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The impact of the ‘exceptional circumstances’ on the incentives to innovate in the context of refusal to supply and intellectual property rights

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Abstract

The 'exceptional circumstances' test was created by the CJEU in order to strike a compromise between the goals of intellectual property law and those of competition law under Article 102. The presence of an intellectual property rights does not always imply the presence of a dominant position. When an undertaking is considered dominant, it is still permitted to refuse the grant of a licence to its competitors. Such a right to exclude is susceptible to an exception under the 'exceptional circumstances' test. If a dominant undertaking refuses to grant a license despite the criteria of the test being fulfilled, then it is abusing its position. The criteria of the test are as follow: (i) the product is indispensable; (ii) such a refusal prevents the emergence of a new product or a technical development for which there is a demand; (iii) such a refusal leads to the elimination of effective competition; (iv) the refusal cannot be justified.

The evolution of the test in *Microsoft* demonstrates the CJEU's willingness to broaden the requirements. Some authors believe that the broadening of the test and, in particular, the condition regarding the 'technical development' gives ways for third parties to require the application of the 'exceptional circumstances' test. According to those authors, such a development impact the incentives to innovate due to the fear of businesses to lose the rewards which comes alongside with an intellectual property rights. On the other hand, other scholars believe that such an impact is limited. This subtlety stems from the fact that the Commission and the CJEU are likely to apply the test only in restricted circumstances. *Microsoft*'s requirements may not be used again in future cases since such conditions might have been caused by the circumstances of the case.

Abbreviations

AG	Advocate General
CFR	Charter of Fundamental Rights of the European Union
CJEU	Court of Justice of the European Union
DG	Directorate General
ECHR	European Convention on Human Rights
EEC	European Economic Community
EPC	European Patent Convention
EPO	European Patent Office
EU	European Union
FRAND	Fair, reasonable, and non-discriminatory (terms)
GC	General Court
IP	Intellectual Property
IPRs	Intellectual Property Rights
LTE	Long-Term Evolution (patent)
OJ	Official Journal
OUP	Oxford University Press
R&D	Research and development
SEP	Standard Essential Patent
TEU	Treaty of the European Union
TFEU	Treaty on the Functioning of the European Union
TRIPS	Trade-Related Aspects of Intellectual Property Rights
UK	United Kingdom of Great Britain and Northern Ireland
WIPO	World Intellectual Property Organisation

1. Introduction

1.1. Background

Innovation is the creative process that is followed by the implementation of the changes that result from it.[1] Since 2010, the European Union (hereafter 'EU') has had as one of its goals the creation of a 'Innovation Union'. The EU defines innovation as a change that leads to the acceleration and improvement of methods for conception, development, production, and access of products, as well as the industrialisation of processes and services in its Innovation Union plan.[2] Making the EU more innovative will allow it to compete with other global powers like the United States of America or China. As a result, innovation must be encouraged and safeguarded.

The establishment of Intellectual Property law (hereafter 'IP law') can ensure the protection of innovation. IP laws are not new: they began to evolve globally in the twentieth century, with the drafting and ratification of the Berne Convention[3] and the Paris Convention[4] which, respectively, deal with literacy and artistic property and industrial property. Later, the TRIPS agreements[5] were ratified, bringing the scope of IP laws under the purview of the World Trade Organisation. With the introduction of articles relating to IPRs, including, but not limited to, Article 216(2) TFEU and Article 17 of the Charter[6], the EU began to incorporate the field into its treaties. The EU also includes international agreements and rules such as TRIPS agreements, the World Intellectual Property Office's decisions, the ECHR,[7] which all concern or have provisions regarding IPRs. The EU established a European Patent Office (hereafter 'EPO') with the goal of establishing a unitary patent community.[8] The EU began developing a framework around IPRs throughout various directives

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[1] Săvescu D, 'Importance of intellectual property in technologic transfer', *Journal of Research and Innovation for Sustainable Society*, Vol. 2, Issue 1, 2020, p. 26

[2] Commission Memo, 'Turning Europe into a true Innovation Union', MEMO/10/473, 06 October 2010

[3] Berne Convention for the Protection of Literary and Artistic Works (as amended on September 28, 1979)

[4] Paris Convention for the Protection of Industrial Property (as amended on September 28, 1979)

[5] Agreement on trade related aspects of Intellectual Property Rights, 1994

[6] Charter of the Fundamental Rights of the European Union [2012], OJ C 326, 2012/C 326/02

[7] European Convention on Human Rights, 1950

[8] Pila J, Torremans P, European Intellectual Property Law, (Second Edition OUP 2019), p. 25.

and regulations such as the Unitary Patent Regulation[9] or the Directive on Copyright in the Digital Single Market[10]. The legislation brings IPRs under the scope and jurisdiction of the EU. As a result, the EU has taken steps to create a framework to protect IP law and the rights that go with it.

Another major goal of the EU is to avoid the distortion of competition in the internal market, as it can be seen in Article 3(1)(g) of the Treaty on the European Union (hereafter 'TEU'). According to this logic, in a world where competition law and intellectual property "has become increasingly significant in the modern global economy",[11] some authors have claimed that IPRs, whose importance has grown, are in conflict with the goals of competition law.[12] Indeed, while IP law seeks to create legal barriers to entry by granting an exclusive right to a single entity, competition law seeks to maintain an open competitive process with few barriers to entry.[13]

The primary goal of competition law is to increase efficiency and maximize consumer welfare.[14] Competition law in the European Union regulates three types of behaviour: concerted practices (Article 101 TFEU), dominance (Article 102 TFEU) and mergers. Article 102 of the Treaty on the Functioning of the European Union (hereafter 'TFEU') prohibits the abuse of a dominant position, which is synonymous with the abuse of market power. The Commission will take several steps to determine whether Article 102 has been violated. It will first assess the dominance by determining the relevant market.[15] Then, the Commission must establish the dominance through a variety of factors such as market power, market

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[9] Regulation n°1257/2012 on implementing enhanced cooperation in the area of the creation of unitary patent protection', L 361/1, 2012

[10] Directive (EU) 2019/790 on copyright and related rights in the Digital Single Market and amending Directives 96/9/EC and 2001/29/EC, OJ L 130, 2019

[11] Ćatović H, 'Refusal to license Intellectual Property Rights as abuse of Dominant position in EU Competition Law: The implications of the Huawei Judgement' (Stockholm, 2015), p. 9

[12] For instance, see Käseberg in *Intellectual Property, Antitrust and Cumulative Innovation in the EU and the US*, 2012, p. 12. See also Angelov M, 'The "Exceptional Circumstances" Test: Implications for FRAND commitments from the essential facilities doctrine under Article 102 TFEU', *European Competition Journal*, 2014, p. 38-39

[13] Angelov, n. 12, p. 39

[14] Craig P, de Burca G, *EU law text, cases and materials*, (Sixth Edition OUP 2015), p. 1001

[15] For further details as to how the Commission establish the relevant market, see Commission Notice on 'the definition of relevant market for the purposes of Community competition law', COM 97/C, [1997], OJ C 372

shares or other barriers to entry.[16] Finally, the Commission must define an abuse. An abuse can be either exploitative or exclusionary in nature. A refusal to supply is an exclusionary abuse that "involves conduct whereby the dominant undertaking prevents or hinders competition on the market".[17]
Article 102 shares the common objective of competition law. It, however, differs from other areas of competition in that "Article 102 is used to protect competitors rather than the process of competition".[18] Article 102's primary goal is to protect competitors from the distortions of competition which may also have an impact on innovation because competitors may be preventing from innovating to some extent.

In terms of IP law, it encompasses several types of protection including copyrights and related rights, patents, trade secrets. With the exception of copyright rights, these rights fall under the category of industrial property.[19] They confer a set of transferable exclusionary rights that can be enforced by their owner. Globally, each type of IP form grants the owner a property right, which includes the right of exclusion. A right of exclusion gives the owner the right to reserve the commercial benefits of the protected products for himself while charging other competitors to enjoy those benefits.[20] It also governs the unlicensed reproduction and distribution of works. Its objectives are centred on meeting the challenges posed by technological advancements and a rapidly globalizing economy.[21] To that end, IP law seeks at "promoting innovation" while also "supporting the growth and functioning of competitive markets".[22] IP law can be viewed as the primary safeguard to protect incentives to innovate because companies that invest on Research and Development (hereafter 'R&D') will be rewarded in the end by the exclusive control of the product.

IP law crosses the path of competition law in several abuses, including refusal to deal, also known as refusal to supply, under the jurisdiction of Article 102. Refusal to supply is an abuse in which an undertaking in a dominant position refuses to license or supply another non-dominant undertaking. This abuse was first mentioned

[16] For more information, see Jones A, Sufrin B, *EU Competition Law: Text, cases and Materials*, (Seventh Edition, OUP 2019), p. 331 and forward.
[17] Jones and Sufrin, n. 16, p. 361
[18] Whish R, Bailey D, *Competition Law*, (Eight Edition, OUP, 2018), p. 200
[19] Pila J, Torremans P, n. 8, p. 4
[20] Pila J, Torremans P, n. 8, p. 73 and 74
[21] Pila J, Torremans P, n. 8, p. 3
[22] Pila J, Torremans P, n. 8, p. 3

by the Court of Justice of the European Union (hereafter 'CJEU') in Commercial Solvents[23] and it was later written into the Commission's Guidelines.[24] Ownership of Intellectual Property Rights (hereafter 'IPRs') does not imply a presumption of dominance, but the refusal to license it may qualify as an abuse of dominance in some exceptional cases. Because of the growing importance of IP law and IPRs in today's globalised world, the CJEU had to strike a balance between the protection of competition law and the market on the one hand, and the protection of IP law and the rights of the owners, which are enshrined in the European Union's Charter of Fundamental Rights on the other.[25] To achieve such a balance, the CJEU has developed what is known as the 'exceptional circumstances' test which aims at protecting both competition law and IP law. This means that the owner of IPRs will only be found in abusive dominance on rare occasions.

In a world where the global expansion of IPRs is causing concerns,[26] the relationship between competition law and IP law has become critical. This augmentation of patent applications, for example, exemplifies this growing significance. From 2017 to 2019, the European Patent Office (hereafter 'EPO') saw a 4.0% increase in the number of applications, with Sweden and the United Kingdom leading the way. Europe accounts for nearly half of all patent applications worldwide, accounting for 45 percent in 2019. Particularly, the digital communication sector, the medical technology sector and the computer technology sector have seen an increase in patent applications, with the digital communication field experiencing a 19.6% increase. This is unsurprising given that those three industries are the most likely to experience continuous ongoing innovations, whether those innovations are ground-breaking or not. This trend is not limited to the EU. Similar enhancements can be seen in the United States, in Japan and China.[27] Despite

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[23] C-6 and 7/73, *Istituto Chemioterapico Italiano S.p.A. and Commercial Solvents Corporation v Commission of the European Communities*, 1974, EU:C:1974:18, para. 25
[24] Commission, 'Guidance on the Commission's enforcement priorities in applying Article 82 of the EC Treaty to abusive exclusionary conduct by dominant undertakings', COM-45/7, 2009, JO C 45, paras 75-90
[25] Charter of the Fundamental Rights of the European Union [2012], OJ C 326, 2012/C 326/02, Article 17
[26] Angelov, n. 12, p. 37
[27] European Patent Office, 'Trends in patenting 2019', 2020, https://documents.epo.org/projects/babylon/eponet.nsf/0/26767BC3D0AEB95AC125852300359E0E/$FILE/epo_patent_index_2019_infographic_en.pdf, accessed the 02.02.2021; See also European Patent Office, 'Patent Index 2019, Statistics at a glance', 2020, https://documents.epo.org/projects/babylon/eponet.nsf/0/BC45C92E5C077B10C1258527004E95C0/$File/Patent_Index_2019_statistics_at_a_glance_en.pdf, accessed on 02.02.2021

the growing importance of intellectual property rights, the EU maintains a particularly protective stance toward the market. As a result, an examination of the interaction between both fields remains relevant, particularly whether the CJEU's position on the subject is appropriate in the context of a growing innovative world.

1.2. Formulation of the research questions

The goal of this thesis is to examine the response of the CJEU when dealing with a case that presents a link between refusal to supply under Article 102 and IPRs. Our goal is to understand how the 'exceptional circumstances' test applies and whether the balance established by that theory favours one of the two fields of law and, thus, whether the CJEU's approach to the 'exceptional circumstances' test within the refusal to supply in correlation with IPRs may have a significant impact on the incentives to innovate. In other words, we will look at how the Court applies the 'exceptional circumstances' test in the context of IPRs in light of refusal to supply cases. To answer such a question, we'll break it down into two sub-questions.

- What is the 'exceptional circumstances' test developed by the Court in cases of refusal to supply in the context of IPRs?
- Will the CJEU's interpretation of the 'exceptional circumstances' test, as implemented by *Microsoft* and *Huawei*, have an impact the incentives to innovate?

These questions will allow us to develop the 'exceptional circumstances' test and to demonstrate that the broadening that occurred in the *Microsoft* case may have an impact on the incentives to innovate, but such impact must be viewed with caution due to the limited application of such a development.

1.3. Delimitations

This thesis will primarily address the abuse of dominance known as refusal to supply as well as its relationship with IPRs. The author of this thesis is aware that IPRs are related to competition in a variety of ways. The guidelines on technology transfer agreements, for instance, address the relationship between IPRs and Article 101. Article 101, on the other hand, will be excluded from this thesis. This thesis also addresses the issue of refusal to supply, also known as refusal to deal. Any other abuses, even those who might have a connection with IP law, will not be examined in this thesis. Furthermore, this thesis will concentrate on European Union law. Although we will mention a portion of the US doctrine for historical purposes, we will not proceed to compare the US system to that of the European Union, nor will we examine any non-European countries' systems in the matter.

1.4. Method and bibliography

The primary goal of this thesis is to provide an analysis of the current situation concerning the relationship between IPRs and Article 102. Another goal is to determine whether the CJEU approach might have an impact on the incentives to innovate. The research methodology used to accomplish this is legal, doctrinal, and theoretical studies. To comprehend the framework and construct a discussion, legal sources will be consulted. The CJEU's case law will be mentioned because it is the method by which the EU has struck a balance between the two fields of law. The data used will consist of (1) articles of law journal focusing on the link between IP law and competition law and in particular Article 102; (2) books relating to IP law and competition law; (3) case law from Member States courts and the CJEU; (4) European and international legislation; (5) certain relevant websites and working papers**.** Working papers and articles of law journals will mostly be used to construct an analysis around the evolution of this correlation and establish a constructive critic of it.

1.5. Structure

This research will be divided into four chapters. We started with the introduction which established the research question and discussed the objectives and the methods of the thesis. Secondly, we will look at the concept of refusal to supply and how it has evolved within the EU. In this chapter, we will discuss the major cases of refusal to supply, some of which may or may not be directly related to IP law. Those cases remain, however, relevant to the subject matter, due to their significance in the development of the 'exceptional circumstances' test. We will then proceed to analyse whether the CJEU's approach of the 'exceptional circumstances' test might have an impact on the incentives to innovate and whether such impact is significant. We will finally conclude this thesis in the fourth and last chapter.

2. The development of refusal to supply by the Court of Justice of the European Union

The CJEU cases are where the ‘exceptional circumstances’ test first appears. The test has required multiple judgements in order to become clearer, as the initial ones appeared to have confused scholars and undertakings. To comprehend the evolution of the ‘exceptional circumstances’ test within cases of refusal to supply and IPRs, a brief history of the essential facilities doctrine is required (2.1). Then, we will demonstrate that, in various cases, the ‘exceptional circumstances’ test has met a development that caused its conditions to be both narrowed and broadened over time. First, the CJEU used the *Volvo v. Veng*[28] case to create some of the premises of the ‘exceptional circumstances’ test (2.2) which was later refines in *Magill*[29] and *Bronner*[30] cases (2.3). Then, in *IMS Health*[31] and in *Microsoft*[32], the CJEU had seemed to widen the scope of the test. We will also mention the *Huawei*[33] case as it contains specific circumstances regarding the interaction of IPRs and Article 102 (2.4).

2.1. Brief history of the refusal to supply and the essential facilities doctrine

By refusing to supply a product or service or to grant third parties access to its essential facilities, the undertaking may impede market competition and thus exclude competition. Fox explained that ownership of a critical facility could result in special circumstances of duty to deal, such as a “duty not to exclude and duty to

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[28] C-238/87, *AB Volvo v Erik Veng (UK) Ltd*. [1988], EU:C:1988:477
[29] C-241/91, *Radio Telefis Eireann (RTE) and Independent Television Publications Ltd (ITP) v Commission of the European Communities*, ‘Magill’, [1995], EU:C:1995:98
[30] C-7/97, *Oscar Bronner GmbH & Co. KG v Mediaprint Zeitungs- und Zeitschriftenverlag GmbH & Co. KG, Mediaprint Zeitungsvertriebsgesellschaft mbH & Co. KG and Mediaprint Anzeigengesellschaft mbH & Co. KG*, [1998], EU:C:1998:569
[31] C-418/01, *IMS Health GmbH & Co. OHG v NDC Health GmbH & Co. KG* [2004], EU:C :2004 :257
[32] T-201/04, *Microsoft Corp. v Commission of the European Communities* [2007], EU:T:2007:28
[33] C-170/13, *Huawei Technologies Co. Ltd v ZTE Corp. and ZTE Deutschland GmbH* [2015], EU:C:2015:477

treat competitors fairly and non-discriminatorily”.[34] Essential facility has been defined by the AG Jacobs in *Bronner*:

> “According to that doctrine a company which has a dominant position in the provision of facilities which are essential for the supply of goods or services in another market abuses its dominant position where, without objective justification, it refuses access to those facilities. Thus, in certain cases, a dominant undertaking must not merely refrain from anti-competitive action but must actively promote competition by allowing potential competitors access to the facilities which it has developed”.[35]

In the case of *United States v. Terminal Railroad Association* in 1912, the doctrine of essential facilities was established.[36] The phrase ‘essential facility’ does not appear in any reported judicial decision until 1977, in the case *Hecht v. Pro-Football Inc*.[37] The doctrine was introduced in the EU a few years later. The Commission was the first to use the expression in its case *Sealink/B&I*,[38] in 1992, but the CJEU has used the phrase ‘abuse of refusal to supply’ since 1974, in *Commercial Solvents*.[39]

In *Commercial Solvents*, a dominant undertaking was the main supplier of a specific chemical. It was dominant in the upstream market, which was the chemical market, and would use this chemical to produce subsequent chemicals, on a downstream market. A customer of the dominant undertaking was refused the purchases of the first chemical. The ECJ upheld the Commission’s decision and stated that the refusal to supply of the dominant undertaking had been decided to block the customer from entering the downstream market. It therefore infringed Article 102. The ECJ had put forward three factors that has led to the finding of abuse, as pointed out by Sufrin and Jones: the use of a dominant position on the upstream market to affect competition on the downstream market; the refusal to

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[34] Fox E, Gerard D, *EU competition law: Cases, texts and context*, (Edward Elgar Publishing 2017), p. 173
[35]Case 7/97 *Oscar Bronner*, [1998], Opinion of AG Jacobs, ECR I-7791, para 34.
[36] *United States v. Terminal Railroad Ass'n*, 224 U.S. 383 (1912)
[37] *Hecht v. ProFootball, Inc*., 570 F.2d 982, 992 (D.C. Cir. 1977), cert. denied, 436 U.S. 956 (1978)
[38] Commission Decision, *Sealink/B&I – Holyhead* (interim measures) (Case IV/34.174) [1992]
[39] C-6 and 7/73, *Commercial Solvents*, n. 23, para. 24 – 27

supply existing customer who wanted to compete on the downstream market; and the fact that the refusal might have led to the elimination of competition on the downstream market.[40]

Following multiple cases, in 2009, the Commission put on paper the concept of refusal to supply in its guidance.[41] The Commission began by stating that businesses have the right to choose their trading partners and dispose of their property freely.[42] This is an important point which has been reiterated in all refusal to supply cases, as it is a fundamental principle of competition law and the freedom to conduct a business.[43] The guidance of the commission outlined the 'exceptional circumstances' test and adhered to the decision of the CJEU which we will discuss further in the section below.

When an IPR holder refuses to grant a license to third parties, the CJEU denies that there is an abuse *per se*. As a result, to assess whether an undertaking has infringed Article 102 TFEU, the CJEU has developed the concept of 'exceptional circumstances test'. It is the exception to the standard of essential facilities doctrine. Due to the unique characteristics of IPR, which is considered a fundamental right, the CJEU gradually developed a specific test to apply to cases involving refusal to supply in the context of IPRs.

2.2. The birth of the 'exceptional circumstances' doctrine in *Volvo*

Volvo v. Veng[44] is a preliminary ruling that was delivered in 1988 regarding the infringement of exclusive rights which belonged to Volvo, owner of a registered design of body panels. Volvo had refused to grant a licence for the import and sale of those body panels which incorporated the design. The ECJ emphasised that obliging the owner of the IPRs to licence the supply would lead to him being "deprived of the substance of his exclusive right".[45] The ECJ added that a refusal to

[40] Sufrin and Jones, n. 16, p. 486
[41] Commission Guidance the enforcement priorities in applying Article 82, n. 24, para. 75 and following
[42] Commission Guidance the enforcement priorities in applying Article 82, n. 24, para. 75
[43] Charter of the Fundamental Rights of the European Union, art. 16
[44] C-238/87, *Volvo*, n. 28
[45] C-238/87, *Volvo*, n. 28, para. 8

license does not, *per se*, lead to an abuse of dominance.[46] However, the ECJ also stated that the exercise of the exclusive right given by the IP might result in an abuse when the conduct is liable to affect trade. In this case, the ECJ has given a few types of behaviour that might result into an abusive conduct: the arbitrary refusal to supply spare parts to independent repairers; the illegal price fixing; the cessation of production of a product for a model still in circulation.[47] The non-exhaustiveness of this list was underlined by the use of the expression ‘such as’.[48] This very short case gives very little guidance to the national courts to determine whether the refusal to license amounts to an abuse on a case-by-case basis. The lack of information has been filled by subsequent cases.

2.3. The first developments of the ‘exceptional circumstances’ test in *Magill* and *Bronner*

Magill and *Bronner* are the first cases which truly set the ‘exceptional circumstances’ test. *Bronner* clarified the terms of the test which were set in *Magill* to make clearer for companies and the Commission how to the application of said test.

2.3.1. Magill: the creation of the ‘exceptional circumstances’ test

Magill[49] concerned licensing broadcasts. Three broadcasting companies owned copyrights in their list of television programmes, and they provided their programme schedules, free of charge, but there were no comprehensive weekly listings. Magill created such a listing, but the three companies refused to license him to reproduce their weekly listing.[50] Magill claimed that such a refusal amounted to an abuse of the companies’ dominant position. The Commission agreed with his assessment and ordered the three companies to put an end to the breach.[51] The companies appealed to the General Court (hereafter ‘GC’) which dismissed the application.

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[46] C-238/87, *Volvo*, n. 28, para. 8
[47] C-238/87, *Volvo*, n. 28, para. 9
[48] C-238/87, *Volvo*, n. 28, para. 9
[49] C-241/91, ‘*Magill’*, n. 29
[50] C-241/91, ‘Magill’, n. 29, para. 10
[51] C-241/91, ‘*Magill’*, n. 29, para. 12

Following an appeal of the GC's judgement, the ECJ first established the existence of a dominant position. The ECJ then repeated *Volvo v. Veng* and stated that the exercise of an exclusive right by the owner of an IP "may, in exceptional circumstances, involve abusive conduct".[52] The ECJ emphasised that, in 'exceptional circumstances', national courts or European courts may force undertaking into issuing a license. In order words, the ECJ put forward the idea that undertakings might be obliged to comply with compulsory licensing which allows their competitors to have access to the indispensable product, in exchange for a sum negotiated. To do so, the ECJ provided four criteria to fulfil to find the refusal to supply abusive: the refusal to license prevents the appearance of a new product;[53] it cannot be objectively justified;[54] it excludes competition in the secondary market of that right, reserving that market to the dominant undertaking;[55] and the product is indispensable.[56] In the *Magill* case, the refusal to license led to the prevention of the creation of a comprehensive weekly programme guide which did not exist, the refusal was not justified, and the refusal excluded competition from the weekly television guides, reserving it to the three dominant broadcasters which were the BBC, ITP and RTE.

One recurrent criticism of *Magill* is the fact that, although the ECJ had started to give some sort of a structure regarding the circumstances that might give rise to an abuse in the case of refusal to supply and IPRs, the ECJ did not precise whether the given list was exhaustive or whether those criteria were cumulative.[57] Such a clarification has been given in the next case, Bronner, two years later.

2.3.2. Bronner: the clarification of the 'exceptional circumstances' test

In *Bronner*,[58] the ECJ did not deal with IPRs, but it provides for guidance for the application of the test and, hence, is relevant to this thesis. The facts are as follows: Mediaprint developed a home-delivery distribution system for newspapers nationwide. Bronner, a competitor, wanted access to that system as, in his opinion,

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[52] C-241/91, '*Magill'*, n. 29, para. 50
[53] C-241/91, '*Magill'*, n. 29, para. 54
[54] C-241/91, '*Magill'*, n. 29, para.55
[55] C-241/91, '*Magill'*, n. 29, para.56
[56] C-241/91, '*Magill'*, n. 29, para.56
[57] Prete L, 'From Magill to IMS : Dominant firms' duty to license competitors', *European Business Law Review*, Vol. 5, Issue 5 (2004), p. 1076
[58] C-7/97, *Bronner*, n. 30

normal postal delivery was not an equivalent. The ECJ dismissed Bronner's claim and said that the 'exceptional circumstances' test could not be successful in this instance. In this case, the ECJ developed the 'exceptional circumstances' test with four conditions, copied from *Magill*, but clearer than in said case. First, the supply of the product must be indispensable for carrying on the business in question; second, the refusal must prevent the appearance of a new product; third, it cannot be objectively justified; and fourth, it must be likely to exclude all competition in the secondary market.[59] Regarding the indispensability, the ECJ agreed with the Advocate General (hereafter 'AG') Jacobs and stated that it had to be not economically viable to "create a second system for the distribution of daily newspapers with a circulation comparable to that of the daily newspapers distributed by the existing scheme".[60] Therefore, the indispensability criteria had to be assessed based on an economic analysis of the market and competitors situation.

Bronner therefore gives us more details regarding the application of the test. Firstly, the ECJ uses "and" which demonstrates that those criteria are of cumulative nature.[61] Such a detail was not present in the *Magill* case and, hence, has brought more clarity in the applicability of the 'exceptional circumstances' test. Moreover, the ECJ moved from 'exclude all competition' to 'likely to exclude all competition', which means that there is no need for an actual exclusion and such exclusion can be hypothetical or probable.[62] This judgement focused on the indispensability criterion and gave details on how to analyse such a criterion: the Commission has to check whether it would be economically viable to create an alternative and it also have to take into consideration additional factors such as technical, legal or economic constraints.

2.4. The consolidation of the 'exceptional circumstances' test

The CJEU continued to develop the test through two major cases: *IMS health*, which concerns a pharmaceutical brick structure, and, more recently, the *Microsoft* case in which the Commission and then, the GC took major steps in the development

[59] C-7/97, *Bronner*, n. 30, para. 40
[60] C-7/97, *Bronner*, n. 30, para. 46
[61] C-7/97, *Bronner*, n. 30, para. 40
[62] C-7/97, *Bronner*, n. 30, para. 40 and 41

of the test. As we will see in the third chapter, this development has been criticized. Finally, we will briefly discuss the *Huawei* case, though it is important to note that the *Huawei* case is an exceptional case under the ‘exceptional circumstances' test due to specific circumstances.

2.4.1. IMS Health

The *IMS health* case[63] in 2004 concerned a refusal to license a pharmaceutical ’brick structure’. IMS is a company that provided data on regional sales of pharmaceutical products to pharmaceutical laboratories formatted according to the brick structure. The brick structured consisted of 1 860 bricks and a derived one of 2 847 bricks. Those structures were given free of charges to a certain group of undertakings, and it became the normal industry standard. A competitor created a marketing regional data on pharmaceutical products using a brick structure which was similar to the one used by IMS. IMS filed a complaint for the infringement of its IPRs. The German national court asked the ECJ whether an undertaking is abusing his dominant position when it refuses to grant a licence agreement for the use of a databank protected by copyright to a competitor on the downstream market (here, the marketing regional data). This question was based on the argument that the use of the 1 860 bricks structure, which was owned by IMS, was indispensable in order to allow a potential competitor to have access to the market.[64]

The ECJ repeated numerous paragraphs from either the *Magill* or the *Bronner* case. It started by stating that a refusal to license cannot, *per se*, be considered an abusive conduct.[65] It then mentioned the four cumulative criteria for the ‘exceptional circumstances’ test to apply.

First, the product needs to be indispensable. Indispensability could be analysed through the absence of any alternative solutions, whether they are less advantageous or not, and the existence of technical, legal, or economic obstacle which makes it unreasonably difficult to develop the said alternative.[66] The ECJ agreed with AG Tizzano and pointed out that it was necessary to take into consideration the high level of participation by consumers to the use of the brick structure, which had created the dependency. In this case, the number of pharmaceutical laboratories which

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[63] C-418/01, *IMS Health,* n. 31
[64] C-418/01, *IMS Health,* n. 31, para. 22
[65] C-418/01, *IMS Health,* n. 31, para. 34
[66] C-418/01, *IMS Health,* n. 31, para. 28 & 29

participated in the improvement of the 1 860 bricks structure was high. The ECJ pointed out that the pharmaceutical laboratories would have had to make exceptional efforts, both in organisational and financial matters, to “acquire the studies on regional sales of pharmaceutical products presented on the basis of a structure other than that protected by the intellectual property right”.[67] This resulted in the brick structure being find indispensable.

Second, the refusal must prevent the emergence of a new product for which there is a potential demand. The ECJ explained that this condition is to create a balancing test between the protection of IPRs and the protection of free competition.[68] The competitor must not be intended to simply duplicate the goods or services which the IPR owner offers.[69] The competitor must offer new goods or services which are not offered by the owner and for which there is a potential demand.

Third, the refusal cannot be justified. It would have been interesting for the ECJ to give more details has to what type of justifications could be accepted under the criterion, but the ECJ did not expand on this requirement in this case.

Fourth, the refusal must exclude all competition on a secondary market. The ECJ explained that the third condition needs to be assessed based on whether the competitor is able, alone or in cooperation, to set up and create an alternative product under economically reasonable conditions.[70] The ECJ mentioned that it was relevant to distinguish between the upstream market, which is the one of the indispensable products, and a secondary market, on which the indispensable product is or will be used.[71] The ECJ followed the opinion of the AG and said that the market can be either actual, potential or hypothetical as long as there is an actual demand for the future product.[72]

The case mostly repeated *Magill* and *Bronner*, but it also provided more information on how the ‘exceptional circumstances' test was applied. It did not provide more information for the criterion of objective justification, but the details given to the other criteria offers more clarity and, therefore, certainty to undertakings. Furthermore, the ECJ emphasized the importance of balancing the

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[67] C-418/01, *IMS Health*, n. 31, para. 29
[68] C-418/01, *IMS Health*, n. 31, para. 48
[69] C-418/01, *IMS Health*, n. 31, para. 49
[70] C-418/01, *IMS Health*, n. 31, para. 40
[71] C-418/01, *IMS Health*, n. 31, para. 45
[72] C-418/01, *IMS Health*, n. 31, para. 44

interests of IP law and those of competition law in relation with the condition of a new product. Such a statement will be of interest in the next chapter.

2.4.2. Microsoft

The *Microsoft* case[73] concerns a special type of IPRs which is trade secret. A trade secret is a "valuable information on technology or on any other aspect of business".[74] This case introduces developments in the 'exceptional circumstances' test. Such development could have a major impact on the application of the test and the incentives to innovate, as we will see in the next chapter, which is why it is relevant to our thesis.

In 1998, the Commission received a first complain regarding Microsoft which had refused to grant access to information needed to ensure that a competitor could create a 'work group operating systems' (WGOS) which would operate on Windows PC and server operating systems. In parallel, the Commission investigated Microsoft regarding Windows Media Player which was directly incorporated in the Microsoft system. The Commission found Microsoft in a situation of quasi-monopoly regarding the PC operating system market and stated that it had become the *de facto* standards for interoperability in WGOS. Using the 'exceptional circumstances' test, the Commission qualified the practice as an abuse of Microsoft dominant position on the operating systems market. According to the Commission, Microsoft had perpetrated two abuses: a refusal to supply, regarding the complaint, and a tying abuse, regarding Media Players. In this thesis, we will not mention the second abuse further since it is out of scope and we will focus on the first one.

Microsoft claimed that its refusal was objectively justified due to its IPRs which was explained by large investments and expenses. The Commission finds that the abuse was present because Microsoft's behaviour disrupted the level of supplies;[75] limited technical development to the detriment of consumers;[76] might lead to the elimination of competition;[77] and it could not be justified objectively.[78]

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[73] T-201/04, *Microsoft*, n. 32
[74] Your Europe, 'Trade Secret', <https://europa.eu/youreurope/business/running-business/intellectual-property/trade-secrets/index_en.htm> accessed on 20 March 2021
[75] Commission decision, *Microsoft*, (COMP/C-3/37.792), C(2004)900 final, [2004], para. 584
[76] Commission decision, *Microsoft*, n. 75, para. 701
[77] Commission decision, *Microsoft*, n. 75, para. 692
[78] Commission decision, *Microsoft*, n. 75, para. 783

Therefore, the Commission fined Microsoft for the abuse and Microsoft appealed the decision.

The GC first categorised the interoperability information as a trade secret and therefore as an IPR which made the refusal to provide the information a refusal to supply.[79] The GC reminded that although undertakings had the right to choose their business partners, there were circumstances under which the refusal to supply might qualify as an abuse under Article 102.[80] Such a statement has been repeatedly used by the ECJ in the cases stated above. The right to choose a business partners falls under Article 16 of the Charter of Fundamental Rights of the EU and, as any other fundamental rights, is subject to limitations, which is what the 'exceptional circumstances' are. The GC then briefly summarised *Volvo, Magill* and *Bronner* and the conditions for the 'exceptional circumstances' test:[81] (i) the refusal must relate to a product which is indispensable to enter a secondary market; (ii) the refusal excludes any effective competition on that market; (iii) the refusal prevents the emergence of a new product for which there is potential consumer demand; and (iv) the refusal cannot be objectively justified. The GC also insisted on the necessity to distinguish two markets which are the upstream market, with the indispensable product, and the downstream market, where the competitor will use the product to manufacture another.[82]

Firstly, regarding the indispensability criterion, due to the quasi-monopoly held by Microsoft on the operating system market, the incapacity of high degree interoperability of non-Windows WGOS would prevent them from competing on the market.[83] There was no alternative to ensure the interoperability of the systems and, therefore, the information was indispensable for Microsoft's competitors to engage in the downstream market. Regarding this criterion, the GC seemed to have analysed it reluctancy and it only pursued a "limited review" of the analysis of the Commission.[84]

Secondly, regarding the elimination of competition, the GC said that it was sufficient to show a risk of exclusion of effective competition.[85] The elimination of

[79] T-201/04, *Microsoft*, n. 32, para. 289
[80] T-201/04, *Microsoft*, n. 32, para. 319
[81] T-201/04, *Microsoft*, n. 32, para. 332
[82] T-201/04, *Microsoft*, n. 32, para. 335
[83] T-201/04, *Microsoft*, n. 32, para. 387
[84] T-201/04, *Microsoft*, n. 32, para. 379
[85] T-201/04, *Microsoft*, n. 32, para. 561 & 562

competition does not need to be effective at the time where the Commission intervenes. This does not come to any surprise since such a requirement is the standard for competition law cases. It is not about eliminating ‘all’ competition, which would give too many possibilities to the competitors to challenge a behaviour, but about the elimination of competitors which, if the abuse did not exist, would be able to compete effectively against the dominant undertaking. Moreover, regarding this criterion, the GC required the Commission to rely on accurate, reliable and coherent evidence of such a risk.[86] Such a demand comes to no surprise as well: even if the GC will accept ‘probable’ elimination of effective competition, the Commission still has to show that such an elimination might happen.

Thirdly, regarding the emergence of a new product, the GC emphasized that the emergence of a new product is not the only cause capable of prejudice to consumers. “Such prejudice may arise where there is a limitation not only of production or markets, but also of technical development”.[87] The GC pointed out that the limitation in choice will cause more damage to consumers since the competitors operating system might be better than Microsoft’s systems.[88] The change between a ‘new product’ and a ‘technical development’ is significant as it broadened the application of the test. The GC did not give further information as to what might or might not constitute a ‘technical development’. It did not provide for any limitation or for a threshold necessary in order for an innovation to constitute a ‘technical development’.

Fourthly, the GC refuted all the plea for an objective justification of Microsoft. First, Microsoft used its IPRs to justify its refusal to supply. It argued that it had done significant expenses to innovate the system. It also pointed out that an obligation to supply the license might lead to the diminishment of the incentives to innovate. The GC rejected both grounds. Regarding the first one, the GC said that accepting such justification would mean the non-application of the ‘exceptional circumstances’ in any cases and, therefore, it would lead to an absolute protection of IPRs: a refusal to license would never infringe Article 102.[89] Moreover, the GC pointed out that there was no reason to give secret technology protected under trade secret a higher level of protection than a technology which would be protected under another IPR and

[86] T-201/04, *Microsoft*, n. 32, para. 564
[87] T-201/04, *Microsoft*, n. 32, para. 647
[88] T-201/04, *Microsoft*, n. 32, para. 652
[89] T-201/04, *Microsoft*, n. 32, para. 690

which would have been disclosed to the public under similar circumstances.[90] Regarding the second plea, the GC simply said that Microsoft had not given enough evidence showing that the incentives to innovate would decrease if an obligation to license was given.

The development from ‘new product’ to ‘technical development’ is one of the most significant changes. In its reasoning, the GC considered the issue of lock-in of consumers in a system that might not be the most preferred one and it considered the fact that competitors were unable to develop upgraded software as well due to their inability to have access to the interoperability information. This foreclosure and the incapacity to develop upgraded software would have led to the absence of new technical development that might be advantageous to consumers.

2.4.3. Huawei

Huawei[91] case is quite different from the cases above due to the existence of a Long-Term Evolution (hereafter ‘LTE’) and of a licence on fair, reasonable and non-discriminatory (hereafter ‘FRAND’) terms. Indeed, Huawei was the owner of a patent regarding the method and apparatus of establishing a synchronisation signal in a communication system. It was qualified as a patent essential to the LTE standard and Huawei undertook to grant licences on FRAND terms. ZTE, a competitor, produced products that operate on the basis of the Long-Term Evolution standard without paying royalties to Huawei. Huawei and ZTE failed to reach an agreement and, seeing that ZTE kept using the LTE technology without paying royalties, Huawei brought an infringement proceeding. The German court considered that the decision would turn on whether the action brought by Huawei Technologies constituted an abuse of dominant position. The existence of a standard-essential patent (hereafter ‘SEP’) and FRAND commitments distinguishes this case from *Bronner* or *IMS Health*. When a product is protected by a patent and is chosen to be used as the standard, then it is a SEP. However, the ECJ also used the ’exceptional circumstances’ test and, therefore, an overview of the *Huawei* case is relevant.

The existence of a dominant position being undisputed, the ECJ moved onto the abuse. After reiterating the cases of *Volvo*, *Magill* and *IMS Health*, the ECJ said

[90] T-201/04, *Microsoft*, n. 32, para. 693
[91] C-170/13, *Huawei Technologies*, n. 33

that, due to the existence of a Standard Essential Patent (hereafter 'SEP'), *Huawei* had circumstances that had to be considered. The SEP rendered the use of the product *de facto* indispensable for its competitors. A standard ensures that interoperable and safe technologies are widely disseminated among companies and consumers.[92]

Huawei having undertook an obligation to grant a licence on FRAND terms, the third parties had a 'legitimate expectations' to be provided with such a license.[93] Due to the nature of the patent, it appears that the indispensability criterion is *de facto* fulfilled. In this judgement, the ECJ seemed to underline that the existence of both a SEP and FRAND terms leads to the existence of a *per se* abuse.[94] The ECJ then developed a negotiation procedure for a SEP holder to license a third party to avoid having an injunction proceeding constituting an abusive conduct. Because of the circumstances of the case, namely the existence of a SEP, the change of the criteria in the Huawei case will not impact the normal application of the test.

Since the 'exceptional circumstances' criteria were fulfilled, the Court proceeded to giving the conditions under which a SEP holder could "prevent an action for a prohibitory injunction or for the recall of products from being regarded as abusive".[95] The ECJ continued by given five steps which the SEP holder has to go through in order to prevent such action.

Firstly, the owner of the SEP must alert the infringer and give the name of the SEP infringed and detail in which way the SEP has been infringed.[96]

Secondly, the infringer must express its willingness to negotiate a licensing agreement on FRAND terms and, once he will have done so, the owner of the SEP will have to present him a written offer for said licence.[97]

Thirdly, the alleged infringer must respond to the offer, in good faith. If he decides to reject the offer, then he will have to propose a counteroffer.[98] The alleged infringer is also required to provide appropriate security in said counteroffer.

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[92] For further information, see ISO/IEC Guide 2:2004, *Standardization and related activities – General vocabulary*, 8; Directive 98/34/EC laying down a procedure for the provision of information in the field of technical standards and regulations, as amended by Directive 98/48/EC [1998], OJ L 217; Regulation (EU) No 1025/2012 on European standardisation [2012], OJ L 316

[93] C-170/13, *Huawei Technologies*, n. 33, para. 53

[94] C-170/13, *Huawei Technologies*, n. 33, para. 53

[95] C-170/13, *Huawei Technologies*, n. 33, para. 55

[96] C-170/13, *Huawei Technologies*, n. 33, para. 60

[97] C-170/13, *Huawei Technologies*, n. 33, para. 63

[98] C-170/13, *Huawei Technologies*, n. 33, para. 65 & 66

Fourthly, if the counteroffer is rejected by the SEP holder, the alleged infringer is required to provide appropriate security "in accordance with recognised commercial practices in the field". This security must include the "number of the past acts of use of the SEP, and the alleged infringer must be able to render an account in respect of those acts of use".[99]

Fifthly, when the counteroffer fails and no agreement is reached after it, both parties "may, by common agreement, request that the amount of the royalty be determined by an independent third party, by decision without delay".[100]

In conclusion, a SEP holder may avoid proceedings for its behaviour when it complies with the first three requirements above, as those are directly directed at the SEP holder. As for the alleged infringer, it will avoid IP infringement if it fulfils the rest of the conditions and if the SEP holder fails to meet its own conditions.

As we have seen, Huawei is a special case in the refusal to license in the context of IPRs. In reality, the case was mostly about the possibility for an alleged infringer to bring an action in front of a court against a dominant undertaking, holder of a SEP. Nonetheless, the mention of the 'exceptional circumstances' test in the case remains interesting as it gives us an overview of the applicability of said test to cases where there are SEP and FRAND commitments. As we have stated, the existence of a SEP automatically fulfils the indispensability criteria. Such a conclusion is not surprising since the use of the product becomes a standard: alternative products are non-existents and requiring competitors to create alternative products would be unreasonable due to the high cost of R&D and the likelihood that the consumers would switch from the SEP to the new product. Such an application of the test brings us close to a *per se* abuse. "The criteria to find a refusal to provide a license to a SEP as an abuse seems to have been set lower than for other intellectual property rights that do not enjoy 'standard-essential' status".[101]

2.5. Conclusion

In this chapter, we have seen how the refusal to supply developed throughout the different cases of the ECJ. Starting with a *Volvo* and greatly developing in *Microsoft*,

[99] C-170/13, *Huawei Technologies*, n. 33, para 67
[100] C-170/13, *Huawei Technologies*, n. 33, para. 68
[101] Ćatović, n. 11, p. 63

the current criteria for the ‘exceptional circumstances’ are as follow: (i) the product is indispensable to perform a business on a downstream market; (ii), the refusal to supply prevents the emergence of a new product for which there is a potential consumer demand or a technical development; (iii), the refusal to supply said product will likely lead to the elimination of effective competition on the downstream market; (iv), the refusal to supply cannot be objectively justified. IP rights protect innovation and, as we will see in the next chapter, the development of the ‘exceptional circumstances’ test might have an impact of this innovation. Hence, in the next chapter, we will analyse the critics of the development of the criteria.

3. The impact of the development of the ‘exceptional circumstances’ test since *Microsoft*

To develop this chapter and analyse the impact of the development of the ‘exceptional circumstances’ test on innovation with the *Microsoft* case, it is, first of all, necessary to understand what the objectives of the two fields of law in the matter are: competition law and IP law (3.1). Indeed, the ‘exceptional circumstances’ test was created because those two areas of laws and their goals were converging. We will, then, mention the criticism of the development of each criterion (3.2) before delving into the impact of the *Microsoft* case on innovation and the incentives to innovate (3.3). Finally, we will bring some necessary nuance to the aforementioned impact (3.4).

3.1. The relationship between the objectives of IP law and competition law

According to Angelov, IP rights and competition law are viewed as “diametrically” different principles: while IP law tends to form monopolies, competition law attempts to prevent them.[102] In this section, we will examine the rationale of each field of law and show that, despite presenting opposing means, both fields appear to be aiming for the same goals.

3.1.1. The rationale behind IPRs

It is acknowledged that IP systems and IP laws are enabled to protect “individual rights and interests, promote innovation, support the growth and smooth functioning of competitive markets”.[103] IP systems are a milestone for innovation because, when innovating, businesses will seek to protect their inventions so that they can benefit from them as much as possible. Innovation is recognised as a mean

[102] Angelov., n. 12, p. 38 – 39
[103] Pila and Torremans, n. 8, p. 4

of achieving the goals of competitiveness and economic development.[104] To remain competitive and profitable, businesses must remain innovative through research and development (hereafter 'R&D) projects that might eventually lead to a product protected by IP. However, R&D is frequently time-consuming and ineffective. For instance, bringing a new medicine to the market typically takes between ten and twelve years.[105] The costs and time spent by businesses to innovate rationalize the development of an IP system. IP rights are, to the owner, a "source of power"[106] that will allow them to protect their innovation. Pila explains that the goal of IP law is to give an exclusionary right of property to the owner which gives them the control over an object which can lead to considerable power.[107] It allows the owner of the IPRs to protect its innovation from competitors that might have wanted to use it on the market.[108]

3.1.2. The rationale of Article 102

In Article 3(1) TFEU, the EU was granted the exclusive competence in the establishment of "the competition rules necessary for the functioning of the internal market". This article defines a clear objective of competition law: to ensure that the internal market, which encompasses the four freedoms of movement,[109] does not encounter any distortion or disturbance.

De Burca and Craig emphasized that the primary objective is to improve efficiency which means that it will maximize consumer and result in the most efficient allocation of resources.[110] The end goal is consumer welfare, and efficiency is the means to that end. According to Nazzini, the prevalent type of welfare as an objective for competition law should be consumer welfare as it is the easiest test to apply and

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[104] Szűcs G., 'The impact of patent protection on environmental and general innovations' (Corvinus University of Budapest, 2014), p. 19. See also Ezrachi A, Maggiolino M, 'European Competition Law, Compulsory Licensing and Innovation', *Journal of Competition law and economics*, 8(3), 2012, p. 596

[105] Szűcs, n. 104, p. 13-14

[106] The expression is employed by Pila and Torremans, n. 8, p. 76.

[107] Pila and Torremans, n. 8, p. 76

[108] For a deeper analysis of the objectives of IPRs, Régibeau P, and Rockett K, 'The Relationship between Intellectual Property Law and Competition Law: an Economic Approach' in Anderman SD (ed), *The Interface Between Intellectual Property Rights and Competition Policy* (Cambridge University Press 2007), p. 508 and following

[109] The internal market of the European Union encompasses four freedoms: freedom of movement of person, capital, services and goods.

[110] Craig and de Burca, n. 14, p. 1001

it is more politically acceptable.[111] Sufrin and Jones also point out that another objective of competition law is to protect the competitive process, rather than the outcome.[112] On the same objective, competition law protects competitors, and, under Article 102, it protects smaller firms against abuses of dominant undertakings.[113] Competition law is also aiming at protecting innovation and the incentives to innovate[114] by removing the barriers of entry on a market for smaller competitors with, for instance, follow-on innovations.

3.1.3. The distinctions between the objectives of IPRs and competition law

As we have seen, some scholars have pointed out that IPRs and competition law's objectives are diametrically opposed to one another. However, the author of this thesis believes that, while partially aimed at protecting different subjects, IPRs and competition law objectives are not diametrically opposed. Both fields, on paper, thrive on protecting the internal market and both fields are aimed at protecting innovation to some extent. At first glance, competition law appears to aim to protect the market from monopolies that IPRs may create temporarily. However, as the CJEU has stated, IPRs do not inherently lead to dominant position and abuse either and, therefore, are not inherently confronting competition law. This can be reasoned by the fact that the scope of the monopoly created by the IP protection of a product does not necessarily coincide with a relevant market.[115]

Moreover, the two fields share common goals as well. Turney points out that competition law and IPRs are not constantly in conflict and both fields aim to ensure and protect the existence of optimal incentives to innovate.[116] This is also supported by Peeperkorn who insists on the complementary of both fields at a high level of

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[111] Nazzini R, *The Foundations of European Union Competition Law: The Objectives and Principles of Article 102* (Oxford University Press, 2011), p. 44–45
[112] Jones and Sufrin, n. 16, p. 31
[113] For an empirical study of said objectives, see Stylianou K. and Iacovides M. C, 'The Goals of EU Competition Law - A Comprehensive Empirical Investigation' (December 4, 2020). Available at SSRN: https://ssrn.com/abstract=3735795
[114] Stylianou and Iacovides, n. 113, p. 11
[115] Fonteijn C, Akker I, Sauter W, 'Reconciling competition and IP law: the case of patented pharmaceuticals and dominance abuse', in Muscolo G. and Tvasssi M. A, *The interplay between competition law and intellectual property: an international perspective* (Kluwer Competition Law, 2019), 411 – 426, p. 412
[116] Turney J, 'Defining the Limits of the EU Essential Facilities Doctrine on Intellectual Property Rights: The Primacy of Securing Optimal Innovation' (2005) 3 *Nw J Tech & Intell Prop* 179, p. 180

analysis since both attempts to promote and protect consumer welfare,[117] which can be improved through innovation.

Scholars believe that in order to strike a balance between competition law and IPRs, it is necessary to consider the impact that an interference or lack of an interference may have on efficiency. Indeed, IPRs are regarding as necessary for achieving efficiency.[118] Scholars distinguish two types of efficiencies: the dynamic efficiency and the static efficiency. Static efficiency "occurs when the marginal production costs are minimised or when the price consumers pay for the goods or services equate to the production cost"[119] while dynamic efficiency occurs when "undertaking have an incentive to invest in innovation" and considers the long-term consequences of a behaviour.[120] On the one hand, as Shafiq Narmiq points out, a minimum level of IPR protection is required to improve static efficiency. On the other hand, because dynamic efficiency is essential for incentivizing innovation, predictable IPR protection is required.[121]

Despite the fact that both fields have similar goals, there are differences between them. Scholars specifically point out that the methods used to achieve the objectives are diametrically opposed, and it is these methods that can cause conflict between the two fields.[122] Régibeau and Rocket also contend that both fields do not intervene at the same "stage of the economic life cycle of an asset"[123] as competition law intervenes later while IP law intervenes at the beginning of the "life" of the asset.

As a result, the author of this thesis contends that competition law and IP law cannot be said to be diametrically opposed. Nonetheless, one cannot ignore the differences that exist between them because one may create monopolies while the

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[117] Peeperkorn L, 'IP Licences and Competition Rules: Striking the Right Balance', [2003], *World Competition* 26(4), p. 528
[118] Rockett and Régibeau, n. 108
[119] Shafiq Narmiq M. M, 'Refusal to License IPRs as an abuse of dominance under EU Competition law; What is the best solution for legal certainty from a rule of law perspective?', (PhD, 2018), Lancashire University, p. 40
[120] Shafiq Narmiq, n. 119, p. 40
[121] Shafiq Narmiq, n. 119, p. 41. In this paragraph, the author quotes L. Kaplow, 'The Patent-Antitrust Intersection: A Reappraisal' [1984] 97 *Harvard Law Review* 1813
[122] Hoss E, 'Deceptive conducts before the patent office: challenges for patent law and competition law', 2018, Munich Intellectual Property Law Center, vol. 37, p. 164
[123] Rockett and Regibeau, n. 106, p. 522

other tries to dismantle them; one intervenes at the beginning of the life of a product while the other appears later. According to the 2014 Guidelines:

> "Intellectual property rights promote dynamic competition by encouraging undertakings to invest in developing new or improved products and processes. So does competition by putting pressure on undertakings to innovate. Therefore, both intellectual property rights and competition are necessary to promote innovation and ensure a competitive exploitation thereof".[124]

3.2. Criticism regarding the development of the criteria of the 'exceptional circumstances' test

As we have seen, throughout the past decades, the CJEU approach to the 'exceptional circumstances' test has shifted over the years. At first, between *Bronner* and *Magill*, it had seemed that the CJEU was inclined to tighten some of the conditions of the test. However, with the arrival of the *IMS Health* judgement and, later on, the *Microsoft* judgement, the 'exceptional circumstances' test became the 'unexceptional circumstances' test.[125] In this section, we will show how the *Microsoft* case has resulted in significant advancements in the application of the 'exceptional circumstances' test, broadening its applicability. We will also briefly analyse the 'exception circumstances' test in the Commission Guidance.

3.2.1. The development of the new product criteria

Scholars have debated the development of the condition regarding the new product as one of the main topics. This criterion had already been developed in *IMS Health* where the ECJ attached this requirement to the idea of detriment to consumer.[126] In *IMS Health*, AG Tizano defined the criterion by saying that competitors must "intend to produce goods or service of a different nature which […], answer specific consumer requirements not satisfied by existing goods or

[124] Commission Communication, 'Guidelines on the application of Article 101 of the Treaty on the Functioning of the European Union to technology transfer agreements', COM 2014/C 89/03, para. 7

[125] Angelov M, 'The unexceptional circumstances test: implications for FRAND commitments from the essential facilities doctrine under Article 102' (University of Groningen, 2013).

[126] C-418/01, *IMS Health*, n. 31, para. 48

services”.[127] This definition does not, however, bring certainty to the criterion as the concept of ‘new product’ lacks precision and leaves a great deal of discretion to the Commission and national courts to define what can constitute a ‘new product’. According to Prete, the ECJ's ambiguous language will lead to a broad interpretation of the concept of ‘new product’.[128] Because the term ‘new product’ is so vaguely defined, the author of this thesis agrees with such an analysis because it delegated responsibility for determining what constitutes a ‘new product’ to the Commission and the Courts.

In *Microsoft*, the GC went even further and modified the condition of new product to a ‘technical development’.[129] Such a ‘technical development’ “entails a mere modification of a product”.[130] According to the GC, the refusal to supply the interoperability system meant that the consumers were locked-in, as they had to stay with Microsoft in order to operate their systems. According to the GC, the circumstances of the appearance of a new product “could not be the only parameter which determines whether a refusal to license IPRs is capable of causing prejudice to consumers”.[131] The GC then introduced the ‘technical development’ criterion.

According to Michalopoulou, while the ECJ had established a good balance between the protection of IPRs and the need to safeguard and encourage genuine competition, it then disrupted that balance by imposing such a change.[132] She suggests the idea that the GC, rather than applying the condition as developed in earlier cases, bent the rules of the ‘exceptional circumstances’ test to prove that the case satisfied. Michalopoulou states that the GC approached the ‘new product’ requirement by changing the focus on technical development, which does not balance with Microsoft’s incentive to innovate it, those incentives leading, usually, to ‘breakthrough innovations’.[133] According to Angelov, the development and extension of the ‘new product’ requirement in *Microsoft* results in the suppression of a strict interpretation of the criteria, which leads to an increase for third parties to

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[127] C-418/01, *IMS Health* [2004], Opinion of AG Tizzano, EU:C:2003:537, para. 62
[128] Prete, n. 57, p. 1083
[129] T-201/04, *Microsoft*, n. 30 para. 665
[130] Angelov, n. 12 p. 55
[131] T-201/04, *Microsoft*, n. 32, para. 647
[132] Michalopoulou K, ‘Competition law in the computer age: examining Microsoft v. Commission’, (Keep Calm Talk Law, 19 January 2018) < http://kctl.uk/bd> accessed 19 April 2021
[133] Michalopoulou, n. 132

have access to IP protected products.[134] She maintains that the fear of imitation, which were present in Magill, were eliminated in Microsoft because a technical development may lack the singularity that is associated with a 'new product'.[135] The term 'technical development' can be interpreted broadly by the court or the undertakings, which might lead to the 'exceptional circumstances' test to become less unique. In particular, the absence of definition and limitation given by the GC in the *Microsoft* case increases the risks of the development of such a broad interpretation, either by the Commission in later cases or by national courts.

The expansion of the term causes the GC to give more ground to competitors in order for them to have access to essential facilities or essential products. This development not only provides more opportunities to apply the theory, but it also may lead to legal uncertainty. Indeed, the GC did not define the limits of such technical developments and appears to prefer to analyse this condition on a case by case basis rather than using a structured criterion. In *Microsoft*, the Commission has developed the test in such a narrow way that it seemed to be heading towards a case-by-case method. Such a method would be opposed to the one developed in *Magill* which had entailed the use of a single test for any abuse of refusal to supply under Article 102.[136] Legal certainty is an important pillar of the legal system, especially in sensitive fields such as competition law in which the loss of legal certainty might have consequences in the future, for example on innovation as we will see in the next subsection. Therefore, the expansion of the 'new product' criterion to a 'technical development' might cause an expansion of the use of the test which could lead to outweighing the balance which the GC struck in favour of competition law, as we will see below.

3.2.2. The development of the indispensability criteria

In *IMS Health* and precedent cases, the condition of indispensability was examined in terms of the presence of actual or potential substitution. In *IMS Health*, the ECJ states that "in order to determine whether a product or service is indispensable […], it must be determined whether there are products or services which constitute alternative solutions" [137]. According to Vesterdorf, the assessment

[134] Angelov, n. 12, p. 51
[135] Angelov, n. 12, p. 54
[136] Shafiq Narmiq, n. 119, p. 206
[137] C-418/01, *IMS Health*, n. 31, para. 28

in IMS was based on a ‘technically and objectively indispensable’ criterion.[138] Such an assessment of the indispensability criterion allowed undertakings to have some legal certainty as to how the criterion will be assessed: when there was no potential substitute to the product protected by the IPRs, then the requirement was fulfilled. However, the criterion was broadened in the *Microsoft* case. In this case, the GC stated that the interoperability information was indispensability due to its importance in the market. The GC then assessed the proeject’s ‘economic viability’[139]. As a result, the condition has shifted from one of technical indispensability, in which the Commission would have to investigate whether a potential or actual substitute exists, to one of economic indispensability, in which the Commission simply has to demonstrate that the product protected by an IPR has an important marketplace. As mentioned by Vesterdorf, it allows the commission to enjoy a margin of appreciation in order to analyse this criterion.[140] Kwok joins Vesterdorf in criticizing the condition of indispensability, claiming that it has ‘degraded’ from a stringent requirement to a requirement of competitive disadvantage.[141] The author's disapproval of the change is demonstrated by the use of the term ‘degraded’, which implies a negative development.

It should be noted that, in *Huawei,* the ECJ also held that the Commission will not ne required to prove that a product is indispensable if said product had become a SEP. Indeed, the existence of SEP creates a presumption of indispensability which reverses the burden of proof on the owner of the SEP. Such a presumption of indispensability is likely to only be applied in cases where a SEP and FRAND commitments exist, like it was in the *Huawei* case, which limits the importance of such a change.

The evaluation of economic indispensability in the Microsoft case appeared to be a one-of-a-kind case. Indeed, in *Slovak Telekom v. Commission*, the ECJ reiterated the *IMS Health* definition of the criterion: “Thus, that undertaking may be forced to give a competitor access to an infrastructure [...] only where such access is indispensable [...], namely where there is no actual or potential substitute for that

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[138] Vesterdorf B, ‘Article 82 EC: Where Do We Stand After the Microsoft Judgment?’, *Global Antitrust Review*, (adaptation of a speech delivered by the author), 2008, p.7
[139] T-201/04, *Microsoft*, n. 32, para. 357
[140] Vesterdorf, n. 138, p. 7
[141] Kwok K. H. F, ‘A New Approach to Resolving Refusal to License Intellectual Property Rights Disputes’, 2011, *World Competition Law & Economics Review*, Vol. 34, 2011, p. 264

infrastructure". [142] However, because the Slovak Telekom case does not involve an IPR, one might wonder whether the switch of the assessment in Microsoft is still be applicable to specific cases which involve IPRs and refusal to supply. The CJEU will have to clarify the applicability of the criterion in future cases.

3.2.3. Development of elimination of competition criteria

One of the main criteria in competition law is the elimination of competition. It appears in both Article 101 and Article 102 and, thus, it has come to no surprise that such condition applies in the 'exceptional circumstances' test as well. In *IMS Health* and *Magill*, the ECJ stated that the conduct is 'likely to exclude all competition' in the secondary market.[143] However, in the *Microsoft* case, the condition of eliminating all competition was changed to eliminating all effective competition.[144]

Vesterdorf observes that the change broadens the conditions for determining an abuse, making it easier for the Commission to classify a refusal to supply as an infringement of Article 102.[145] Ezrachi and Maggiolino agreed with Vesterdorf that such a change leads to the reduction of the threshold for intervention.[146] Indeed, the elimination of all competition would require the Commission to effectively wait until all competitors are driven out of the market before being able to take action. On the other hand, the elimination of effective competition allows the Commission to act before, when the competitors which, in principle, should be able to compete, are driven out of the market due to the abuse.[147] As a result, as pointed out by Vesterdorf, Ezrachi and Maggiolino, Microsoft loosened the criterion of elimination of competition. However, such a development is not surprising given that one of the CJEU's requirements for Article 102 is the elimination of effective competition. In *Hofmann-la Roche*, the ECJ defined a dominant position as "position of economic strength enjoyed by an undertaking which enables it to prevent *effective*[148] competition being maintained on the relevant market".[149] As a result, the change may

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[142] C-165/19 P, *Slovak Telekom v Commission* [2021], ECLI:EU:C:2021:239, para. 49
[143] C-418/01, *IMS Health*, n. 31, para 37; C-241/91 P., *Magill*, n. 27, para 56
[144] T-201/04, *Microsoft*, n. 32, para 332 & 563
[145] Vesterdorf, n. 138, p. 7
[146] Ezrachi and Maggiolino, n. 104, p. 603
[147] T-201/04, Microsoft, n. 32, para. 561
[148] Emphasis added
[149] C-85/76, *Hoffmann-La Roche v. Commission* [1979], ECR 461, EU:C:1979:36, para. 37. Although, the "as-efficient competitor" test is not an automatic requirement, as the ECJ stated in C-23/14, *Post Danmark II* [2015], EU:C:2015:661, para. 59

be viewed as a double-edged sword: on the one hand, it reattaches the requirement to the mere definition of a dominant position; on the other hand, it broadens the scope of applicability of the ‘exceptional circumstances' test.

3.2.4. The objective justification

The criterion of objective justification has barely been developed in the various judgements and has never been successful as well in the cases which involve both refusals to supply and IPRs. *Microsoft* was no exception to this. In this case, Microsoft argued that an objective justification could be find in the expenses incurred to innovate and in the existence of an IPR through trade secret. Microsoft contended that the existence of such a valuable product which is covered by IPRs would be sufficient to objectively justify the refusal to supply. The Commission and the GC responded that the existence of a company cannot claim the existence of such a right as an objective justification because this would invalidate the usefulness of the ‘exceptional circumstances’ test. The need to protect incentives to innovate, according to the GC, cannot be used as an objective justification.[150] The GC rejected the rest of Microsoft's arguments, which were based on the idea that a mandatory license would reduce incentives to innovate, because the company only presented vague arguments. The GC also conducted a balancing test to assess the impact of such a mandatory licensing on the incentives to innovate and the impact of the refusal to supply on competition. The GC rejected the argument after careful consideration.[151]

Vesterdorf offers two potential justifications, neither of which has been confirmed by the CJEU. In his opinion, objectives justifications might amount to the dominant undertaking relying on the IPR if such a ground is justified by the fact that the IPR will enable the undertaking to develop a new product similar to the one the third party wants to create, as long as there is a potential demand for it.[152] As a result, this justification would be based on the dominant undertaking's own preventive protection of a future new product. The second justification brought up by Vesterdorf

[150] T-201/04, *Microsoft*, n. 32, para. 702, 707, 709
[151] T-201/04, Microsoft, n. 32, para. 702 to 710 for the analysis
[152] Vesterdorf, n. 138, p. 10

would be that the IPR would lead to render the IP owner in economic difficulty due to the importance of said IPR for its production.[153]

Furthermore, the European Competition Law Annual in 2003 provided a few justifications as an example. For instance, the owner of the IPRs may refuse the access if it would "reduce the efficiency or value of […] the intellectual property right" or it would "cause the IPRs to be used uneconomically".[154] As a result, the European Competition Law Annual, like Vesterdorf, believes that the threat of economic unviability of the owners of IPRs has to be taken into account while assessing objective justifications. These are two of the potential objective justifications proposed. However, the CJEU did not confirm those.

As a result, the criterion for 'objective justification' received no development through the cases. Aside from rejecting Microsoft arguments, the GC missed the opportunity to provide for guidance for this criterion. It would be advantageous to establish a minimum standard in order to provide companies with an example of what such a criterion requires in order to be met.

3.2.5. The Commission's Guidance on the enforcement priorities in applying Article 82

In its Guidance, the Commission appears to have a broad view of the applicability of the test. The Commission gathers different types of refusal to supply under the same category, which includes refusal to supply a product, refusal to supply a license or an essential facility.[155] The Commission sets up three conditions: the product is objectively necessary, the refusal is likely to lead to the elimination of effective competition and the refusal may lead to consumer harm.[156]

Regarding the condition of objective necessity, the Commission takes into account whether there are actual or potential substitutes available to assess the indispensability of the product. Hence, the Commission will check whether an alternative source of supply is available to competitors and whether that source of supply will permit them to compete with the dominant undertaking on the

[153] Vesterdorf, n. 138, p. 10
[154] '*Panel Three: Non-Pricing Abuses*' (2003) 2003 Eur Competition L Ann 461, p. 424
[155] Commission Guidance the enforcement priorities in applying Article 82, n. 24, para. 78
[156] Commission Guidance the enforcement priorities in applying Article 82, n. 24, para. 81

downstream market.[157] This seems to be a return to the criterion which was developed in *IMS Health*: indeed, the Commission does not mention the economic viability of competitors under that point.

Regarding the second condition, the elimination of competition can be either immediate or over time and it requires the elimination of effective competition in the downstream market. To assess such an elimination, the Commission mentions a certain number of factors such as the market shares and the degree of substitutability.[158] The application of this condition does not seem to differ from the *Microsoft* criterion. It does appear to show that the Commission is eager to apply this criterion in a flexible manner, since the Commission will take into account the effect of the refusal to supply on the long term.

Finally, regarding the third condition, the Commission takes into account the consumer harm instead of mentioning the condition of new product or technical development. This means that the Commission will assess whether the refusal to supply will have negative consequences on the consumers.[159] Such consequences may occur when the emergence of a new product or a technical development is prevented by the refusal to supply. The Commission, hence, takes into accounts both the *IMS Health* case and *Microsoft* case. In particular, the Commission mentions the emergence of follow-on innovation which may be stifled by the refusal to supply.[160] The Commission then repeats cases of the ECJ: the prevention of the emergence of follow-on innovation may happen in particular when third parties do no intent to only duplicate the products offered by the dominant undertaking.

The Commission also mentions the criterion of objective justification under a subsection named efficiencies. The Commission states that it will take into account claims of dominant undertaking which stats that the refusal to supply was necessary to protect the return on investments and, hence, generate incentives to continue to invest. Such a defense was used by *Microsoft* as well but refused by the ECJ. Interestingly, efficiencies might also come from the fact that the innovation of the

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[157] Commission Guidance the enforcement priorities in applying Article 82, n. 24, para. 83 – 84
[158] Commission Guidance the enforcement priorities in applying Article 82, n. 24, para. 85
[159] Commission Guidance the enforcement priorities in applying Article 82, n. 24, para. 86
[160] Commission Guidance the enforcement priorities in applying Article 82, n. 24, para. 87

dominant undertaking will be negatively affected by the obligation to supply.[161] To apply an efficiency defense, the Commission explains that (i) the efficiencies must be a result of the conduct of the undertaking; (ii) the conduct is indispensable to realise those efficiencies; (iii) the efficiencies outweigh the negative impact of the refusal; (iv) the conduct does not eliminate effective competition.[162] Hence, while assessing efficiencies, the undertaking will have to prove that those conditions are fulfilled.

3.3. The negative impact of the broadening of the ‘exceptional circumstances’ test on innovation in theory

To answer the question, it is necessary to first understand the concept of innovation and what it entails (3.3.1). States and businesses are encouraging innovation in order to avoid falling behind other nations and businesses. We will then investigate the impact of the development of the ‘exceptional circumstances' test on the incentives to innovate, and we will see that, according to scholars, this broadening may result in a reduction of such incentives (3.3.2)

3.3.1. Brief overview of the concept of innovation

The creation of a new product, process, or method, or the creation of a significant improvement to an existing product, process, or method, has been defined as innovation.[163] As previously stated, various forms of innovation drive economic and social progress. Innovation is a “pillar in any growth strategy” due to the process of creating innovation, which includes superior manufacturing and high R&D.[164] As previously stated, innovation is central to the rationales of both competition law and intellectual property law, both of which aim to protect incentives to innovate through various means. Countries and businesses strive for the creation and sustainability of

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[161] Commission Guidance the enforcement priorities in applying Article 82, n. 24, para. 89
[162] Commission Guidance the enforcement priorities in applying Article 82, n. 24, para. 90 who quotes 30
[163] OECD, ‘The Measurement of Scientific and Technological Activities: Guidelines for Collecting and Interpreting Innovation Data: Oslo Manual, Third Edition’, prepared by the Working Party of National Experts on Scientific and Technology Indicators, OECD, Paris, para. 146. See also https://stats.oecd.org/glossary/detail.asp?ID=6865, accessed on 20 April 2021
[164] Ezrachi and Maggiolino, n. 104, p. 596

innovation, which is made possible by companies' R&D activities and expenditures. As a result, one of the influencing factors of innovation is R&D, which is motivated by the potential reward at the end.[165]

Innovation can take many forms and result in varying levels of consumer welfare. Innovation can be distinguished by what it brings to the market, i.e. its novelty, as well as the impact of the new or newly improved product on that market.[166] Following that, Sternizke differentiates between different types of innovation: first, there is incremental innovation, which "relies on minor changes in the technical base and delivers low extra benefits to customers" and thus has a low impact on consumer welfare. Second, there is a market breakthrough, which results in minor changes in the technical foundation but provides significant benefits to customers. Third, there is technological breakthrough, which provides low benefits to customers but represents a novel technology foundation; and, finally, there is radical innovation, which provides a novel technology foundation as well as high benefits to customers.[167] It is also necessary to emphasize the significance of follow-on innovation, which, as we will see, plays a role in the 'exceptional circumstances' test. Follow-on innovation is "any new technology that builds upon an existing technology".[168]

Innovation is a vital dynamic component of a competitive market and economy.[169] To maintain the incentive to innovate, companies that intend to innovate must be given the option of receiving a reward that corresponds to their R&D investments. Companies will wait for a reward for a successful project to cover the costs and reap the benefits. As a result, it is critical to safeguard that reward and, by extension, the incentives to innovate. As we stated in the introduction, innovation is a lengthy process that begins with identifying problems and defining priorities.[170]

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[165] Szűcs, n. 104, p. 19
[166] Sternitzke C, 'Knowledge Sources, Patent Protection, and Commercialization of Pharmaceutical Innovations' (2010) 39 Research Policy, p. 811
[167] Sternitzke, n. 166, p. 811
[168] Boulanger J, 'Patents and Follow-On Innovation: Evidence From Patent Renewal Decisions' (2019). Available at SSRN: https://ssrn.com/abstract=3347134, p. 7
[169] Commission, 'Guidelines on technology transfer agreements', n. 124, para. 7
[170] Szűcs, n. 104, p. 20

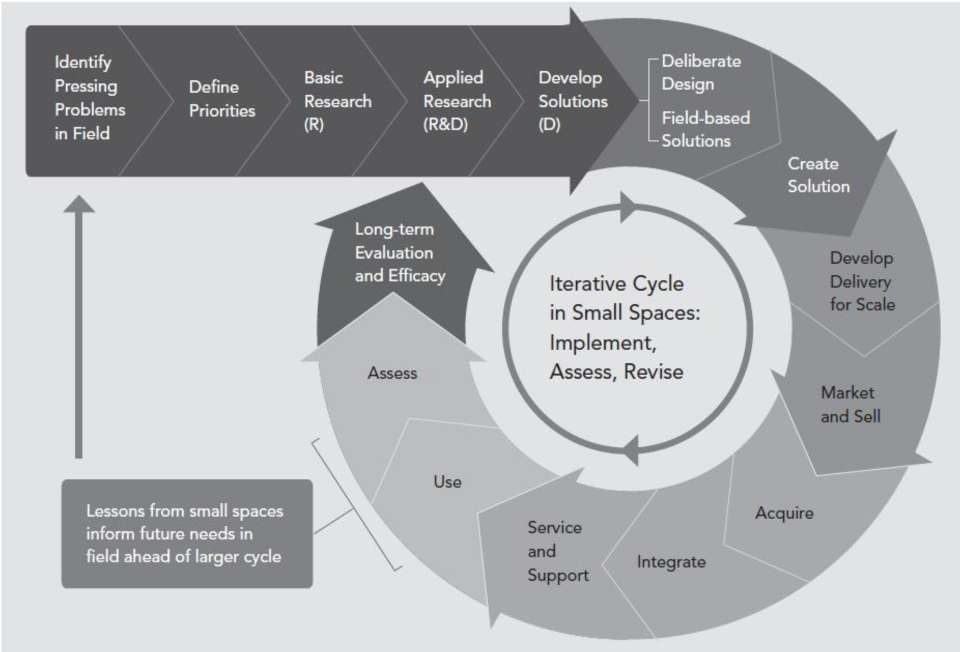

Figure 1: The cycle of innovation[171]

This graph shows how many steps innovation needs to develop and gives a glimpse of how long it might be to innovate.

3.3.2. The correlation between the 'exceptional circumstances' test and innovation

As stated in the introduction and the first chapter of this thesis, IPRs are intended to protect innovative products and services. It is the primary underlying goal of this branch of law. Although competition law achieves the same goal, it does so to a lesser extent. The primary goal of competition law is to protect the internal market and competitors, which may jeopardize innovation, as the broadening of the 'exceptional circumstances' test may imply.

Owners of IPRs have the right to exclude others. A right like this has a "direct positive impact on the incentives to innovate".[172] Indeed, given the high costs of R&D, innovators will expect a minimum level of protection to preserve their rewards and allow them to cover those expanses when the innovation reaches the market. As previously stated, companies that innovate expect to be compensated for their high

[171] Source: Szűcs n. 104, who takes the figure from Smith and Petersen, 2011
[172] Ahlborn C, Evans D, Padilla A, 'The Logic & Limits of the 'Exceptional circumstances test' in Magill and IMS', *Fordham International Law Jorunal*, 2004, Volume 28, Issue 4, p. 1130

levels of investment, which are both costly and risky.[173] Ahlborn, Evans, and Padilla go on to give a few examples of the costs associated with R&D: a new drug, for example, would cost $800 million.[174] This explains why IPR protection is important for protecting innovation and why IPRs should only be overturned in exceptional circumstances. However, broadening the criteria and, as a result, expanding the applicability of the 'exceptional circumstances' test may reduce the incentives to innovate.

The expansion of the ‘exceptional circumstances’ test may discourage businesses from innovating. Lévêque mentions that companies and individuals who invest will face uncertainty because they will not know in advance whether their IPR will be upheld or eroded by the authorities.[175] They will be unable to accurately predict the return on their investments. This increased legal insecurity reduces incentives and, as a result, R&D efforts.[176] Uncertainty can have a significant impact on innovation. Indeed, if a product is innovative, the company will use it to recoup its investment. To do so, they will use their right to exclude conferred by their IPRs to gain a monopoly on the market for the aforementioned product. However, with the expansion of the ‘exceptional circumstances’ test, the company may not be certain that they will be able to enjoy that monopoly and may not be able to cover the costs of R&D. Indeed, other companies will try to claim that their product is an essential product that must pass the test. This logic leads us to the second point: the free rider issue.

An analogy with the free rider problem, a social theory that applies to public goods, could be useful.[177] Indeed, if the ‘exceptional circumstances’ test is widened to the point where it becomes ‘unexceptional’,[178] it is possible that companies would

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[173] Ahlborn, Evans and Padilla, n. 172, p. 1131
[174] Ahlborn, Evans and Padilla, n. 172, p. 1131
[175] Lévêque F, ‘Innovation, leveraging and essential facilities: interoperability licensing in the EU Microsoft case', World Competition, 28(1), (2005), p. 80
[176] Lévêque F, n. 175, p. 80
[177] The free rider problem is, in social science, ‘free riders are people or firms that consume a public good without paying for it”. See Sailor Academy, ‘Principles of Microeconomics : Market Failure’. p. 2 Archived 19 March 2013, https://resources.saylor.org/wwwresources/archived/site/wp-content/uploads/2012/06/ECON101-3.2.pdf. The free rider problem was also mentioned in Ahlborn C., Evans D., Padilla A., n. 172, p. 1131: “Without this right, people would tend to wait for others to incur the costs and risks of innovation and then free ride on the resulting creations”.
[178] Angelov, n. 125

prefer not to spend money on innovating, because, as previously stated, R&D expenses can run into the hundreds of millions of dollars. Companies would then wait for another company to make an innovation before claiming it under the 'exceptional circumstances' test. The goal of a patent or other IPR is to promote innovation by granting the right to exclude, which entails excluding 'free riders'.[179] As Turney notes, it would be "irresponsible to endorse a system that allowed exploitation by free-riders".[180] He goes on to say that a policy that allows equal conditions for competitors and thus allows free riders will be detrimental to dynamic efficiency and innovation. According to Turney, this would result in "damage to the international competitiveness of the European Union".[181] Thus, Turney appeared to claim that the free-rider theory would impede merit-based competition, which is a legitimate course of action for a company.[182] Allowing free riders to engage in their behaviour may reduce companies' willingness to innovate, as other companies would easily benefit from their efforts and expenses. This could be accomplished by broadening the 'exceptional circumstances' test.

Furthermore, some authors, such as Shafiq Narmiq and Angelov, are concerned that the CJEU's current approach to developing the test will result in a presumption of illegality in cases involving IPRs. In the innovation sector, such a presumption may harm companies' incentives to innovate.

Angelov argues that switching to a presumption of illegality and, thus, a presumption of legality of the undertaking's compulsory licence to its competitors would be unreasonable.[183] Indeed, instead of the competitor having to prove that the product meets the 'exceptional circumstances' test by being indispensable and meeting the criteria, the dominant undertaking would have to prove that its own product does not meet those criteria. Such a presumption would "gives license seekers power to go above their position in the market".[184] As a result, Shafiq Narmiq observes that, while the dominant position is weakened, even if it is based on merit,

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[179] Telyas D, *The interface between competition law, patent and technical standards*, (Kluwer Law International 2014), p. 206
[180] Turney, n. 116, p. 181
[181] Turney, n. 116, p. 181
[182] Anderman SD. and Schmidt H, 'EC Competition Policy and IPRs', in Anderman (ed), *The Interface Between Intellectual Property Rights and Competition Policy* (Cambridge University Press 2007) p. 38
[183] Angelov, n. 12, p. 56
[184] Shafiq Narmiq, n. 119, p. 256

the position of the competitors is strengthened. This shift would have a significant impact on breakthrough innovations, which frequently necessitate a significant amount of R&D.[185] Breakthrough innovations are those that necessitate significant R&D expenditures. Shafiq Narmiq agrees with Angelov and adds that a presumption of illegality of the refusal to supply protects IPRs by preserving incentives to innovate. As a result, both authors believe that such a stance is the better approach when it comes to the rule of law.[186]

According to those authors, the development of the ‘exceptional circumstances’ test may distort the incentives to innovate due to uncertainty and the fear of losing the rewards conferred by the right to exclude, which is entailed in IP protection. Such a development appears to diminish the importance of the goal of innovation and gives more protection to competitor protection. However, in practice, this theoretical analysis necessitates some balancing.

3.3.3. The impact of *Huawei* on the refusal to supply in the context of IPRs

As we stated in the subsection pertaining to this case, Huawei presents specific circumstances, namely the existence of a SEP and the existence of FRAND commitments. Nonetheless, the application of the ‘exceptional circumstances' test to this case provides an opportunity to examine how the CJEU will deal with future cases of refusal to supply in the context of IPRs when a SEP exists.

As previously stated, in the context of a SEP, the ECJ has granted the SEP product a presumption of indispensability. According to Petit, the ECJ has agreed that SEPs supplemented by FRAND agreements generate unique conditions. These circumstances explain the relaxation of antitrust liability rules.[187] According to the author of this thesis, such a presumption is justified by the fact that the existence of the SEP makes it impossible, or at least economically unviable, for competitors to manufacture a substitute in order to enter a downstream market. This impossibility is due to excessive technical and economic barriers, which would make product development difficult. Furthermore, the ECJ did not go into specifics about the other

[185] Angelov, n. 12, p. 52
[186] Shafiq Narmiq, n. 119, p. 256
[187] Petit, N, *Huaweï v. ZTE: Judicial Conservatism at the Patent-Antitrust Intersection*, CPI Antitrust Chronicles, Volume 10, Number 2, October 2015, p. 3

requirements of the 'exceptional circumstances' test, such as the next product or the elimination of competition, which were not even mentioned. The ECJ appears to be taking a flexible and forgiving approach to the test in the context of the existence of a SEP: not only are those two requirements not being examined, but the presence of a presumption of indispensability makes the presence of an abuse much more likely than in any other case.

The *Huawei* case, on the other hand, is extraordinary, and the developments witnessed in that case are unlikely to have an impact on the normal application of the ‘exceptional circumstances' test. It is exceedingly improbable that the CJEU will ever apply such an indispensability assumption to products covered by IPRs that are not SEPs. Furthermore, the complete examination of the procedures taken by the owner of a SEP and the third-party requesting access to said SEP protects the owner of the SEP as well. Indeed, if the owner follows the methods outlined in the third section of the second chapter of this thesis, it will avoid accountability under Article 102 and will not be abusing its dominant position.

Therefore, the *Huawei* case will only have a minor impact on the ‘exceptional circumstances’ test as the presumption will only be applied in cases in which SEP and FRAND commitments exist.

3.4. The limited impact of the broadening of the ‘exceptional circumstances’ test on innovation in practice

As previously stated, the establishment of the ‘exceptional circumstances' criteria by Microsoft drew a lot of criticism, leading to the belief that the modifications brought about by the ECJ would be damaging to the incentives to innovate. One must, however, bring nuances to such a conclusion. In this subsection, we will investigate whether the development of the test has an effect on the incentives to innovate (3.4.1); we will then look at a recent case that demonstrates that the ECJ may not be so keen on imposing a loose interpretation of the ‘exceptional circumstances' test by looking at the Case C152/19 P, *Deutsche Telekom* case (3.4.2)

3.4.1. The nuances of the critics of the development of the

‘exceptional circumstances’ test

By examining the actual application of the test, one can nuance the arguments given in the first part of 3.3. In practice, the ‘exceptional circumstances' test is rarely employed in cases at the European level, which leads us to question whether the revisions would have a significant influence on innovation.

As stated in this thesis, the principle of necessary facilities originated in the United States. The Supreme Court of Justice stated in the *Trinko* case that the ability to charge monopolistic rates during a dominance that has been created with the ownership of an essential facility is what “induces risk taking that promotes innovation and economic growth”.[188] Taking the opposing side of this argument, if competition authorities intervene too frequently and too quickly in cases involving IPRs, it may reduce companies' incentives to develop. Ezrachi and Maggiolino support this viewpoint, questioning whether expanding the test would have such an impact given the modest number of cases involving refusal to deliver an intellectual property license. According to Ezrachi and Maggiolino, the impact would be minimal or non-existent as long as there is no perception of over-enforcement, which is what “chills innovation.”[189] As a result, while the widening of the test may not have as large of an influence on innovation as other scholars believe, it may be jeopardized if the Commission is tempted to intervene more and enforce the test in many circumstances. The Commission's Guidance Paper demonstrates the Commission's preference for a less stringent interpretation of the ‘exceptional circumstances’ test.[190] Although the Commission has not overly implemented the standard, according to Ezrachi and Maggiolino, the Guidance may have an impact on the level of intervention and enforcement at the national level. In practice, however, the Commission and national courts do not appear willing to enforce those papers in this manner.[191] In practice, however, the Commission and national courts do not appear willing to enforce those papers in this manner. Thus, it appears that it is the over-application of the criteria, rather than its existence, that will freeze innovation.

[188] *Verizon Communications Inc v Law Offices of Curtis V. Trinko LLP*, 540 US No. 02-682 [2004], section III, para. 1, p. 7.
[189] Ezrachi and Maggiolino, n. 104, p. 610
[190] Ezrachi and Maggiolino, n. 104, p. 610
[191] Ezrachi and Maggiolino, n. 104, p. 610

While competition law protects follow-on innovation, patents “have a strong blocking effects on follow-on innovation”.[192] This brings us to our next point. The often-criticized criterion of 'technological development' also necessitates some subtlety. By establishing a condition of ‘new product' in *IMS Health*, which later became a criterion of ‘technical development’ in *Microsoft*, the CJEU considered the impact of innovation by evaluating prospective ‘follow-on’ developments. A follow-on innovation is a new technology that builds on an existing one.[193]

While the Commission appears to be adopting a new ‘general evaluation of harm to innovation’ in merger instances such as *Dow/DuPont*, the ‘technological evolution’ under the ‘exceptional circumstances’ test demonstrates that the Commission and the GC are increasingly interested in assessing the impact of patents on future innovation.

Although merger and dominance are two distinct subjects of competition law, it might be interested to draw a parallel between those two: in the merger case Dow/DuPont, the Commission decided that the merger would have “adverse effects on future efforts to innovate” [194] and it was “a merger between important rival innovators is likely to lead to a reduction in innovation”. [195] In the Microsoft case, the switch from ‘new product’ to ‘technical development’ was encouraged by the fact that the interoperability data was “claimed to be necessary for future innovation”.[196] As a result, in both cases, and in both sectors of law, the Commission has placed an emphasis on determining whether the merger and the misuse of refusal to supply will influence future efforts to innovate and, as a result, have an impact on follow-on innovation. The concept of ‘technological development’ could be the first step toward a more general assessment of harm to innovation in circumstances involving both refusals to supply and IPRs.
The conclusion of this argument is that, while it appears that the CJEU and the Commission place a premium on competitor protection, such protection may also lead to additional innovation. Thus, in this regard, broadening the ‘exceptional

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[192] Boulanger, n. 168, p. 26
[193] Boulanger, n. 168, p. 8
[194] Todino M, van de Walle G, Stoican L, ‘EU Merger Control and Harm to Innovation: A long walk to freedom (from the chains of causation), 2018, Antitrust Bulletin XX(X), p. 11
[195] Todino, van de Walle and Stoican, n. 194, p. 11
[196] Costa-Cabral F, *Innovation in EU competition law : the resource-based view and disruption*, The Jean Monnet Program, Working paper, p. 25

circumstances' test takes into account a broad category of innovation known as follow-on innovation.

As a result, whereas the CJEU emphasized IP and innovation in its earlier decision, it has gradually shifted the weight of the balance. It currently appears to prioritize internal market and competition protection at the expense of IPRs and innovation. However, broadening the test could have a good impact: “competition will be encouraged in ancillary markets to that of the intellectual property right, bringing the associated benefits of increased choice, lower prices, and higher quality”.[197] Angelov, on the other hand, distinguishes between the influence on static and dynamic efficiency and claims that, while mandatory licensing orders will increase static efficiency, they could hurt dynamic efficiency by limiting incentives to develop.[198] Angelov goes on to say that the expansion and broadening of the "exceptional circumstances" test is likely to lead to a rise in license refusals.[199]

3.4.2. In practice, a return to a strict interpretation of the ‘exceptional circumstances’ test?

The CJEU issued its decision in the *Slovak and Deutsche Telekom* case on March 25th, 2021. The case was an appeal against a 2018 GC decision. The GC partially invalidated the Commission's ruling regarding the two companies' violation of Article 102 between 2005 and 2010: at the time, Slovak Telekom gave unbundled access to its local loop under specific restrictions that were judged disproportionate. Although the GC decreased the amount of the fine, it denied the applicants' request for annulment. Both Deutsche Telekom and Slovak Telecom filed appeals against the decision, but we will focus on the first because it carries more interest for this thesis. The applicants approached the ECJ with the idea of implicit refusal to supply: while access to basic services was permitted in theory, the unjust contract terms made it impossible in practice.

This case does not, in and of itself, concern IPRs. However, as AG Saugmandsgaard Øe noted out in his conclusion, this case provided an opportunity

[197] Turney, n. 116, p. 197
[198] Angelov, n. 12, p. 51
[199] Angelov, n. 12, p. 55

to clarify the *Bronner* criteria.[200] As a result, the consequence of the judgment may have ramifications for how the ECJ and the Commission will apply the ‘exceptional circumstances’ test in IPR and refusal to supply matters in the future. As a result, this case is relevant to this thesis.

The CJEU followed, globally, the opinion of the AG and dismissed the appeal. Therefore, we shall put under the spotlight both the opinion and the judgement. Throughout his opinion, the AG insists on the idea that the scope of the ‘exceptional circumstances’ test has to be interpreted strictly “to preserve the effectiveness of Article 102”.[201] In its judgement, the CJEU repeats the AG. Indeed, the CJEU stated that “if access to a production, purchasing or distribution facility were allowed too easily there would be no incentive for competitors to develop competing facilities”.[202] Such a remark supports the view of authors such as Turney and Angelov, who have repeatedly stated that broadening the ‘exceptional circumstances’ criteria would be detrimental to innovation because it would damage the efficiency and scope of IPRs. Such an extension would also be detrimental to investments if investors were forced to share the advantages derived from their own investments “at the mere request of its competitors.”[203] The CJEU went on to compare the unreasonable refusal to provide to a “genuinely tight grip on the market concerned” implying that the CJEU will continue to apply the ‘exceptional circumstances’ test strictly.[204]

Concerning the applicants' claim of implicit refusal to supply, the AG points out that broadening the test to include the theory of ‘implicit’ refusal to supply would significantly weaken the effectiveness of Article 102. It could have a “scope the elasticity of which is potentially unlimited”.[205] He claims that the CJEU has consistently declined to apply the *Bronner* criteria to other types of abuses, such as margin compression in *Telia Sonera Sverige*.[206] The CJEU concurred with the AG, stating that “where a dominant undertaking gives access to its infrastructure but

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[200] Cases C-152/19 P and C-165/19 P, *Deutsche Telekom AG (C-152/19 P), Slovak Telekom a.s. (C-165/19 P) v European Commission*, 2020, EU:C:2020:678, Opinion of AG Saugmandsgaard Øe, para. 54
[201] Cases C-152/19 P and C-165/19 P, Opinion of AG Saugmandsgaard Øe , n. 200, para 55
[202] Case C-152/19 P, *Deutsche Telekom AG, Commission,* 2021, EU:C:2021:238, para. 47
[203] Case C-152/19 P, *Deutsche Telekom*, n. 202, para. 47
[204] Case C-152/19 P, Deutsche Telekom, n. 202, para. 48
[205] C-152/19 P, AG Opinion, n. 200, para. 84
[206] C-152/19 P, AG Opinion, n. 200, para. 87

makes that access subject to unfair conditions, the conditions of the judgment in Bronner do not apply".[207] The existence of an implicit refusal to supply would have greatly expanded the opportunities for competitors to gain access to facilities or, in our hypothetical scenario, a product protected by IPRs.

Although not based on IPRs, the decision appears to indicate that the CJEU's approach in *Microsoft* was an exceptional case and that the CJEU will return to the criteria stated in *Bronner* and *IMS Health* when faced with a refusal to provide case. The ECJ underlined in this decision that the 'exceptional circumstances' criteria must be scrupulously applied in order to preserve the effectiveness of Article 102. A broad application of the test would have undermined its effectiveness. Therefore, it seems that the CJEU might return to the balance that it had first established in the *IMS Health* judgement and, instead of giving more weight to the preservation of competitors, shift the balance back towards the protection of innovation.

3.5. Conclusion

In this chapter, we have seen that the development of the 'exceptional circumstances' test has been largely widened by the CJEU's application of it, notably in the *Microsoft* case. Scholars have been relatively critical of such an expansion, leading them to believe that the CJEU has switched the balance of the test towards competition law to the detriment of IP law and innovation. As mentioned by Turney, the issue with the current approach of the CJEU and the Commission is that "while in the early days IP rights logic appeared to prevail over competition law concerns, lately the antitrust logic seems to be on top".[208]

However, this stand must be nuanced by the fact that, so far, the Commission has not overused the 'exceptional circumstances' test in the domain of IPRs. Moreover, a few authors mention the benefits of the widening of the test, such as Turney who writes that "in circumstances where the essential facility has become so entrenched that it amounts to a consumer standard, allowing access may prove to be the only way to refresh the market with competitive practices".[209]

[207] Case C-152/19 P, *Deutsche Telekom*, n. 202, para. 53
[208] Turney, n. 116, p. 21
[209] Turney, n. 116, p. 197

4. Conclusion

In the introduction, we questioned whether, in the case of refusal to supply in relation to IPRs, the CJEU prioritized market and competitor protection over innovation protection. This question prompted an examination of how the CJEU implements the ‘exceptional circumstances’ criteria in the context of IPRs in the context of refusal to supply. To answer this question, the author of this thesis researched the history of the CJEU's ‘exceptional circumstances’ test. Then, we examined the CJEU's approach to the test in the *Microsoft* case, as well as the implications of those changes on the incentives to innovate. Such an examination would have shown whether the CJEU prioritizes the preservation of innovation or the protection of rivals. Our response to that final question will be nuanced.

As the CJEU has stated in various judgments, refusing to supply an IPR to a third party does not constitute an abuse under Article 102. In those instances, the criterion is that the undertaking is not required to give a license to third parties. Only when the elements of the CJEU's ‘exceptional circumstances’ test, which it defined in its decisions, are met will such a refusal to supply constitute an abuse. The 'exceptional circumstances' criteria was developed early on, in 1994, in the *Magill* case, and has continued to evolve in subsequent cases, most notably in *Bronner*, *IMS Health*, and Microsoft. Multiple elements must be met in order for competitors to allege that a refusal to deliver a product or service covered by an IP was abusive. *IMS Health* criteria are as follows:

1. The product is indispensable to perform a business on a downstream market;
2. The refusal to supply prevents the emergence of a new product for which there is a potential consumer demand;
3. The refusal to supply the product will likely lead to the elimination of all competition on the downstream market;
4. The refusal to supply cannot be objectively justified.

If all four conditions are met, the refusal to supply will be considered an abuse, and the owner of the IPRs will be required to give a license. However, there is a lack of details in those conditions, such as an explanation of what constitutes a ‘objective justification’. In *Huawei*, we also stated that it appears that there are additional possibilities for what constitutes ‘exceptional circumstances’, depending on the facts of the case (in *Huawei*, the circumstances were the existence of a SEP and FRAND commitments).

The authors argue that finding a balance between the objectives of the European Union's competition policies is difficult. When two different types of policy collide on the same terrain, it seem inevitable that one will triumph over the other. [210] The CJEU is attempting to strike a balance between the objectives, but the weight has shifted from innovation protection to competitor protection in *Microsoft*.

In the third part of this thesis, we examined the evolution of *Microsoft's* criteria for the 'exceptional circumstances' test before determining if such evolution had any effect on the incentives to innovate. This chapter's conclusion is nuanced. As we have shown, extending the criteria in *Microsoft* may have an impact on the incentives to develop because it appears to provide competitors greater authority in order to gain access to IPR-protected products and services. IPRs stimulate incentives to innovate because corporations are guaranteed an exclusive right on the protected product as a reward for their commitment to innovate. The huge costs of R&D can explain such an expected return. As a result, conceding more territory to their competitors may have resulted in a reduction in incentives to innovate. However, as we have shown, nuance is required to reach this conclusion. Indeed, as Ezrachi and other authors have pointed out, this breakthrough may have such an influence only if the Commission, the CJEU, and national courts are eager to use it. So yet, there have only been a few examples on the subject. Furthermore, it appears that the *Microsoft* case was a unique instance due to the facts of the case. This might mean that the changes brought in *Microsoft* will not be applied in other cases and the ECJ might go back to the conditions of the *IMS Health* case.

When the refusal to supply is found abusive, companies will be required to grant a license, which is "a compromise between the interests of innovators and society as a whole"[211]. Lisnic adds that the compulsory licensing brings the issue of the

[210] Turney, J., 'Defining the limits of the EU essential facilities doctrine on intellectual Property Rights: the primacy of securing optimal innovation', Northwestern Journal of Technologies and Intellectual Properties, 3(2), p. 180
[211] Cucer Lisnic I, 'The Theory of Essential Facilities: The Principle of Access to invention in Case of Abusive Refusal to License' (2015) 22 Lex ET Scientia Int'l J 52, p. 69

“prevalence of competition law” on IP law “with major consequence of legal uncertainty”.[212]

[212] Cucer Lisnic, n. 211, p. 69

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