there may be a lower price over all,²⁵¹ but also in accordance with the consumer convenience since the products do not need to be bought separately.²⁵²

Even if tying arrangement for protection of the consumer leads to a better protection of the market,²⁵³ it does not change the fact that any abuse of a dominant position may still contribute to an anti-competitive behavior. The Commission's approach is therefore more and more based on the anti-competitive conduct of undertakings.²⁵⁴

Follow-on patents contain the same possibility of incentives for innovation with patent application protecting such advancements. It also remains essential to guarantee the protection of the patentee by restricting others of using the patent,²⁵⁵ in order to establish the product on the market.²⁵⁶ The public disclosure of a patented product is an incentive to innovate for the undertaking, which in turn promotes the efficiency on the market.²⁵⁷ The contribution to the market also stems from solutions of integration of already existing inventions or even follow-on patents.²⁵⁸ If this would not be the case, there would be no future for the technology industry, and such a minefield of patents would make it impossible for competitors to enter the market. In practice the patent and the given exclusivity must balance the potential misuse that such a position can create.²⁵⁹ If an undertaking would extend the protection of the inventions it would obstruct of the competition on the market and hinder the entry of competitors; all discussed in Section 3.2 above.²⁶⁰

5.2 The Impact of an Evolving Industry

As discussed in Section 2.2 above it is difficult to determine distinctive products in the technology industry because the industry is constantly evolving and what appears one day to be separate products may the next day be regarded as forming one single product.²⁶¹ The perception of what constitutes a product is thus

²⁵⁰ Guidance on the Commission's enforcement [2009] OJ C 45/02 (n 15) para 48 and, footnote 2.

²⁵¹ R Which and D Bailey (n 7) p 690.

²⁵² Guidance on the Commission's enforcement [2009] OJ C 45/02 (n 15) para 6.

²⁵³ Case C-501/06 P *GlaxoSmithKline* (n 42).

²⁵⁴ T Käseberg (n 44) pp 35-36.

²⁵⁵ V Korah (n 154) para 9.01(9-7).

²⁵⁶ Case C-15/74 *Centrafarm* (n 103) para 9.

²⁵⁷ H Macqueen et al (n 105) p 377.

²⁵⁸ EU Pharmaceutical Sector Inquiry report final (n 14) para 497, p 190.

²⁵⁹ H Macqueen et al (n 105).

²⁶⁰ H Ullrich (n 174) p 6.

²⁶¹ Case T-201/04 *Microsoft Corp v. Commission* (n 2) para 913.

constantly changing both from a public and from a business perspective, depending on what may be understood as normal to include in a product for the comfort of consumers.²⁶² The definition of the products may then constitute the interlinking of the different components that may form a new product.²⁶³

The consumer plays an important role in defining the products since the consumer requires the choice of combining different products. If the consumer is refused such a choice by a tying arrangement, it constitutes distinctive products. It therefore depends on whom the product is directed to, how the product is produced within a distribution chain where the costumers would want to be able to choose from different products or if the customer is the end consumer who would like the product to only function. Competitors' manufacturing of compatible products does not really hinder competition, and is therefore only illegal if it leads to a patent infringement.²⁶⁴ What remains important is the demand on the tying product without the tie arrangement it is clear that an integrated version may be beneficial for the consumer.²⁶⁵ To assess the supply of products, whether it is common to integrate in that market or in neighbor markets, may be regarded to strict. However, an assessment of the trends within the technology industry as the Commission did in the EU *Microsoft* case would suffice, since it shows not only the effect the integrated products may have on the market but it also allows for innovation and product development.²⁶⁶

Since the evolving technology industry has grown more important, the definition of the products within the assessment of the CJEU, is no longer as important as before and bigger emphasis has been given to the market definition of the products.²⁶⁷

5.3 Technical Tying and Patents in Dangerous Combinations

The balance between IPR and competition law is very important²⁶⁸ especially when it comes to technical tying arrangement. The technology industry is based on cumulative inventions, which without a technology breakthrough would not provide routes for further innovations through improvements or applications.²⁶⁹ The evolving technology industry could result in changes for the definitions of what constitutes a product, which in turn may lead to an increased dominant position where competitors are foreclosed from entering the market. It is also well-known that too much patent protection may be just as harmful to innovation..²⁷⁰ A patent cannot normally be compromised in accordance to Article 345 TFEU. However, if

²⁶² R Which and D Bailey (n 7) p 692.

²⁶³ Treaty on the Functioning of the European Union (n 28).

²⁶⁴ Case T-30/89 *Hilti v. Commission* (n 37) para 68.

²⁶⁵ H K S Schmidt (n 3) p 207.

²⁶⁶ *Ibid.*

²⁶⁷ *Ibid* p 197.

²⁶⁸ *Hoffmann-La Roche* (n 21) p 18.

²⁶⁹ IDEI report on Objectives and Incentives at the European Patent Office, commissioned by SUEPO, the Staff Union of the European Patent Office, [2006] December, http://www.idei.fr/doc/by/seabright/report_epo.pdf, accessed 5 May 2013 (technically interlinked claims).

²⁷⁰ R J R Peritz (n 190) p 30.

it generates into an abusive behavior due to the position of a dominant undertaking, it enters under Article 102 TFEU,²⁷¹ where the abusive behavior in its entirety has to be regarded as restricting competition.²⁷² Thus Article 102 TFEU also helps to eliminate potential failures in the patent system, in the light of competition and public interest.²⁷³

5.3.1 Combining Patents in Technical Tying Practice

The most complex system of combination of patents is found within the technology industry.²⁷⁴ Undertakings may try to reach a longer protection for their patents where an undertaking would use its freedom to combine follow-on patents and incremental innovations. The incentive would be to reach an evergreening stage to keep its competitors off the market. Choosing inventive steps makes it is easier for an undertaking to reach an evergreen protection.²⁷⁵ The more complex structures of previous or complementary inventions built around the basic invention, the more difficult it is to detect evergreening, as discussed in Section 3.2.²⁷⁶

The unity requirement has an important role within the technical relationship, when combining different patents if there are different claims on the inventions or even alternative claims on a single invention.²⁷⁷ In this regard products protected under the same patent will be regarded by the competition authority as the same product and will therefore not infringe Article 102 TFEU.²⁷⁸ Products combined in patent structures like Markush grouping, resulting in a unity of different products within the same structure, can thus not be considered a tying infringement, whereas different minor changes of products within the structure could make it possible to combine new elements, incremental innovation in order to extend the protection.²⁷⁹

Technical tying included into such combination could increase the spider web of complexity. In this regard, a minor variation that would not be harmful in another situation could in such a web create great harm to the market by extending the period for the legal monopoly of an undertaking.²⁸⁰

In such complexity, regard can be taken to interlinked components as A+B+C, referred to earlier in Section 3.1.2 and where it may include sub-combination of the components like, A+B, A+C, B+C. This provides an example of what is registered as a first combination patent but what would happen if such combination were to be combined in a technical tying practice with the same kind of patent combination

²⁷¹ Case 24/67 *Parke, Davis & Co. v. Probel, Reese, Beintema-Interpharm and Centrafarm* (n 103) p 72.

²⁷² Case T -203/01 *Michelin v. Commission* [2003] ECR II-4071, para 237.

²⁷³ D Xenos (n 107) p 98.

²⁷⁴ S Torrisi (n 152) p 8.

²⁷⁵ K Roos et al (n 104) p 260.

²⁷⁶ S Torrisi (n 152) p 7.

²⁷⁷ Guidelines European Patent Office examination (n 111) p 611- 612, Part F - Chapter V-1Chapter V-2 para 2.

²⁷⁸ H K S Schmidt (n 3) p 197.

²⁷⁹ Guidelines European Patent Office examination (n 111) p 614, Part F - Chapter V-4, para 5.

²⁸⁰ S Parker and K Mooney (n 161) p 236.

structure?²⁸¹ Components like D+E+F would constitute a new product and if D would be possible to combine with the component A or B or C and with E or F, it could lead to a very complicated web of patent combinations. The combination is thus not within the same patent application and could therefore be considered as two separate products in a tie. The tie could therefore be a strategic solution for an undertaking, if the patents are about to expire in the first combination of A+B+C series but not in B+C+D.

For an attempt to reach an extended legal protection from a patent, the only possibility to reach an evergreening stage is through incremental innovations to a product. Strategically R&D efforts help to reach such market position.²⁸² As illustrated, strategic patenting may be regarded as a toolbox of an undertaking, with different tools for different industries, to ensure the revenue stream, and prevent competitors from entering.²⁸³ However, for an undertaking to *win it all*, the technical tying together with a complex patent system could further serve as to remove the legal certainty and create a minefield of patents²⁸⁴ in order to maintain the market position and make the entry more difficult for competitors.²⁸⁵ While incremental inventions were sought for to extend the life-cycle of a patent, technical tying produced new combinations to maintain market dominance, which could lead to an anti-competitive behavior,²⁸⁶ since that web would make it impossible for competitors to enter, as discussed in Section 3.2.2.²⁸⁷

The US Supreme Court has, in relation to different legal areas effecting different areas of law, discussed a theory: the butterfly effect²⁸⁸ where small changes in the initial patent conditions could result in large differences in a later stage thus causing effects on the competition on the market.²⁸⁹

5.3.2 Combining Patented and Unpatented Products in Technical Tying

The combination of an unpatented product and patented product could more easily lead to different product markets, if not fully integrated and thereby the tying of them will be considered an infringement of Article 102 TFEU.²⁹⁰ The US legal order has dominated over the combination of patents and unpatented products since the misuse doctrine patents.²⁹¹ The US code states that patent owner who misuses the patents rights through sale of patented products together with separate products, where the owner has market power for the patented product on which the sale is

²⁸¹ Guidelines European Patent Office examination (n 111) p 620, Part F - Chapter V-10, para 14.

²⁸² S Wagner (n 131) p 6.

²⁸³ EU Pharmaceutical Sector Inquiry report final (n 14) para 469, p 183.

²⁸⁴ Ibid para 525, p 196.

²⁸⁵ S Parker and K Mooney (n 161) p 239.

²⁸⁶ I S Bansal et al (n 173) p 299.

²⁸⁷ EU Pharmaceutical Sector Inquiry report final (n 14) para 479, p 186.

²⁸⁸ The name of the butterfly effect, coined by Edward Lorenz, is derived from the theoretical example of a hurricane's formation.

²⁸⁹ R J R Peritz (n 190) p 52.

²⁹⁰ H K S Schmidt (n 3) p 197.

²⁹¹ W D Coston, 'The Patent-Antitrust Interface: Are There Any No-No's Today?-', Venable, White paper, January 2013, p 3, <http://www.venable.com/the-patent-antitrust-interface--are-there-any-no-nos-today/>, accessed 7 August 2013.

conditioned, may be deemed guilty of misuse or illegal extension of the patent right.²⁹²

In EU the question is rather whether an undertaking's attempt is to leverage its position from one market to another. A dominant undertaking which, is stronger in the market of the patented product would be able to leverage by using technical tying to create a stronger and even more dominant position. As the Commission has noted it is not necessary to have a dominant position in the tied market for being considered infringement of Article 102 TFEU.²⁹³ The dominant undertaking would then have a stronger probability of distorting the competition for the competitors doing business within the same industry. As was concluded in the case *Microsoft*, where the tie of the web browser Internet Explorer and the dominant operating system Windows led to distort competition on the merits between competing web-browsers.²⁹⁴ In regard of making such a leverage work, the value of the patented product has a crucial role. If the patented product has such a high value so that the tie increases the quality of the other unpatented product, it could result in a higher reputation and be very beneficial for the undertaking in question.²⁹⁵

The evolving technical tying contributes to the difficulty of distinguishing the separate products within the technical integrated system. The markets even though providing distinct products may be considered very closely linked which results in that they could easily affect one another. Undertaking applying technical tying could in this sense run a greater risk to leverage its position from one market to another.²⁹⁶

A dominant position *per se* is not an issue; it is the actual abuse of it. It means that having two separate products containing different markets could lead to an anti-competitive foreclosure.²⁹⁷ To have it regarded as two distinct products, the link between the two products has to be natural or for commercial use.²⁹⁸

The determination of closely interlinked markets requires a case-by-case assessment. Such assessment is based on the supply and demand structure of the market, and the characteristics of the products concerned. However, as AG Colomer's opinion states, Article 102 TFEU should in cases concerning the balance between IP and competition law be considered in a strict sense. The degree of control, because of the easy penetration through leveraging within technical tying, could determine a foreclosure of competitors.²⁹⁹ In this regard, it should be for the legislator to decide the correct period of protection and not for the dominant undertaking in question.³⁰⁰

²⁹² 35 U.S.C. § 271(d) Infringement of patents.

²⁹³ Guidance on the Commission's enforcement [2009] OJ C 45/02 (n 15) para 50 footnote 3.

²⁹⁴ European Commission, Press Release, Antitrust (n 83).

²⁹⁵ W D Coston (n 291) p 3.

²⁹⁶ J Langer (n 96) p 50

²⁹⁷ Guidance on the Commission's enforcement [2009] OJ C 45/02 (n 15) para 50.

²⁹⁸ Case T-201/04 *Microsoft Corp v. Commission* (n 2).

²⁹⁹ Case C-333/94P, *Tetra Pak II*, Opinion of Advocate General R-J Colomer, para 57 (technical tying as a leverage concern).

³⁰⁰ IP/05/737 Brussels, 15th June 2005 http://europa.eu/rapid/press-release_IP-05-737_en.htm, accessed 6 May 2013 (patent evergreening).

5.3.3 The Risk for the Market

The attempts with follow-on patents or incremental innovations, unexpected effect, or Markush grouping are all patent arrangements, which could lead to extending the patent, providing evergreening. In situations, where there is a higher risk of foreclosure of the market, the Commission is also more likely to take action.³⁰¹ In such a way, the undertaking attempts to preserve the main activity to itself to protect its position, leading to an anti-competitive behavior in absence of an objective justification.³⁰²

Since the technological advance is not the same in all fields, a one-size-fits-all intellectual property system simply does not function.³⁰³

Since technical tying is tying of technical products there is automatically a link between the tying and the tied market. Associative markets establish that costumers in tying market would easily be customers in the tied market, which leads to that dominance in the tying market is likely to affect the tied market.³⁰⁴

As discussed in Section 2.2.5, technical tying by a dominant undertaking runs a higher risk of eliminating the competition on the market,³⁰⁵ which leads to the fact that dominant undertakings have a higher responsibility to compete fairly on the internal market.³⁰⁶ This is because it can be considered that a market share could be seen as connected to the dominant position of an undertaking.³⁰⁷

The balance of competition is important as mentioned in Section 2.2.4, since it otherwise makes it difficult for competitors to make sales in the present or even in the future.³⁰⁸ It further means that technical tying arrangement cannot be made to alter the balance of the competitors in favor of an undertaking.³⁰⁹ Technical tying could further mean that the technical integration is so strong that one product cannot work well without the tied product, produced by competitors.³¹⁰ In turn this leads to a potential risk of less competition as mentioned in Section 2.2, leading to higher prices,³¹¹ resulting in a reduction of products, which would compromise the entry for competitors.³¹² Such conduct may prevent competitors from bringing innovative goods to the market,³¹³ and therefore not contribute to the technical development.³¹⁴ The US approach seems to regard product integration in a different

³⁰¹ Guidance on the Commission's enforcement [2009] OJ C 45/02 (n 15) para 53.

³⁰² Case 311/84 *Centre Belge d'Etudes de Marche Telemarketing v. CLT* [1985] ECR 3261, para 27 (foreclosure effect for competitors).

³⁰³ I Lianos and R C Dreyfuss, 'Center for law, New challenges in the intersection of intellectual property right with competition law, a view from Europe and the United States, economics and society (CLES)', (Faculty of Law UCL Working Paper Series 4, 2013) p 9.

³⁰⁴ C-333/94 P *Tetra Pak v. Commission* (n 30) para 29.

³⁰⁵ Case T-201/04 *Microsoft Corp v. Commission* (n 2) para 1291.

³⁰⁶ Guidance on the Commission's enforcement [2009] OJ C 45/02 (n 15) para 20.

³⁰⁷ *Ibid* para 15.

³⁰⁸ S Bishop and P Marsden (n 5) p 3.

³⁰⁹ Case T-201/04 *Microsoft Corp v. Commission* (n 2) para 1034.

³¹⁰ Guidance on the Commission's enforcement [2009] OJ C 45/02 (n 15) para 48 footnot 2.

³¹¹ Guidance on the Commission's enforcement [2009] OJ C 45/02 (n 15) para 55.

³¹² Guidance on the Commission's enforcement [2009] OJ C 45/02 (n 15) para 58.

³¹³ Case T-201/04 *Microsoft Corp v. Commission* (n 2) paras 643, 647, 648, 649, 652, 653 and 656.

³¹⁴ Communication from the commission, guidance on the commission's enforcement priorities in applying Article 82 EC treaty to abusive exclusionary conduct by dominant undertakings, February

way, with a more lenient and less interventionistic approach to create better efficiency.³¹⁵

5.4 EU on the Right Path?

Considering the evolving technology industry, technical tying is increasingly growing.³¹⁶ As has been shown, more attention has been given to power associated with IPR, which was formerly only considered to coincide with the market power. This is because more aggressive strategies have been developed by the undertakings.³¹⁷

As has been concluded, there is no real difference between technical tying and contractual tying in regard of the assessment made by the Court³¹⁸ and does not in particular consider the benefits and the efficiencies that stem from the integration of the products.³¹⁹

Intellectual property is not the only issue to encourage innovation. Competition law plays an important role as well, since competing companies are more inclined to innovate in order to preserve or gain a better position on the market than to harm competitors. The Commission has emphasized the positive effect of vigorous competition enforcement on innovation.³²⁰

Article 345 TFEU³²¹ reserving IPR enforcement to national authorities, provides the EU protection of the internal market and the balance between IPR and competition law more difficult to achieve in reality.³²² The unified patent Court, which all Member States have ratified to improve enforcement of patents, may be the first real attempt able to reach a balance between patent and competition law. It would further lead to a stronger incentive to protect the internal market, and provide an enhanced legal certainty, with better integration of EU.³²³

5.4.1 Different Approach to the EU Assessment

When comparing the assessment of abusive conduct between EU and US, it is of interest to first start with the wording of the legal codes. Article 102 TFEU clearly states that any abuse of a dominant undertaking is considered illegal while the Sherman Act states that any person who monopolizes or attempts to monopolize the

2009, [2009] OJ C 45/7, <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:C:2009:045:0007:0020:EN:PDF>, accessed 3 August 2013.

³¹⁵ J Langer (n 96) p 104.

³¹⁶ D W Hull (n 19) p 287.

³¹⁷ S Anderman (n 22) p 5.

³¹⁸ Case T-201/04 *Microsoft Corp v. Commission* (n 2), paras 850-59.

³¹⁹ S Anderman (n 22).

³²⁰ M J Reynolds and C Best, 'Article 102 and innovation: the journey since Microsoft', Allen & Overy, *Global Trends in Antitrust*, First Edition, 2013, p 52 www.allenoverly.com, accessed August 10, 2013.

³²¹ Consolidated Version of the Treaty on European Union [2010] OJ C 83/194(EU patent system).

³²² H Macqueen et al (n 105) p 23.

³²³ Council of the European Union 16351/12, PI 148 COUR 77 'Agreement on a Unified Patent Court', Brussels, 11 January 2013, pp 3-4 (EU patent system).

market will be deemed guilty of offence.³²⁴ The linguistic difference is interesting since the EU seems to have the stricter view and more regard an undertaking's behavior than the aftermath of such behavior while the Sherman Act takes into regard the legal effect of such behavior for the market.

It could be demonstrated from the Commission's way of focusing on the economic effects and competition rules that its approach is more and more the anti-competitive conduct of undertakings.³²⁵

This can be further demonstrated in the case of *British Airways*, where it requires demonstrating that the abusive conduct of an undertaking in a dominant position *tends to restrict* the competition. As the case also clarifies, it indicates the capability, and the likelihood to create such effect.³²⁶

The US on the other hand has a slightly different approach, since section §2 of the Sherman Act is more directed towards conduct which tends to destroy competition itself rather than taking regard to whether the conduct is competitive.³²⁷ Attempts to monopolize have therefore the higher requirement that an undertaking has to be considered to have a dangerous probability of monopolization.³²⁸ To restrict the pro-competitive effect and consumer interest, an undertaking with market power has to take steps incompatible with the competitive process.³²⁹ Such high demand on consumers' interest provides that for the conduct to be regarded as anti-competitive within technical tying cases, it has to affect the consumer interest under Sherman Act Section 2. In the four criteria mentioned in this thesis under section 2.2 above, CJEU had not the same high demand on consumer interests and merely assumed that anti-competitive conduct is present when less competition is on the market since new product may be hindered to enter.³³⁰ On both sides of the Atlantic the courts suggest that a technical tying arrangement has to offer *something more* to the integration of the two products,³³¹ which further relates to that it has to include a specific *technical value*.³³² Taking the consumers into account, in cases involving technical ties, innovation efficiency should be an important consideration since the increase in quality benefits consumers more than anti-competitive effect may harm them.³³³

The US competition would further be badly served if undertakings, which have managed to reach a market success of monopoly power, would be forced to 'lie down and play dead'.³³⁴ In this regard the Sherman Act shall protect the process of competition, which stimulates undertakings to succeed and should not suppress monopoly itself or prevent undertakings to exercise monopoly power.³³⁵

³²⁴ Sherman Act, 15 USC § 2.

³²⁵ T Käseberg (n 44) pp 35-36.

³²⁶ Case T-219/99 *British Airways plc v. Commission* [2003] para. 293.

³²⁷ U.S. *Spectrum Sports, Inc. v. McQuillan*, 506 U.S. 447, 113 S.Ct. 884 (1993) para 892.

³²⁸ *Ibid* para 459.

³²⁹ US department, Single firm conduct (n 235) p 8.

³³⁰ Case T-201/04 *Microsoft Corp v. Commission* (n 2) para 643.

³³¹ H K S Schmidt (n 3) p 206.

³³² *Ibid* p 207.

³³³ D E Gaynor (n 212) p 23.

³³⁴ US department, Single firm conduct (n 235) p 8.

³³⁵ *Ibid*.

Even though a consumer prefers an integrated product to just one, the case-law on both sides of the Atlantic proves that the question of technical tying lies within the two separate products. In this regard, tying as referred to in the *Jefferson Parish* case, the product has to consist of two products for it to be regarded as a tie. It is then of relevance to consider whether the products are integrated or could be regarded as two products. However, the consumer demand test is not enough here and a more sophisticated detailed analysis of the integration of the two products and the market conditions is required. It would require a better assessment of the product itself and to go beyond the scope of IP for the competition authority.³³⁶

An important aspect to consider when discussing the legal doctrine of technical tying is the difference between the two legal systems that founded the different approach of tying in relation to the defense. The possibility for an undertaking to make a defense occurs after finding the abuse. Standard of proof is high and the justification has to be balanced against the anticompetitive effect it might have for the market.³³⁷ The US defense appears instead at the stage of assessing the two separate products. Even though it may be considered simpler, the US system could not be considered more sensitive to the benefits that technological integration can bring with developments and innovations.³³⁸

5.4.2 Potential improvements

The relationship between intellectual property rights and competition policy is not straightforward since there is an obvious potential for conflict between systems.³³⁹ Since competition drives undertakings towards innovation, and if competition means growth, we need a well-regulated competition in the internal market to heal the crack in the structure.³⁴⁰

The fact is that the consumer demand test can thus not work in a fast growing dynamic market such as technology industry.³⁴¹ Great caution should be granted to the assessment of technological tie under anti-trust law. The key feature of technology progress is the introduction of new products that perform better function than the previous required multiple products. In this regard it may be difficult for the Court with complicated technical tying to see the future of business issues, which lead to that a wrongful assessment, may rather hurt than help the consumer.³⁴²

The *Microsoft* case is seen as an important building block for technical tying doctrine to be established on. The case does not only focus on the benefit for the

³³⁶ H K S Schmidt (n 3) p 206.

³³⁷ Ibid p 208.

³³⁸ Ibid.

³³⁹ M J Reynolds, C Best, Article 102 and innovation: the journey since Microsoft, Allen & Overy, Global Trends in Antitrust, First Edition, 2013 p 52.

³⁴⁰ Joaquín Almunia, Vice President of the European Commission responsible for Competition Policy, Priming Europe for growth, European Commission - SPEECH/12/59, Brussels, 2 February 2012, http://europa.eu/rapid/press-release_SPEECH-12-59_en.htm, accessed 8 May, 2013.

³⁴¹ C Ahlborn et al (n 188) pp14-15.

³⁴² US department, Single firm conduct (n 235) p 88.

consumers but has also the imperative issue regarding whether the integration is purely strategic or only innovative.³⁴³

In line with AG, the CJEU should make a weighted balance between, on the one hand the interest in protecting the IPR and the economic freedom of its owner and on the other hand the interest in protecting free competition. However, to provide such balance, the protection of competition has to be considered in accordance with the consumer welfare.³⁴⁴ The Court has to be able to see the differences from a technical tying between beneficial integration from a consumer perspective and strategic exercise by an undertaking to exclude competitors. Courts shall not ignore difficult technical assessments in these types of cases. It is of importance that all aspects in a case of technical tying are to be assessed. Such argument raises the question whether the Court in fact is the best instance to assess technical tying in such integrated processes.³⁴⁵

The establishment of the Patent Court, where the grants and litigation of patents will be centralized, may increase a better balance between anti-competitive enforcement and the EPO. Since there is no court dealing with both patent and anti-competitive behavior on the market the communication and the cooperation is of special importance to reach a better understanding of the product and the market.³⁴⁶ The referral of question from the patent court to the CJEU could provide such a cooperation where patent question relating to competition law could be sent for a preliminary ruling to the CJEU.

³⁴³ H K S Schmidt (n 3) p 207.

³⁴⁴ Case C-418/01 *IMS Health GmbH & Co. OHG v. NDC Health GmbH & Co. KG, AG Tizzano* ECR -5039 [2004] para 62.

³⁴⁵ H K S Schmidt (n 3) p 208.

³⁴⁶ *Ibid.*

6 Conclusion

The interaction between technical tying and competition law is discussed from a point of view of combining patents with patented and/or with unpatented products, and whether and to what extent this may constitute an anti-competitive effect, considering also effects on the EU market and potential improvements.

When a dominant undertaking, with a dominant position in the tying market, uses technical tying to combine a patented and an unpatented product, it may lead to anticompetitive behavior in certain described situations. If the two products are linked with a tie, they may be regarded as separate products, provided that they have different production and consumer demands on the market. The technical design could anyhow constitute a natural link between the products. However, the market definition also has to be taken into account. If the product combination is relatively new on the market the commercial practice does not exist, which makes it difficult to define such integration.

However, if the integration may provide a superior technical performance, it may be accepted. The market definition, when it is narrowed by the Court, does not take into account the efficiency of the superior performance. The reason for this may be the threatening of the dominant position, since dominance and abuse are so closely linked. In this regard, the undertaking may be able to leverage its position from the market, where the undertaking is dominant to the market where it is not dominant, especially if the markets are closely linked. This would in turn lead to an effect both for the market, where competitors are eliminated and for the competitors, which are hindered to enter the market with new products.

A tying combination of two different patents would be considered to follow the same structure as above. However it may differ when a complex patent combination is present. Combining two patents could lead to anti-competitive behavior from an evergreen perspective, since patents may provide different technical combinations. When tying a patented product with a new solution, or follow-on patents in order to extend the protection of the patent, the resulting product may consist of combinations like A+B+C being linked to B+D+E where sub combinations could increase the web of complexity. Such integration could be found within incremental innovations connected to an invention or even structural patent systems, where new features easily may be included like in Markush grouping. This type of attempt to extend the protection is regarded as evergreening. The extension may in turn provide a hinder for competitors to enter the market, which results in foreclosure and may enter under Article 102 TFEU.

Market effects can be detrimental to such abusive conduct since it would alter the balance of competitors in favor of the undertaking. If such combination of separate products is made with a close technical attachment, and regarded not to be in compliance with commercial practice, it could mean that the products are so strong that neither of them would work well without the attached tied product. It would in turn lead to a potential risk of less competition, leading to higher prices for the consumers, resulting in a reduction of products on the market, and making the entry

for competitors very difficult. It could further prevent innovation of products and decrease the technical development.

When looking at the CJEU assessment from a US perspective, changes that could promote competition could be suggested. Unlike the US system, the CJEU takes regard to the undertakings' conduct rather than the effect such conduct has on the market. Considering this, it gives a clearer picture to the reason why the US assessment takes the efficiencies of technical integration of products into account. When the CJEU assesses the separate product issues in a technologically evolving industry, from the market considerations of a product, the innovation and the potential superior technical function stemming from such combinations may not be considered. It is moreover not possible to constitute whether the two separate, innovative products within the fast evolving industry is considered to be in accordance with commercial usage with competing undertakings.

The question is whether EU after the establishment of the Patent Court will achieve a better cooperation with the EPO when dealing with technological integration of products. The CJEU no longer has to look into the technological future without having technological competence to do so. The products should therefore have to be assessed in accordance with the innovative prospect, in order to promote efficiency on the market, and leave competition to be regarded as the driver of economic growth. As shown in this thesis the balance between on the one side the patent protection and the anti-competitive behavior will have to be present. The question remains whether the Patent Court, to be established in EU, and the CJEU may have some kind of cooperation, which would lead to a better assessment of technology integrated products.

Bibliography

Publications

- Ahlborn C, Evans D S, and Padilla A J, 'The antitrust economics of tying: a farewell to per se illegality' (2004) Spring/Summer (49) Antitrust Bulletin
- Anderman S 'The IP and competition interface: new development' in Steven Anderman and Ariel Ezrachi (eds) *Intellectual property and competition law: new frontiers* (Oxford University Press, 2011)
- Au H T, 'Anticompetitive tying and bundling arrangement in the smartphone industry', (2012) vol 16 no 1 Fall, Stanford Technology Law Review
- Bansal I S, Sahu D, Bakshi G, Singh S, 'Evergreening — A Controversial Issue in Pharma Milieu', (2009) vol 14, July, Journal of Intellectual Property Rights
- Bently L and Sherman B, *Intellectual property law*, (3rd edn, Oxford University Press, 2009)
- Bishop S and Marsden P, 'Editorial The Article 82 Discussion paper: A missed opportunity' (2006) April, European Competition Journal
- Fratraroli S, 'Dodging the bullit again: Microsoft III's reformulation of the foremost technological tying doctrine', (2010) vol 90 (4) August Boston University Law Review
- Hull D W, 'Tying: a transatlantic perspective' in Philip Marsden (ed) *Handbook of Research in Trans-Atlantic Antitrust* (Edward Elgar publishing limited 2006)
- Jacob The Rt. Hon. Professor Sir Robin, 'Patent thickets: a paper for the European Patent Office Economic and Scientific Advisory Board meeting', (2013) (8) 3, Journal of Intellectual Property Law & Practice
- Korah V 'Intellectual Property Rights and the EC Competition Rules', in Valentine Korah (ed) *Competition Law od the European Union* (2nd edn, Matthew Bender & Co., 2012)
- Kur A and Dreier T, *European Intellectual Property law, Text, Cases and Materials* (Edward Elgar Pub., 2013)
- Käseberg T, 'Intellectual property, Antitrust and Cumulative innovation in the EU and the US', (2012) vol 1 in the series Hart Studies in Competition Law, Oxford and Portland Oregon
- Langer J, *Tying and Bundling as a Leveraging Concern under EC Competition Law* (vol 30, International Competition Law Series, Wolters Kluwer, 2007)
- Lianos I and Dreyfuss R C, 'Center for law, New challenges in the intersection of intellectual property right with competition law, a view from Europe and the United States, economics and society(CLES)', (Faculty of Law UCL Working Paper Series 4/2013)
- Macqueen H, Waelde C, Laurie G and Brown A, *Contemporary intellectual property – law and policy* (2nd edn, Oxford University Press 2011)
- Parker S and Mooney K, 'Is 'evergreening' a cause for concern? A legal perspective' (2007) (13) 4, August, Journal of Commercial Biotechnology

- Peritz R J R, 'Competition within intellectual property regimes: the instance of patent rights', in Steven Anderman and Ariel Ezrachi (eds) *Intellectual property and competition law: new frontiers* (Oxford University Press, 2011)
- Priddis S and Constantine S, 'The pharmaceutical sector, Intellectual Property Rights and competition law in Europe', in Steven Anderman and Ariel Ezrachi (eds) *Intellectual property and competition law: new frontiers* (Oxford University Press, 2011)
- Raysman R, Pisacreta E A, Ostrow S H, and Adler K A, *Intellectual Property Licensing: Forms and Analysis* (Release 26, Law Journal Press, 2011)
- Roox K, Pike P, Brown A, Becker B, and Thaler G, 'Patent-related barriers to market entry for generic medicines in the European Union: A review of weaknesses in the current European patent system and their impact on market access of generic medicines', (2008) (5) 4, *Journal of Generic Medicines*
- Schmidt H K S, 'Competition Law and Innovation: Technological Integration', in Steven Anderman and Ariel Ezrachi (eds) *Intellectual property and competition law: new frontiers* (Oxford University Press, 2011)
- Skytte Schmidt, H K, *A comparative analyses of EC competition and US antitrust approaches to tying with special reference to economic thinking and intellectual property rights* (PhD thesis, Department of Law, University of Essex, October, 2008)
- Thomas J R, 'Patent "Evergreening": Issues in Innovation and Competition', (2009) November 13, Congressional Research Service
- Tritton G, Davis R, Edenborough M, Graham J, Malynicz S, and Roughton A, *Intellectual property in Europe* (3rd edn, Thomson/Sweet & Maxwell 2008)
- Ullrich H, 'Select from Within the System: The European Patent with Unitary Effect' (2012) Research Paper no 12-11, Max Planck Institute for Intellectual Property and Competition Law
- Wagner S, 'Business Method Patents in Europe and their Strategic Use – Evidence from Franking Device Manufacturers', (2004) September 29 Munich School of Management
- Which R and Bailey D, *Competition law* (7th edn, Oxford University Press 2012)
- Xenos D, 'Limiting the IPRs of pharmaceutical companies through EU competition law: the first crack in the wall-', (2011) 8:1 SCRIPTed

Internet

- Behaviour in Competition - A Guide to Competition Law, F. Hoffmann-La Roche Ltd, Group Legal Department, 4070 Basel, Switzerland, February 2010, www.roche.com/behaviour_in_competition.pdf, accessed 7 April, 2013
- Coston W D, 'The Patent-Antitrust Interface: Are There Any No-No's Today?-', Venable, White paper, January 2013, <http://www.venable.com/the-patent-antitrust-interface--are-there-any-no-nos-today/>, accessed 7 August 2013
- Even Y, 'Appropriability, First Sale & Exhaustion' (September 28 2008) pp 32-33, available at SSRN: <http://ssrn.com/abstract=1274822>, accessed 18 May 2013

- eWeek 2005-07-18, J Rapoza ‘Europe Votes for Innovation, Not Patent Laws’, <http://www.eweek.com/c/a/Enterprise-Applications/Europe-Votes-for-Innovation-Not-Patent-Laws/>, accessed 18 August 2013
- Latham & Watkins Litigation Department, EU Patent Reform: EU Member States Approve New European Unified Patent Court to Accompany New EU Unitary Patent, Client Alert, Number 1474, 25 February 2013
- Lynk W J, Counsel for Jefferson Parish Hospital during the Supreme Court phase of this case, Tying and Exclusive Dealing: Jefferson Parish Hospital v. Hyde (1984)
http://www.oup.com/us/pdf/kwoka/0195120159_14.pdf, accessed 3 August 2013
- Morsch J and Finnigan M A, ‘Supreme Court Clarifies That A Patent Does Not Automatically Confer An Antitrust Monopoly’, (2006) July, Corporate Counsel,
http://luc.edu/media/lucedu/law/centers/antitrust/pdfs/publications/newsviews/morsch_finnigan_july_op_article.pdf , accessed 10 August 2013
- Reynolds M J and Best C, Article 102 and innovation: the journey since Microsoft, Allen & Overy, Global Trends in Antitrust, First Edition, 2013, www.allenoverly.com, accessed August 10, 2013
- Torrissi S, ‘Innovation, Strategy, and Structure – Cross-licensing, Organizations, Institutions, Systems and Regions’ (2011) Copenhagen Business School, Denmark, June 15-17, DRUID Conference,
http://druid8.sit.aau.dk/acc_papers/attpke693lu0vnluu0c55gxkvh5b.pdf, accessed 1 May 2013
- Wagner S, ‘Business Method Patents in Europe and their Strategic Use – Evidence from Franking Device Manufacturers’ (2006) Munich School of Management, Discussion paper, November, <http://epub.ub.uni-muenchen.de/>, accessed 19 April 2013

Table of Cases

EU Cases

- Case 24/67 *Parke, Davis & Co v. Probel, Reese, Beintema-Interpharm and Centrafarm 2* (Reference for a preliminary ruling by the Gerechtshof, The Hague) [1968] ECR 55
- Case 6/72 *Europemballage and Continental Can v. Commission* [1973] ECR 215
- Case C-15/74 *Centrafarm BV and Others v. Sterling Drug*, 1 October 1974 [1974] E.C.R. 1147 [1974] 2 C.M.L.R. 480
- Case C-27/76 *United Brands Company and United Brands Continentaal B V v. Commission of the European Communities* [1978] ECR 207
- Case 85/76 *Hoffman-La.Roche v. Commission* [1979] ECR 461, para 42D and 48;
- Case 322/81 *Michelin v. Commission* [1983] ECR 3461
- Case 311/84 *Centre Belge d'Etudes de Marche Telemarketing v. CLT* [1985] ECR 3261
- Case T-30/89 *Hilti AG v. Commission* [1991] ECR II-1439
- Case T-51/89 *Tetra Pak, Rausing S.A v. Commission* [1990] ECR II-309
- Case T-83/91 *Tetra Pak International SA v. Commission of the European Communities*, [1994] ECR II-0755
- Case C-350/92 *Spain v. Council*, para 27, [1995] ECR I-1985, of its Opinion 1/94 of 15 November 1994 [1994] ECR I-5267
- Case C-333/94P *Tetra Pak International SA v. Commission* [1996] ECR I-5951, [1997] 4 CMLR 662
- Case T-219/99 *British Airways plc v. Commission* [2003]
- Case T-203/01 *Michelin v. Commission* [2003] ECR II-4071
- Case C-418/01 *IMS Health GmbH & Co. OHG v. NDC Health GmbH & Co. KG, AG Tizzano* [2004] ECR 5039
- Case T-201/04 *Microsoft Corp v. Commission* [2007] ECR II-3601
- Case C-501/06 P - *GlaxoSmithKline Services and Others v. Commission and Others*, Joined Cases C-501/06 P, C-513/06 P, C-515/06 P and C-519/06 P, [2009] [I-09291]
- Case T 0198/84 (Thiochloroformates) of 28.2.1985
- Case T 0305/87 (Shear) of 1.9.1989
- Case G 0002/88 (Friction reducing additive) of 11.12.1989
- Commission decision *Eurofix-Bauco v. Hilti*, IV/30.787 and 31.488, 22 December 1987
- Commission decision COMP/C-3/37.792 *Microsoft* [2005] 4 CMLR 965
- Commission decision comp /C-3/39.530[2009] OJ C242/20
- The High Court of Justice UK, Case No: Hc12d02673 *Nestlé Nespresso v. Dualit limited*, Chancery division, Patents Court, 22 April 2013, with other national litigations in different MS

US Cases

- Case *AD/SAT, A Division of Skylight, Inc., Plaintiff-Appellant, v. Associated Press*, 181 F.3d 216 (2nd Cir. 1999)

Case *Grand Light & Supply Co., Inc. v. Honeywell, Inc., Micro Switch*, 995, 997, Docket 84-7868, 84-7900., United States Court of Appeals, 771 F.2d 672 (2d Cir. 1985)

Case *Berkley Photo, Inc. v. Eastman Kodak Co.*, 603 F.2d 263, 275 (2d Cir. 1979)

Case *Eastman Kodak Co. v. Image Technical Services, Inc. et al.*, 504 U.S. 451 (1992)

Case *Games Corp. v. Nintendo of America, Inc.*, 897 F.2d 1572, 1576 (Fed. Cir. 1990)

Case *Illinois Tool Works Inc. v. Independent Ink, Inc.* 547 U.S. 28, 126 S.Ct. 1281 U.S., 2006 Pp. 1285–1293)

Case *International Business Machines Corp. v. United States*, 298 U.S. 131 (1936)

Case *International Salt Co., Inc. v. United States*, 332 U.S. 392, 395-96 (1947)

Case *Jefferson Parish Hospital Dist. No. 2 et al. v. Hyde*, 466 U.S. 2, 12 (1984)

Case *Jerrold Electronics Corp. et al. v. United States*, 365 U.S. 567 (1961)

Case *Northern Pacific Railway Co. et al. v. United States*, 356 U.S. 1, 2 (1958)

Case *Northern Pacific Railway Co v. United States*, 356 US 1 at 4 (1958)

Case *Precision Instrument Manufacturing Co v. Automotive maintenance machine Co*, 324 US 806

Case *Spectrum Sports, Inc. v. McQuillan*, 506 U.S. 447, 113 S.Ct. 884 (1993)

Case *United States Steel Corp. et al. v. Fortner Enterprises*, 394 U.S. 495, 503 (1969)

Case *United States v. Microsoft Corp*, 147 F 3d 935 (DC Cir 1998)

Case *United States v. Microsoft Corp.*, 253 F.3d 34 (D.C. Cir. 2001)

Case *Verizon Communications Inc. v. Law Offices of Curtis v. Trinko*, Second Circuit, No. 02–682, argued October 14, 2003,decided January 13, 2004,

Table of Legislation

EU Legislation

- Communication from the Commission — Executive Summary of the Pharmaceutical Sector Inquiry Report, SEC (2009) 952, COM (2009) 351 final, Patent Filings Strategies
- Communication from the Commission — Guidance on the Commission's enforcement priorities in applying, Article 82 of the EC Treaty to abusive exclusionary conduct by dominant undertakings, [2009] OJ C 45/7, 24.2.2009
- Communication from the commission to the European Parliament and the Council, Enhancing the patent system in Europe - COM (2007) 165 final, Brussels, 3.4.2007
- Competition: Commission fines AstraZeneca €60 million for misusing patent system to delay market entry of competing generic drugs, European Commission - IP/05/737, 15/06/2005, accessed 6 May 2013
- Consolidated Version of the Treaty on European Union [2008] OJ C 115/47
- Consolidated Version of the Treaty on European Union [2010] OJ C 83/194
- Consolidated Version of the Treaty on the Functioning of the European Union, [2008] OJ C 115/47
- Council of the European Union 16351/12, Pl 148 COUR 77 ‘Agreement on a Unified Patent Court’, Brussels, 11 January 2013
- Council of the European Union, 6590/13 ‘Signing of the Unified Patent Court agreement’, Pres/13/61 Brussels, 19 February 2013, http://europa.eu/rapid/press-release_PRES-13-61_en.htm, accessed 2 May 2013
- Council, Notices from European Union Institutions, Bodies, Offices and Agencies ‘Agreement on a Unified Patent Court’, 2013/C 175/01 <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:C:2013:175:0001:0040:EN:PDF>, accessed 5 May 2013
- Directive 2004/48/EC of the European Parliament and of the Council on the Enforcement of Intellectual Property Rights, 30.4.2004 OJ L 157/ 45
- European Commission Competition DG Pharmaceutical Sector Inquiry Final Report, Adoption Date: 8 July 2009, http://ec.europa.eu/competition/sectors/pharmaceuticals/inquiry/staff_working_paper_part1.pdf, accessed 6 May 2013
- European Commission, Press Release, Antitrust: Commission Confirms Sending a Statement of Objections to Microsoft on the Tying of Internet Explorer to Windows, European Commission - MEMO/09/15, 17/01/2009 <http://europa.eu/rapid/pressReleasesAction.do?reference=MEMO/09/15>, accessed 15 April, 2013
- European Patent Convention, 14th edition / August 2010, Published by the European Patent Office, 2010 EPA/EPO/OEB, ISBN 978-3-89605-103-2
- Green Paper on the Community patent, and the patent system in Europe COM (97) 314, final 24.06.1997, Communication from the Commission
- Communication from the Commission, ‘Promoting innovation through patents’

- Guidelines for Examination in the EPO, June 2012,
[http://documents.epo.org/projects/babylon/eponet.nsf/0/6c9c0ec38c2d48d4fc1257a21004930f4/\\$FILE/guidelines_for_examination_2012_en.pdf](http://documents.epo.org/projects/babylon/eponet.nsf/0/6c9c0ec38c2d48d4fc1257a21004930f4/$FILE/guidelines_for_examination_2012_en.pdf),
 accessed 5 May 2013
- IDEI report on Objectives and Incentives at the European Patent Office,
 commissioned by SUEPO, the Staff Union of the European Patent Office,
 [2006] December, http://www.idei.fr/doc/by/seabright/report_epo.pdf,
 accessed 5 May 2013
- Implementing Regulations to the Convention on the Grant of European Patents,
 last amended by decision of the Administrative Council of the European
 Patent Organisation of 26 October 2010
- Joaquín Almunia, Vice President of the European Commission responsible for
 Competition Policy, Priming Europe for growth, European Commission -
 SPEECH/12/59, Brussels, 2 February 2012, http://europa.eu/rapid/press-release_SPEECH-12-59_en.htm, accessed 8 May, 2013
- Manual of Patent Examining Procedure (MPEP) Eighth Edition, August 2001,
 Latest Revision August 2012.
- Pharmaceutical Sector Inquiry – Preliminary Report’, Fact Sheet, ‘Originator-
 Generic competition’,
http://ec.europa.eu/competition/sectors/pharmaceuticals/inquiry/fact_sheet_2.pdf, accessed 7 May, 2013
- Regulation (EU) No 1257/2012 of the European Parliament and of the Council,
 Implementing enhanced cooperation in the area of the creation of unitary
 patent protection, 31.12.2012 OJ L 361/1, of 17 December 2012, recital
 27
- Response to the Commissions preliminary report, ‘EU Pharmaceutical Sector
 Inquiry, Reference 39514, 29.01.2009 European Commission, Directorate
 General for Competition, Anti-trust Registry Association of the British
 Pharmaceutical Industry
- The European Patent Convention and the Rules relating to Fees have been
 amended by the following decisions of the Administrative Council since
 the publication of the 14th edition

US Legislation

- Antitrust Guidelines for the Licensing of Intellectual Property, Issued by the
 U.S. Department of Justice and the Federal Trade Commission, April 6,
 1995
- Clayton Act, § 3 15 U.S.C. § 14, Sale, etc. on agreement not to use goods of
 competitor.
- Gaynor D E, ‘Technological tying’, Working Paper no. 284 (2005) Bureau of
 Economics Federal Trade Commission
<http://www.ftc.gov/be/workpapers/wp284.pdf>, accessed 16 July 2013
- Infringement of patent 35 U.S.C. § 271(d)
- Sherman Act, §1 15 U.S.C. §2
- Single firm conduct under the Section 2 of the Sherman act, US department of
 justice 2008, <http://www.justice.gov/atr/public/reports/236681.pdf>, accessed
 16 July 2013
- US Patent and Trademark office ‘2131.05 Nonanalogous > or Disparaging Prior <
 Art [R-5]’ <http://www.uspto.gov/web/offices/pac/mpep/s2131.html> accessed
 17 July 2013