THE UPC AGREEMENT AND LIABILITY RULES

The Entitlement and Enforcement

LL.M Lisa van Dongen, author
28 August 2018

Department of European and International Public Law of Tilburg University
Assistant Professor Maurice Schellekens, supervisor

CONTENTS

INTRODUCTION 3

PART I. PATENTS AS AN ENTITLEMENT 5

I.1. The Allocation of Entitlements 5
I.2. The Peculiar Case of Patents 7
I.2.1. The reasons 7
I.2.2. The entitlement 8
I.3. The UPC Agreement 11
I.3.1. The UPC Agreement in general 11
I.3.2. The unitary patent 13
I.3.3. Granting and validity 14
I.4. The Unitary Patent as an entitlement 17
I.4.1. The entitlement under the UPC 17
I.4.2. The UPC and other legal sources 19

PART II. PATENT ENFORCEMENT 22

II.1. The Choice of Rules 22
II.1.1. Enforcement under the framework 22
II.1.2. Property rules vs liability rules 24
II.2. Enforcement by Whom? 26
II.3. The Limits to Enforcement 31
II.3.1. The objectives of the UPC in patent enforcement 31
II.3.2. The UPC and rule one 32
II.3.3. The UPC and rule two 35

PART III. AN ANALYTICAL SUMMARY 37

III.1. The Entitlement, Rule Two and Other Peculiarities 37
III.1.1. The entitlement 37
III.1.2. A rule-two remedy 39
III.1.3. Peculiarities 40

CONCLUSION 40

INTRODUCTION

Even though the patent system has been around for quite some time, it seems some inefficiencies persist in addition to the new ones that have emerged over time.[1] A few of the factors that are causing problems are the ever-expanding number of applications reaching patent offices every year, as well as the patent offices' pro-patent tendencies.[2] This is exacerbated by the increased emphasis on the exclusivity and the somewhat misleading definition of intellectual 'property' in both law and judicial enforcement.[3] Unfortunately, legislative intervention is either lagging, or cannot effectively mitigate these inefficiencies for several reasons.[4] Arguably the most important reason is that innovation comes in different flavours owing to significant differences between industries, hence a 'one-size-fits-all' solution would be to its detriment.[5]

Many legal scholars and economists have argued that inefficiencies in patent systems could be largely mitigated by courts through remedies.[6] If afforded enough judicial discretion to do so, courts could tailor remedies to the specific situation before them to allow for an appropriate balance of the interests of parties that is also conducive to innovation, thereby creating a healthier patent system.[7] One of the possibilities explored by legal scholars and economists is the potential of employing liability rules more in judicial enforcement of patents.[8] Liability rules are receiving more attention as the concern for negative effects of the inefficiencies in patent law for innovation is growing. It is, therefore, worthwhile to look at an existing legal framework to assess the ability of courts to use liability rules as a tool. This thesis aims to do so by analysing the Agreement on a Unified Patent Court (hereinafter: UPC Agreement), which came about in part to mitigate the current segregated judicial practice in the EU in the area of patents.[9] The unitary patent system is believed to increase the efficiency of enforcement and decrease its costs.[10] Unfortunately, this also makes the internal market more attractive

---

[1] See, for instance, Dan L. Burk and Mark A. Lemley, *The Patent Crisis and How the Courts Can Solve It* (University of Chicago Press, Chicago 2009); James Bessen and Michael J. Meurer, *Patent Failure: How Judges, Bureaucrats, and Lawyers Put Innovators at Risk* (Princeton University Press, Princeton 2008); Reto M. Hilty, 'The Role of Enforcement in Delineating the Scope of IP Rights' [2015] Max Planck Institute for Innovation and Competition Research Paper No. 15-03, and; Alexander Peukert, 'Intellectual Property as an End in Itself?' (2011) E.I.P.R. 33 67.

[2] Clement Salung Petersen, Thomas Riis and Jens Schovsbo, 'The Unified Patent Court (UPC) in Action' in Rosa Maria Ballardini, Marcus Norrgård and Niklas Bruun (eds), *Transitions in European Patent Law: Influences of the Unitary Patent Package* (Wolters Kluwer, 2015), 39.

[3] Annette Kur and Thomas Dreier, *European Intellectual Property Law* (Edward Elgar Publishing 2013), 7; Reto M. Hilty, 'The Role of Enforcement in Delineating the Scope of IP Rights' [2015] Max Planck Institute for Innovation and Competition Research Paper No. 15-03, 4.

[4] See, for instance, John M. Golden, 'Principles for Patent Remedies' (2010) Texas Law Review 88 505; Reto M. Hilty, 'The Role of Enforcement in Delineating the Scope of IP Rights' [2015] Max Planck Institute for Innovation and Competition Research Paper No. 15-03.

[5] Dan L. Burk and Mark A. Lemley, *The Patent Crisis and How the Courts Can Solve It* (University of Chicago Press, Chicago 2009), 38; James Bessen and Michael J. Meurer, *Patent Failure: How Judges, Bureaucrats, and Lawyers Put Innovators at Risk* (Princeton University Press, Princeton 2008), 10-16; Reto M. Hilty, 'The Role of Enforcement in Delineating the Scope of IP Rights' [2015] Max Planck Institute for Innovation and Competition Research Paper No. 15-03, 7-8.

[6] See, for instance, Dan L. Burk and Mark A. Lemley, *The Patent Crisis and How the Courts Can Solve It* (University of Chicago Press, Chicago 2009), 104-6; Reto M. Hilty, 'The Role of Enforcement in Delineating the Scope of IP Rights' [2015] Max Planck Institute for Innovation and Competition Research Paper No. 15-03, 10.

[7] Christina Bohannan and Herbert Hovenkamp, *Creation without Restraint: Promoting Liberty and Rivalry in Innovation* (Oxford University Press, New York 2012) 48-54; Piere Larouche and Nicolo Zingales, 'Injunctive Relief in FRAND Disputes in the EU - Intellectual Property and Competition Law at the Remedies Stage' (2017) TILEC Discussion Paper No. 2017-004.

[8] See, for instance, Daniel Krauspenhaar, *Liability Rules in Patent Law: A Legal and Economic Analysis* (1st edn, Springer-Verlag Berlin Heidelberg, 2015); Martin Husovec, *Injunctions against Intermediaries in the European Union: Accountable but not Liable?* (Cambridge University Press, 2017), 25-33; Daniel A. Crane, 'Intellectual Liability' (2009) 88 Tex. L. Rev. 253.

[9] Rosa Maria Mallardini, Marcus Norrgård and Niklas Bruun, 'European Patent Law: The Case for Reform' in Rosa Maria Ballardini, Marcus Norrgård and Niklas Bruun (eds), *Transitions in European Patent Law: Influences of the Unitary Patent Package* (Wolters Kluwer, 2015), 9.

[10] Kelli Larson, 'Enforcement: Legal Implications of the European and Unitary Patent Systems for Non-Practicing Entity Patent Enforcement' in Rosa Maria Ballardini, Marcus Norrgård and Niklas Bruun (eds), *Transitions in European Patent Law: Influences of the Unitary Patent Package* (Wolters Kluwer, 2015), 149, 157.

to phenomenon such as patent trolls or "bullying" of small and medium enterprises (hereinafter: SME) by larger businesses.[11] With the UPC Agreement close to entering into force, it seemed like a good time to look at this particular legal instrument in an effort to answer: Can the UPC break with pro-patent tendencies in patent enforcement in Europe, based on the UPC Agreement and other relevant instruments to its decisions, by utilising liability rules, and if so, to what extent?

It is the hypothesis of this thesis that many of the inefficiencies in European patent systems are actually partly caused or worsened by the courts due to overenforcement. In this thesis, it will be argued that the enforcement should be more balanced and that the newly created courts under the UPC Agreement are actually in a position to break with this practice. In that effort, this analysis will focus on the justifications for the allocation of patents as an entitlement, their scope, and the instructions in the UPC Agreement for their enforcement. These concepts will be approached through the analytical framework of Calabresi and Melamed.[12] This framework is employed for a number of reasons. First, their framework is still very influential and appropriate for analysing almost every area of law.[13] Second, and more importantly, its analytical structure allows for a clear but comprehensive analysis of why this entitlement is allocated the way it is, what it entails, how and why it is protected the way it is, and the potential of a more middle-of-the-road approach to enforcement. Following its analytical structure, the relevant articles of the UPC Agreement will be subjected to a black-letter analysis and compared to the wording and interpretation given to corresponding articles in the European Patent Convention (hereinafter: EPC), the TRIPS Agreement and the Enforcement Directive[14]. These instruments are listed as legal sources for the UPC to base its decisions upon.[15] Moreover, the primacy of EU law is recognised by the UPC Agreement,[16] meaning that the interpretation and application of the UPC Agreement is largely confined to the limits these instruments impose. They are thus also valuable resources for this analysis. Furthermore, the part of the analysis focusing on enforcement is limited to those provisions relevant to the grant or denial of final injunctive relief in patent-infringement cases. While it would certainly be interesting to include other types of cases or remedies, this is not necessary for answering the question this thesis aims to answer and would ultimately just distract. This focus allows for the testing of the boundaries of judicial enforcement under the UPC Agreement in a more comprehensive and in-depth analysis.

The structure of this thesis is as follows. The analysis is divided into three parts, namely: I. Patents as an Entitlement; II. Patent Enforcement, and; III. An Analytical Summary. The first chapter of the first part will focus on the justifications and definition of an entitlement under Calabresi and Melamed's framework, and in the second on the special nature of patents. This will be followed up in the third chapter by a general analysis of the UPC Agreement. What a patent as an entitlement entails under the UPC Agreement and other relevant legal instruments will be covered in the fourth chapter. The second part concentrates on enforcement in general. Its first chapter will shortly go into inalienability, property and liability rules, as well as more specifically address relevant considerations for the choice between Calabresi and Melamed's first two rules in patent enforcement. The second chapter homes in on the judicial enforcers under the UPC Agreement and the implications the division of competence will have for the applicability and significance of other legal instruments. The third

[11] Kelli Larson, 'Enforcement: Legal Implications of the European and Unitary Patent Systems for Non-Practicing Entity Patent Enforcement' in Rosa Maria Ballardini, Marcus Norrgård and Niklas Bruun (eds), *Transitions in European Patent Law: Influences of the Unitary Patent Package* (Wolters Kluwer, 2015), 149-150, 157-161.
[12] Guido Calabresi and A. Douglas Melamed, 'Property Rules, Liability Rules, and Inalienability: One View of the Cathedral' (1972) Harvard Law Review 85:6 1089.
[13] Andrew W. Torrance and Bill Tomlinson, 'Property Rules, Liability Rules, and Patents: One Experimental View of the Cathedral' (2011) 14 Yale J.L. & Tech. 138, 140.
[14] Directive 2004/48/EC of the European Parliament and of the Council of 29 April 2004 on the Enforcement of Intellectual Property Rights [2004] OJ L 157 ("Enforcement Directive").
[15] Article 24(1)(a)-(d) of the UPC Agreement.
[16] Article 20 of the UPC Agreement.

chapter will concentrate on the first two rules and the UPC Agreement and analyse the relevant provisions following the Vienna Convention.[17] First, the enforcement objectives as worded in the UPC Agreement will be analysed. After that, chapter 4 will focus on the provisions on permanent injunctions in infringement cases to see whether there are any specific instructions on the shape an injunction may take, as well as the room domestic courts are left with to deny injunctive relief and grant damages instead. Again, the relationship between the UPC Agreement and other relevant legal instruments will be discussed, as well as the implications thereof. Finally, the findings of these chapters will be evaluated in an analytical summary in Part III, which will focus on the scope of the entitlement, the limitations to applying a liability rule, and observations on the implications, possible tensions and peculiarities found surrounding these two concepts.

PART I. PATENTS AS AN ENTITLEMENT

I.1. THE ALLOCATION OF ENTITLEMENTS

The analytical framework developed by Calabresi and Melamed consists of 'two primary questions: (1) In what circumstances should we grant a particular entitlement? and (2) In what circumstances should we decide to protect that entitlement by using a property, liability, or inalienability rule?'[18] Their definitions of "entitlement" and "enforcement" form the pillars of the analyses conducted in this thesis. In this chapter, the focal point is the former.

According to Calabresi and Melamed, an entitlement is essentially the decision of the state to favour one interest over another when they are in conflict.[19] Without such entitlement allocation incompatible interests would be decided by the strength or cunningness of the parties. In other words, "might makes right".[20] The determination of entitlements can thus be seen as the emergence of a right.[21] However, to one particular resource, multiple rights often co-exist with different stakeholders.[22] As pointed out by Burk: 'The more vague or muddy entitlement criteria are, the more multiple stakeholders will be required to deal with one another, as it will be less clear where one entitlement begins and another ends, or when and how new sets of entitlements might be triggered.'[23] The analytical framework identifies three main reasons for deciding upon who to entitle in such conflicts:[24] economic efficiency, distributional justice and other justice reasons.[25] Calabresi and Melamed thus offer a more comprehensive approach to the reasons for allocating entitlements than just economic efficiency.[26] As

[17] Vienna Convention on the Law of Treaties (adopted on 23 May 1969 and opened for signature on 23 May 1969) 1155 UNTS 331 (Vienna Convention), Articles 31 and 32.
[18] Guido Calabresi and A. Douglas Melamed, 'Property Rules, Liability Rules, and Inalienability: One View of the Cathedral' (1972) Harvard Law Review 85:6 1089, 1093.
[19] Guido Calabresi and A. Douglas Melamed, 'Property Rules, Liability Rules, and Inalienability: One View of the Cathedral' (1972) Harvard Law Review 85:6 1089, 1090.
[20] Guido Calabresi and A. Douglas Melamed, 'Property Rules, Liability Rules, and Inalienability: One View of the Cathedral' (1972) Harvard Law Review 85:6 1089, 1090.
[21] Daniel Krauspenhaar, *Liability Rules in Patent Law: A Legal and Economic Analysis* (1st edn, Springer-Verlag Berlin Heidelberg, 2015), 17.
[22] Dan L. Burk, 'Critical Analysis: Property Rules, Liability Rules, and Molecular Futures - Bargaining in the Shadow of the Cathedral' in Geertrui Van Overwalle (ed), *Gene Patents and Clearing Models: From Concepts to Cases* (Cambridge University Press, 2009), 296.
[23] Dan L. Burk, 'Critical Analysis: Property Rules, Liability Rules, and Molecular Futures - Bargaining in the Shadow of the Cathedral' in Geertrui Van Overwalle (ed), *Gene Patents and Clearing Models: From Concepts to Cases* (Cambridge University Press, 2009), 296.
[24] Andrew W. Torrance and Bill Tomlinson, 'Property Rules, Liability Rules, and Patents: One Experimental View of the Cathedral' (2011) 14 Yale J.L. & Tech. 138, 143-144.
[25] Guido Calabresi and A. Douglas Melamed, 'Property Rules, Liability Rules, and Inalienability: One View of the Cathedral' (1972) Harvard Law Review 85:6 1089, 1093.
[26] Martin Husovec, *Injunctions against Intermediaries in the European Union: Accountable but not Liable?* (Cambridge University Press, 2017), 23.

Husovec notes '(static) efficiency analysis is not conclusive, since there might be other distributional goals the society could follow, such as dynamic efficiency or considerations of justice.'[27]

The first, economic efficiency, is defined as a variation of Pareto optimality.[28] It requires that, in terms of the allocation of resources, the whole of entitlements balances the interests of those who gain by the entitlement and of those who lose because of it. As Calabresi and Melamed see it,

> Economic efficiency asks that we choose the set of entitlements which would lead to that allocation of resources which could not be improved in the sense that a further change would not so improve the condition of those who gained by it that they could compensate those who lost from it and still be better off than before.[29]

Solely from the perspective of economic efficiency, this means in practice that a court, in deciding upon conflicting interests relating to a certain resource brought before it, aims to allocate the entitlement so that it ends up with the party 'who values [the resource] most (or could do without it at least cost).'[30] However, such circumstances are not always clear.[31] If the costs and benefits are unclear, efficient allocation guides us towards burdening the party that is best capable of determining those instead with the cost thereof.[32] If this party cannot be identified, the cost of this analysis should be shifted 'to the party that can most easily correct our errors.'[33] The same is true if conflicts would arise due to other policy concerns.[34]

The second category of reasons for the choice of entitlements is distributional justice, which cannot be defined as easily as the former, but is nevertheless vital for establishing entitlements.[35] Distributional justice is a concept that is very closely related to both societal preferences and individual preferences, as well as those linked to dynamic efficiency.[36] The definition used by Calabresi and Melamed is thus very broad; they essentially construe it as encompassing all reasons aside from efficiency on which basis it would be preferred to favour making one party "wealthier" than another.[37] Yet, there are still reasons that may not sit well in either of those two categories.[38] Therefore, they identified a third category in their analytical framework, namely "other justice reasons". However, they do not seem to be able to pinpoint what this category would cover, nor give examples. Instead, they justify the introduction of this third category by arguing that the first two categories as the only reasons for setting entitlements would not be entirely satisfying. Such a broad second category implies *inter*

---

[27] Martin Husovec, *Injunctions against Intermediaries in the European Union: Accountable but not Liable?* (Cambridge University Press, 2017), 24.
[28] Guido Calabresi and A. Douglas Melamed, 'Property Rules, Liability Rules, and Inalienability: One View of the Cathedral' (1972) Harvard Law Review 85:6 1089, 1094.
[29] Guido Calabresi and A. Douglas Melamed, 'Property Rules, Liability Rules, and Inalienability: One View of the Cathedral' (1972) Harvard Law Review 85:6 1089, 1093-1094.
[30] James E. Krier and Stewart J. Schwab, 'Property Rules and Liability Rules: The Cathedral in Another Light' (1995) New York University Law Review 70 440, 446.
[31] Martin Husovec, *Injunctions against Intermediaries in the European Union: Accountable but not Liable?* (Cambridge University Press, 2017), 24-26.
[32] Guido Calabresi and A. Douglas Melamed, 'Property Rules, Liability Rules, and Inalienability: One View of the Cathedral' (1972) Harvard Law Review 85:6 1089, 1096-1098.
[33] Martin Husovec, *Injunctions against Intermediaries in the European Union: Accountable but not Liable?* (Cambridge University Press, 2017), 24.
[34] Guido Calabresi and A. Douglas Melamed, 'Property Rules, Liability Rules, and Inalienability: One View of the Cathedral' (1972) Harvard Law Review 85:6 1089, 1096-1098.
[35] Guido Calabresi and A. Douglas Melamed, 'Property Rules, Liability Rules, and Inalienability: One View of the Cathedral' (1972) Harvard Law Review 85:6 1089, 1098.
[36] Guido Calabresi and A. Douglas Melamed, 'Property Rules, Liability Rules, and Inalienability: One View of the Cathedral' (1972) Harvard Law Review 85:6 1089, 1098.
[37] Guido Calabresi and A. Douglas Melamed, 'Property Rules, Liability Rules, and Inalienability: One View of the Cathedral' (1972) Harvard Law Review 85:6 1089, 1104.
[38] Guido Calabresi and A. Douglas Melamed, 'Property Rules, Liability Rules, and Inalienability: One View of the Cathedral' (1972) Harvard Law Review 85:6 1089, 1102.

alia that reasons grouped in this category are backed by a comparable universality.[39] However, a more limited definition of the second category would imply that justice reasons do 'not apply to the broader distributional preferences or to efficiency-based preferences', which is simply not true for many entitlements.[40] Therefore, Calabresi and Melamed choose to broaden the second category and introduced the third category as a "rest category".

In practice, this means that, based on (distributional or other) justice preferences, a court deciding upon conflicting interests should allocate the entitlement in such a way that the most deserving party starts out with the entitlement.[41] Consequently, the court will have to make a complex trade-off between economic efficiency and (distributional) justice preferences if they lead in the opposite direction.[42] Societal preferences may assign different weight to these three categories from one case to another.[43] However, it generally does not hinge primarily on considerations of transaction or assessment costs, unless the outcome of the balancing act based on reasons other than economic efficiency does not result in a clear "winner".[44] This is due to the fact that the most economically efficient option would be to just let the strongest party triumph, as this would minimise enforcement costs. Therefore, as Calabresi and Melamed have pointed out, economic efficiency alone cannot justify any other result.[45]

I.2. THE PECULIAR CASE OF PATENTS

I.2.1. The reasons

As is apparent from the previous chapter, the justifications for having a patent system must be addressed before it is possible to establish and understand what patents as an entitlement entail. Unfortunately, while patents are a worldwide phenomenon, their justifications still depend to some degree on geographic factors such as legal history and traditions. This is also true for the participating (old) EU Member States to the Unitary Patent Package (hereinafter: UPP). The differences in the justifications stressed by the various European civil law traditions and the English common law tradition has over the years become less apparent, but they are still there.

For example, the current prevailing justification for the patent system in England boils down to the promotion of improvements and innovation for public benefit.[46] More specifically, the patent system is believed to '[link] scientific and technical research with commercial spheres'[47] by encouraging R&D investment as well as the disclosure of novel and innovative technology in a practically useful manner.[48] The patentee receives patent protection in exchange for publicizing the invention so the public may benefit from it.[49] Likewise, in civil law traditions patents are also deemed to be conducive to progress

[39] Guido Calabresi and A. Douglas Melamed, 'Property Rules, Liability Rules, and Inalienability: One View of the Cathedral' (1972) Harvard Law Review 85:6 1089, 1105.
[40] Guido Calabresi and A. Douglas Melamed, 'Property Rules, Liability Rules, and Inalienability: One View of the Cathedral' (1972) Harvard Law Review 85:6 1089, 1105.
[41] James E. Krier and Stewart J. Schwab, 'Property Rules and Liability Rules: The Cathedral in Another Light' (1995) New York University Law Review 70 440, 446.
[42] James E. Krier and Stewart J. Schwab, 'Property Rules and Liability Rules: The Cathedral in Another Light' (1995) New York University Law Review 70 440, 449.
[43] Andrew W. Torrance and Bill Tomlinson, 'Property Rules, Liability Rules, and Patents: One Experimental View of the Cathedral' (2011) 14 Yale J.L. & Tech. 138, 145.
[44] Guido Calabresi and A. Douglas Melamed, 'Property Rules, Liability Rules, and Inalienability: One View of the Cathedral' (1972) Harvard Law Review 85:6 1089, 1093-1094.
[45] Guido Calabresi and A. Douglas Melamed, 'Property Rules, Liability Rules, and Inalienability: One View of the Cathedral' (1972) Harvard Law Review 85:6 1089, 1093-1094.
[46] *Asahi Kasei Kogyo* [1991] *RPC* 485 (HL), 523; Michael Christian Alexander, *Cross-border Patent Infringement Litigation within the European Union* (Ulrik Huber Institute for Private International Law, 2015), 32.
[47] Lionel Bently and Brad Sherman, *Intellectual Property Law* (2nd edn, Oxford University Press 2014), 380.
[48] Lionel Bently and Brad Sherman, *Intellectual Property Law* (2nd edn, Oxford University Press 2014), 379; Michael Christian Alexander, *Cross-border Patent Infringement Litigation within the European Union* (Ulrik Huber Institute for Private International Law, 2015), 31.
[49] Michael Christian Alexander, *Cross-border Patent Infringement Litigation within the European Union* (Ulrik Huber Institute for Private International Law, 2015), 31.

in the industry as well as economically, but their justifications differ from those in the English common law tradition.[50] There are even variations here among civil law traditions. However, in general, it can be said that civil law traditions emphasise the private interests associated with patents more than their possible public benefit.[51] For instance, while this is argued in the context of promoting innovation, rewarding the investors and/or inventor is stressed in Germany as the principal function of patents.[52] However, it is not as if England solely focuses on the public benefit or that the reward function is the only one taken into account in Germany: on both sides of the isle, there is attention for the other types of reasons.[53] It just means that such reasons are considered to be "secondary". States are thus divided over a spectrum from justifying patents from a public-benefit perspective to private interests, with the placing depending on the main justification and the degree to which considerations of the other perspective are weighed in the allocation of entitlements.

However, irrespective of where a state finds itself on this spectrum, the common denominator put forth by states is thus incentivising innovation. Without patent protection, investors and/or inventors would face difficulty recouping their investments and making a profit due to freeriding competitors who can often cheaply imitate a product in a small period of time.[54] This could lead investors and inventors *inter alia* not to invest in R&D, not to innovate, or only do so in secrecy on products or processes that are not as (or less) susceptible to imitation.[55] By correcting such inefficient workings of the market, the patent system aims to incentivise innovation.[56] While patents are thus predominantly economically motivated,[57] both the reward and information function are justifications that clearly pertain more to distributional justice preferences than to economic efficiency. More specifically, they both demonstrate societal preferences and considerations of dynamic efficiency: investors and/or inventors are essentially made "richer" by receiving patent protection 'since they will cause everyone to be better off in the end' by the (investment in) inventions and their publication.[58]

I.2.2. The entitlement

With the identified justifications for patents in mind, it is time to pinpoint what patents as entitlements entail in general. As observed by Krauspenhaar, 'all questions about patent duration, patent scope and what should be patentable are questions about the entitlement and the emergence of a right.'[59] These questions will be largely addressed in another chapter in which legal instruments relevant to patents as an entitlement will be analysed. For now, it suffices to look at the concept in general.

---

[50] Michael Christian Alexander, *Cross-border Patent Infringement Litigation within the European Union* (Ulrik Huber Institute for Private International Law, 2015), 29.
[51] Michael Christian Alexander, *Cross-border Patent Infringement Litigation within the European Union* (Ulrik Huber Institute for Private International Law, 2015), 32.
[52] Reto M. Hilty, 'The Role of Enforcement in Delineating the Scope of IP Rights' [2015] Max Planck Institute for Innovation and Competition Research Paper No. 15-03, 8-9.
[53] Michael Christian Alexander, *Cross-border Patent Infringement Litigation within the European Union* (Ulrik Huber Institute for Private International Law, 2015), 30-32.
[54] Reto M. Hilty, 'The Role of Enforcement in Delineating the Scope of IP Rights' [2015] Max Planck Institute for Innovation and Competition Research Paper No. 15-03, 8-9; Ansgar Ohly, 'Three Principles of European IP Enforcement Law: Effectiveness, Proportionality, Dissuasiveness' in Josef Drexl and Hanns Ullrich (eds), *Technology and Competition: Contributions in Honour of Hanns Ullrich* (Larcier 2009) 257, 258-259.
[55] Edmund W. Kitch, 'The Nature and Function of the Patent System' (1977) Journal of Law and Economics 20:2 265, 266, 275-280.
[56] Annette Kur and Thomas Dreier, *European Intellectual Property Law* (Edward Elgar Publishing 2013), 6; Reto M. Hilty, 'The Role of Enforcement in Delineating the Scope of IP Rights' [2015] Max Planck Institute for Innovation and Competition Research Paper No. 15-03, 8-9.
[57] Annette Kur and Thomas Dreier, *European Intellectual Property Law* (Edward Elgar Publishing 2013), 6.
[58] Guido Calabresi and A. Douglas Melamed, 'Property Rules, Liability Rules, and Inalienability: One View of the Cathedral' (1972) Harvard Law Review 85:6 1089, 1098.
[59] Daniel Krauspenhaar, *Liability Rules in Patent Law: A Legal and Economic Analysis* (1st edn, Springer-Verlag Berlin Heidelberg, 2015), 20.

Intellectual property rights resemble property rights in some ways.[60] One of the common characteristics is that it regulates the access to resources. This concept is best explained via the tragedies of the commons and anticommons: non-exclusive access to a good ("commons") will lead to over-use and under-investment, whereas too restricted access to a good ("anticommons") may lead to under-use and over-investment.[61] A patent is an artificially created exclusivity to correct such market inefficiencies.[62] It is artificial, since the exclusivity of "regular" proprietary rights on material goods has two characteristics that patents lack, namely ubiquity and non-rivalry.[63] The patent is merely a legal entitlement that rests on an immaterial good, not a physical good.[64] This means that it can be used by anyone, anywhere, at any time, and it would not affect the patentee's ability to use it as well, nor its existence.[65] The patent as an entitlement thus aims to avoid a "tragedy of the commons" by restricting the access to subject-matter covered by patents that would otherwise be "commons".[66] Consequently, the entitlement does not constitute an actual exclusive property right, but is essentially a corrective tool.[67] This invites reoccurring criticism that using the term "intellectual property" for patents is misleading.[68]

As with any tool, it is possible to overshoot. Patents as an entitlement can only incentivise innovation if the access to the patented "good" is not too restricted.[69] Otherwise, the opposite problem would develop: over-investment and under-use ("tragedy of the anticommons").[70] As explained by Kur and Dreier, '[patents] are a trade-off between too little and too much protection. Therefore, it is the task of both the legislature and the judges to strike the proper balance.'[71] For the legislator, this does not just entail decisions about whether a patent will be granted, and if so, determining the term and scope, but

[60] Annette Kur and Thomas Dreier, *European Intellectual Property Law* (Edward Elgar Publishing 2013), 6; Ansgar Ohly, 'Three Principles of European IP Enforcement Law: Effectiveness, Proportionality, Dissuasiveness' in Josef Drexl and Hanns Ullrich (eds), *Technology and Competition: Contributions in Honour of Hanns Ullrich* (Larcier 2009) 257, 258-259.

[61] Ugo Mattei, *Basic Principles of Property Law: A Comparative Legal and Economic Introduction* (Contributions in Legal Studies No. 93, Greenwood Press, 2000), 2-3; Annette Kur and Thomas Dreier, *European Intellectual Property Law* (Edward Elgar Publishing 2013), 6-7.

[62] Annette Kur and Thomas Dreier, *European Intellectual Property Law* (Edward Elgar Publishing 2013), 6; Daniel Krauspenhaar, *Liability Rules in Patent Law: A Legal and Economic Analysis* (1st edn, Springer-Verlag Berlin Heidelberg, 2015), 20; Reto M. Hilty, 'The Role of Enforcement in Delineating the Scope of IP Rights' [2015] Max Planck Institute for Innovation and Competition Research Paper No. 15-03, 8-9.

[63] Annette Kur and Thomas Dreier, *European Intellectual Property Law* (Edward Elgar Publishing 2013), 6.

[64] Annette Kur and Thomas Dreier, *European Intellectual Property Law* (Edward Elgar Publishing 2013), 6; Daniel Krauspenhaar, *Liability Rules in Patent Law: A Legal and Economic Analysis* (1st edn, Springer-Verlag Berlin Heidelberg, 2015), 20.

[65] Annette Kur and Thomas Dreier, *European Intellectual Property Law* (Edward Elgar Publishing 2013), 6; Daniel Krauspenhaar, *Liability Rules in Patent Law: A Legal and Economic Analysis* (1st edn, Springer-Verlag Berlin Heidelberg, 2015), 20.

[66] Annette Kur and Thomas Dreier, *European Intellectual Property Law* (Edward Elgar Publishing 2013), 6; Ansgar Ohly, 'Three Principles of European IP Enforcement Law: Effectiveness, Proportionality, Dissuasiveness' in Josef Drexl and Hanns Ullrich (eds), *Technology and Competition: Contributions in Honour of Hanns Ullrich* (Larcier 2009) 257, 258-259.

[67] Alexander Peukert, 'Intellectual Property as an End in Itself?' (2011) E.I.P.R. 33 67, 71.

[68] Annette Kur and Thomas Dreier, *European Intellectual Property Law* (Edward Elgar Publishing 2013), 6-7; Reto M. Hilty, 'The Role of Enforcement in Delineating the Scope of IP Rights' [2015] Max Planck Institute for Innovation and Competition Research Paper No. 15-03, 4.

[69] Reto M. Hilty, 'The Role of Enforcement in Delineating the Scope of IP Rights' [2015] Max Planck Institute for Innovation and Competition Research Paper No. 15-03, 8-9; Annette Kur and Thomas Dreier, *European Intellectual Property Law* (Edward Elgar Publishing 2013), 6-7.

[70] Annette Kur and Thomas Dreier, *European Intellectual Property Law* (Edward Elgar Publishing 2013), 8-12; Reto M. Hilty, 'The Role of Enforcement in Delineating the Scope of IP Rights' [2015] Max Planck Institute for Innovation and Competition Research Paper No. 15-03, 9.

[71] Annette Kur and Thomas Dreier, *European Intellectual Property Law* (Edward Elgar Publishing 2013), 7; see also Alexander Peukert, 'Intellectual Property as an End in Itself?' (2011) E.I.P.R. 33 67, 71.

also competition policy.[72] In this context, limitations[73] on and exceptions[74] to patent entitlements function as a counterbalance to its artificial exclusivity.[75] They provide for a certain degree of operational freedom and give competitors and end-users the opportunity to undertake innovative endeavours.[76] Courts then interpret, and thereby develop, the often abstract substantive concepts and rules resulting over time in a comprehensive system outlining the limits to both the entitlement and enforcement.[77] Unfortunately, there are again differences in the concept of patents and exceptions based on *inter alia* legal history and tradition. Moreover, limitations to the scope of patents are largely determined by the innovation and competition policy of a certain state.[78]

For instance, while patents are perceived as limited monopolies in the English common law tradition,[79] patents take on more of a proprietary character in civil law traditions.[80] A more specific example of the latter is Germany, where patents are basically treated as exclusive rights.[81] From both perspectives, the cost of having patents in place is borne by society.[82] For the English common law tradition, this means that a patent as an entitlement is limited to the extent that it benefits society more than it costs. As for the German perspective, the reward function as such is not jeopardised by treating patent entitlements as exclusive rights. However, the objective served by the reward function, incentivising innovation, certainly is.[83] This means that even though an infringement case may appear as just a conflict between two parties with different interests, with patents it is not quite that simple.

---

[72] Daniel Krauspenhaar, *Liability Rules in Patent Law: A Legal and Economic Analysis* (1st edn, Springer-Verlag Berlin Heidelberg, 2015), 32.

[73] Examples of such limitations are categories of non-patentable subject-matter, exhaustion, requirements for patentable subject-matter to be eligible for patent, and the limited period of time for which investors and/or inventors can obtain patents. Daniel Krauspenhaar, *Liability Rules in Patent Law: A Legal and Economic Analysis* (1st edn, Springer-Verlag Berlin Heidelberg, 2015), 18-20. In addition, it may be argued that the annual fees the patentee must pay to prevent the patent from expiring before the maximum term also constitutes a limit. After all, some firms may consider it too expensive to obtain patents, or if a patent does not yield much commercial benefits, patent fees can encourage a patentee to let the patent expire. Daniel Krauspenhaar, *Liability Rules in Patent Law: A Legal and Economic Analysis* (1st edn, Springer-Verlag Berlin Heidelberg, 2015), 18-20.

[74] Examples of exceptions to patent entitlements are prior user rights and compulsory license schemes. Daniel Krauspenhaar, *Liability Rules in Patent Law: A Legal and Economic Analysis* (1st edn, Springer-Verlag Berlin Heidelberg, 2015), 19.

[75] Nari Lee, 'Adding Fuel to Fire: A Complex Case of Unifying Patent Limitations and Exceptions through the EU Patent Package' in Rosa Maria Ballardini, Marcus Norrgård and Niklas Bruun (eds), *Transitions in European Patent Law: Influences of the Unitary Patent Package* (Wolters Kluwer, 2015), 211.

[76] Nari Lee, 'Adding Fuel to Fire: A Complex Case of Unifying Patent Limitations and Exceptions through the EU Patent Package' in Rosa Maria Ballardini, Marcus Norrgård and Niklas Bruun (eds), *Transitions in European Patent Law: Influences of the Unitary Patent Package* (Wolters Kluwer, 2015), 211.

[77] Clement Salung Petersen, Thomas Riis and Jens Schovsbo, 'The Unified Patent Court (UPC) in Action' in Rosa Maria Ballardini, Marcus Norrgård and Niklas Bruun (eds), *Transitions in European Patent Law: Influences of the Unitary Patent Package* (Wolters Kluwer, 2015), 38-39.

[78] Nari Lee, 'Adding Fuel to Fire: A Complex Case of Unifying Patent Limitations and Exceptions through the EU Patent Package' in Rosa Maria Ballardini, Marcus Norrgård and Niklas Bruun (eds), *Transitions in European Patent Law: Influences of the Unitary Patent Package* (Wolters Kluwer, 2015), 211.

[79] Lionel Bently and Brad Sherman, *Intellectual Property Law* (2nd edn, Oxford University Press 2014), 375.

[80] Michael Christian Alexander, *Cross-border Patent Infringement Litigation within the European Union* (Ulrik Huber Institute for Private International Law, 2015), 30-32; Peter Blok, 'A Harmonized Approach to Prohibitory Injunctions: Reconsidering Article 12 of the Enforcement Directive' (2016) Journal of Intellectual Property Law & Practice 11(1) 56, 59; Ansgar Ohly, 'Three Principles of European IP Enforcement Law: Effectiveness, Proportionality, Dissuasiveness' in Josef Drexl and Hanns Ullrich (eds), *Technology and Competition: Contributions in Honour of Hanns Ullrich* (Larcier 2009) 257, 258-259.

[81] Daniel Krauspenhaar, *Liability Rules in Patent Law: A Legal and Economic Analysis* (1st edn, Springer-Verlag Berlin Heidelberg, 2015), 20-21; Ansgar Ohly, 'Three Principles of European IP Enforcement Law: Effectiveness, Proportionality, Dissuasiveness' in Josef Drexl and Hanns Ullrich (eds), *Technology and Competition: Contributions in Honour of Hanns Ullrich* (Larcier 2009), 257-260.

[82] For instance, patents as exclusive rights hamper the positive effects that competition has on the price and quality of products. In addition, licence costs will also affect the price of products. Ultimately those additional costs will affect consumer welfare negatively.

[83] Reto M. Hilty, 'The Role of Enforcement in Delineating the Scope of IP Rights' [2015] Max Planck Institute for Innovation and Competition Research Paper No. 15-03, 9.

I.3. THE UPC AGREEMENT

I.3.1. The agreement in general

With the general justifications for having a patent system in place in mind, it is time to look at the legal instrument that is the object of this analysis. In this subchapter, some attention will be paid to how the UPC Agreement came about and to some of the characteristics of the UPC Agreement to get a better understanding of the UPC Agreement and the position of its court.

The UPC Agreement forms the UPP, together with the Unitary Patent Regulation[84] and the Translations Arrangements Regulation[85].[86] The UPP came about via Council Decision 2011/167/EU[87] in which the Council authorised the enhanced cooperation to create a unitary patent, despite the objections of Italy and Spain,[88] and was signed in the beginning of 2013 by 25 Member States.[89] The UPC Agreement covers, in short, matters such as the makeup of panels, scope and jurisdiction,[90] the powers of the UPC, the sources of law on which its decisions will be based, substantive patent law, financial, organisational and procedural provisions, and of course the final provisions on *inter alia* its entry into force. Based on Article 89 of the UPC Agreement, the entry into force of the UPC Agreement hinges on the ratification by thirteen Member States, among which France, Germany and the United Kingdom.[91] If these conditions are met, the UPC Agreement will come into force among those Member States that have already ratified it.[92] At the time of writing, the entry into forces depended solely on

---

[84] Regulation (EU) 1257/2012 of 17 December 2012 implementing enhanced cooperation in the area of the creation of unitary patent protection [2012] L 361/1.

[85] Council Regulation (EU) No 1260/2012 of 17 December 2012 implementing enhanced cooperation in the area of the creation of unitary patent protection with regard to the applicable translation arrangements [2012] L 361/89.

[86] Thomas Jaeger, 'Shielding the Unitary Patent from the ECJ: A Rash and Futile Exercise' (2013) International Review of Intellectual Property and Competition Law 44:4 389; Avgi Kaisi, 'Finally a single European right for the EU? An analysis of the substantive provisions of the European patent with unitary effect' (2014) European Intellectual Property Review 36:3 170.

[87] Council Decision 2011/167/EU of 10 March 2011 authorising enhanced cooperation in the area of the creation of unitary patent protection [2011] OJ L 76/53.

[88] Thomas Jaeger, 'Shielding the Unitary Patent from the ECJ: A Rash and Futile Exercise' (2013) International Review of Intellectual Property and Competition Law 44:4 389; Hanns Ullrich, 'Harmonizing Patent Law: The Untamable Union Patent' [2012] Max Planck Institute for Intellectual Property and Competition Law Research Paper No. 12-03, 4.

[89] Council Document 16351/12 of 11 January 2013 and Council Document 16351/12 COR 3 of 8 February 2013; Rosa Maria Ballardini, Marcus Norrgård and Niklas Bruun, 'European Patent Law: The Case for Reform' in Rosa Maria Ballardini, Marcus Norrgård and Niklas Bruun (eds), *Transitions in European Patent Law: Influences of the Unitary Patent Package* (Wolters Kluwer, 2015), 9.

[90] Article 31 of the UPC Agreement provides that Brussel I, and in some cases the Lugano Convention, will dictate the international jurisdiction of the UPC. The issue of jurisdiction in the context of Brussels Ibis and the Lugano Convention will not be part of this thesis' main analysis. For completeness, it suffices to say that the UPC Agreement required some amendments to Brussels Ibis that have indeed been made through the addition of Articles 71a to 71d to this regulation. See Regulation (EU) 542/2014 of 15 May 2014 amending Regulation (EU) No 1215/2012 as regards the rules to be applied with respect to the Unified Patent Court and the Benelux Court of Justice [2012] OJ L163/1, and; Regulation (EU) No 1215/2012 of 12 December 2012 on jurisdiction and the recognition and enforcement of judgments in civil and commercial matters (recast) [2012] OJ L351/1. In Article 71a(2)(a), it is clarified that the UPC is a court within the meaning of this regulation. Furthermore, Article 71b essentially provides that the UPC's jurisdiction depends on any national court's jurisdiction of a Contracting State based on the Brussels Ibis Regulation. If this is not the case, the UPC does not have jurisdiction either. In addition, it complements existing jurisdictional rules in cases involving third-state defendants falling within the UPC's jurisdiction. For cases brought both before the UPC and the domestic court of a non-Contracting State, Article 71c declares the rules on *lis pendens* and related actions applicable. Finally, Article 71d declares the rules on recognition and enforcement of Brussels Ibis applicable to cases involving the decision of a common court (i.e. the UPC) or of a domestic court of a Member State not participating in the UPC Agreement. This will not be the case for decisions of the UPC in participating Member States; the relevant rules of the UPC Agreement will then apply. For a more detailed analysis, see Michael Christian Alexander, *Cross-border Patent Infringement Litigation within the European Union* (Ulrik Huber Institute for Private International Law, 2015), 520-544.

[91] Rosa Maria Ballardini, Marcus Norrgård and Niklas Bruun, 'European Patent Law: The Case for Reform' in Rosa Maria Ballardini, Marcus Norrgård and Niklas Bruun (eds), *Transitions in European Patent Law: Influences of the Unitary Patent Package* (Wolters Kluwer, 2015), 9; 'Unitary Patent Regime Finally Agreed' (2013) EU Focus 304 1, 3; The Select Committee and Preparatory Committee, 'An Enhanced European Patent System' (2014) <www.unified-patent-court.org/sites/default/files/enhanced-european-patent-system.pdf> accessed on 12 June 2018.

[92] 'Unitary Patent Regime Finally Agreed' (2013) EU Focus 304 1, 3; The Select Committee and Preparatory Committee, 'An Enhanced European Patent System' (2014) <www.unified-patent-court.org/sites/default/files/enhanced-european-patent-system.pdf> accessed on 12 June 2018.

ratification by Germany.[93] Based on Article 18 of the Unitary Patent Regulation and Article 7 of the Translations Arrangements Regulation, the applicability of these regulations depends on the entry into force of the UPC Agreement.[94] This is interesting, since the regulations are obviously EU legal instruments, whereas the UPC Agreement is a special case. It is an international intergovernmental treaty between EU Member States (and the United Kingdom), open to EU Member States only (despite of the United Kingdom's membership).[95] Contrary to earlier proposals, it is notable that the final version of the UPC Agreement places the UPC within the EU legal system.[96] It is under the same obligations as any domestic court of the EU Member States.[97]

The UPC Agreement has had a very long and interesting run-up period,[98] with the first efforts for a European patent dating back to 1962.[99] In that time period, every effort has failed until the UPP due to political disagreements about both the language and dispute settlement regime.[100] The language issue is obviously a contentious one, since the application must be capable of performing its information function as well as serve as the subject-matter protected against proscribed use by unauthorised third parties. What makes the UPP different? This question cannot be answered with a clear answer, rather it comes down to several relevant factors. First, it has been suggested that the financial crisis has motivated the EU institutions and Member States to find a compromise in this area.[101] Second, the UPP has been developed via the enhanced cooperation procedure, which allowed the participating EU Member States to bypass the concerns and objections of other EU Member States.[102] Third, reoccurring

---

[93] At the time of writing, the General Secretariat of the Council reports that sixteen Member States have ratified the UPC Agreement. Among those Member States are France and the United Kingdom. Despite its enacting of Article 50 of the Treaty on the European Union (hereinafter: TEU), the United Kingdom notified the European Commission on 26 April of 2018 that it has ratified the UPC Agreement. France had already ratified the UPC Agreement early on, as notified on 14 March 2014. Unfortunately, the ratification by Germany has stalled. A case was brought in 2017 concerning the German legislation meant to enable ratification, and the case is now pending before the Bundesverfassungsgericht (BVerfG; the German Federal Constitutional Court). General Secretariat of the Council, 'Ratification Details' <www.consilium.europa.eu/en/documents-publications/treaties-agreements/agreement/?id=2013001&DocLanguage=en> accessed on 12 June 2018.

[94] Avgi Kaisi, 'Finally a single European right for the EU? An analysis of the substantive provisions of the European patent with unitary effect' (2014) European Intellectual Property Review 36:3 170.

[95] Martin Husovec, *Injunctions against Intermediaries in the European Union: Accountable but not Liable?* (Cambridge University Press, 2017), 48; Maria Aranzazu Gandia Sellens, 'The viability of the unitary patent package after the UK's ratification of the Agreement on a Unified Patent Court' (2018) International Review of Intellectual Property and Competition Law 49:2 136, 137; Rosa Maria Ballardini, Marcus Norrgård and Niklas Bruun, 'European Patent Law: The Case for Reform' in Rosa Maria Ballardini, Marcus Norrgård and Niklas Bruun (eds), *Transitions in European Patent Law: Influences of the Unitary Patent Package* (Wolters Kluwer, 2015), 9.

[96] Michael Christian Alexander, *Cross-border Patent Infringement Litigation within the European Union* (Ulrik Huber Institute for Private International Law, 2015), 519.

[97] Articles 1, second paragraph, 20 (on primacy of EU law), 21 (on preliminary references) and 24(1)(a) (on EU law as a source of law to base its decisions on) of the UPC Agreement.

[98] Hanns Ullrich, 'Harmonizing Patent Law: The Untamable Union Patent' [2012] Max Planck Institute for Intellectual Property and Competition Law Research Paper No. 12-03, 4-7; Avgi Kaisi, 'Finally a single European right for the EU? An analysis of the substantive provisions of the European patent with unitary effect' (2014) European Intellectual Property Review 36:3 170.

[99] Hanns Ullrich, 'Harmonizing Patent Law: The Untamable Union Patent' [2012] Max Planck Institute for Intellectual Property and Competition Law Research Paper No. 12-03, 5. Of course, the EPC was a significant accomplishment in patent application and granting, but the patent granted via the EPC-route really constitutes a bundle of national patents.

[100] Hanns Ullrich, 'Harmonizing Patent Law: The Untamable Union Patent' [2012] Max Planck Institute for Intellectual Property and Competition Law Research Paper No. 12-03, 4-10. Of course, there is the example of the EPO, but a patent granted based on the EPC is merely a bundle of national patents.

[101] Esther van Zimmeren, 'Patent Reforms at Both Sides of the Atlantic: An Analysis of the Patent Package and the America Invents Act through the Lens of 'Dynamic Patent Governance' in Rosa Maria Ballardini, Marcus Norrgård and Niklas Bruun (eds), *Transitions in European Patent Law: Influences of the Unitary Patent Package* (Wolters Kluwer, 2015), 16.

[102] Both Spain and Italy voted against proceeding via enhanced cooperation and even brought complaints before the CJEU, but these were dismissed. Hanns Ullrich, 'Harmonizing Patent Law: The Untamable Union Patent' [2012] Max Planck Institute for Intellectual Property and Competition Law Research Paper No. 12-03, 5 and 21; Avgi Kaisi, 'Finally a single European right for the EU? An analysis of the substantive provisions of the European patent with unitary effect' (2014) European Intellectual Property Review 36:3 170, 172. Despite its grievances, Italy decided to join and has communicated its ratification of the UPC Agreement to the Commission on 10 February 2017. At the moment, only Poland and Spain have not signed on. General Secretariat of the Council, 'Ratification Details' <www.consilium.europa.eu/en/documents-publications/treaties-

issues such as the language regime and substantive patent law provisions have been moved: the language regime is dealt with in a separate instrument, and; Articles 6 to 8 (containing substantive patent rules) of the Unitary Patent Regulation were moved to the UPC Agreement.[103] Furthermore, there is an opt-out clause allowing patentees to bypass the UPP's substantive patent law and the jurisdiction of the UPC for "European patents" existing or pending at the time of entry into force.[104]

I.3.2. The unitary patent

So, what makes the unitary patent different? The unitary patent is essentially a bundle of national patents converted into a *single* patent.[105] It will be subject to one language regime and one renewal fees scheme.[106] The unitary patent is created by the Unitary Patent Regulation,[107] and has its legal basis in Article 118(1) of the TFEU[108], which has been fiercely criticised in legal scholarship. While some of the choices made surrounding the creation of the unitary patent are deserving of critique, it is doubtful they warrant a different legal basis.[109] Article 118(1) reads:

> In the context of the establishment and functioning of the internal market, the European Parliament and the Council, acting in accordance with the ordinary legislative procedure, *shall* establish [1] measures for the creation of [2] *European* intellectual property rights [3] *to provide uniform protection* of intellectual property rights [4] *throughout the Union* and for the setting up of centralised Union-wide authorisation, coordination and supervision arrangements.[110]

First, this article does not define the type of measures to achieve its objective, nor its origin. Therefore, it does not preclude the supplementation of an EU instrument (*in casu* the Unitary Patent Regulation) by an international agreement.[111] Second, it has been argued that Article 118(1) of the TFEU only gives rise to the competence of creating an EU patent.[112] Despite its EU-origin, the unitary patent is merely a European patent with unitary effect limited to the participating Member States that have already ratified the UPC Agreement.[113] However, this provision refers to "European" intellectual property rights, not to

---

agreements/agreement/?id=2013001&DocLanguage=en> accessed on 19 June 2018; Michael Christian Alexander, *Cross-border Patent Infringement Litigation within the European Union* (Ulrik Huber Institute for Private International Law, 2015), 497.

[103] Avgi Kaisi, 'Finally a single European right for the EU? An analysis of the substantive provisions of the European patent with unitary effect' (2014) European Intellectual Property Review 36:3 170, 172-173.

[104] Hanns Ullrich, 'Harmonizing Patent Law: The Untamable Union Patent' [2012] Max Planck Institute for Intellectual Property and Competition Law Research Paper No. 12-03, 49.

[105] Hanns Ullrich, 'Enhanced Cooperation in the Area of Unitary Patent Protection and European Integration' (2013) ERA Forum 13:4 589-610, 598.

[106] Hanns Ullrich, 'Harmonizing Patent Law: The Untamable Union Patent' [2012] Max Planck Institute for Intellectual Property and Competition Law Research Paper No. 12-03, 45.

[107] Article 5 and Recitals 7 and 9 of the Unitary Patent Regulation.

[108] Treaty on the Functioning of the European Union (2016/C 202/01).

[109] Michael Christian Alexander, *Cross-border Patent Infringement Litigation within the European Union* (Ulrik Huber Institute for Private International Law, 2015), 508

[110] Emphasis added.

[111] Michael Christian Alexander, *Cross-border Patent Infringement Litigation within the European Union* (Ulrik Huber Institute for Private International Law, 2015), 508-509. Criticism on this point was voiced by, *inter alia*, Reto M. Hilty and Others, 'The Unitary Patent Package: Twelve Reasons for Concern' [2012] Max Planck Institute for Innovation and Competition Research Paper No. 12-12; Hanns Ullrich, 'Enhanced Cooperation in the Area of Unitary Patent Protection and European Integration' (2013) ERA Forum 13:4 589; Avgi Kaisi, 'Finally a single European right for the EU? An analysis of the substantive provisions of the European patent with unitary effect' (2014) European Intellectual Property Review 36:3 170, 173.

[112] Criticism on this point was voiced by, *inter alia*, Hanns Ullrich, 'Enhanced Cooperation in the Area of Unitary Patent Protection and European Integration' (2013) ERA Forum 13:4 589, 597-598.

[113] Hanns Ullrich, 'Harmonizing Patent Law: The Untamable Union Patent' [2012] Max Planck Institute for Intellectual Property and Competition Law Research Paper No. 12-03, 4-5; Reto M. Hilty and Others, 'The Unitary Patent Package: Twelve Reasons for Concern' [2012] Max Planck Institute for Innovation and Competition Research Paper No. 12-12.

EU intellectual property rights.[114] Third, uniform protection is essentially provided for unitary patents, albeit it being in the form of letting the unitary patent be governed by the domestic patent law of one single Member State.[115] This issue will be further explored below. Fourth and finally, 'throughout the Union' is more or less caught by the usage of the enhanced cooperation procedure.[116] This allows for the creation of a unitary-patent scheme in a part of the EU Member States of the EU, which the remaining EU Member States may join later. Once all EU Member States have joined, the fourth element will also have been satisfied.

However, the compatibility of these choices with the legal basis cannot help the clumsiness correctly pointed out in legal scholarship, nor does it immunize their consequences from criticism. Obviously, even if all EU Member States have joined, they will still have ended up with a structure partly outside of the EU legal framework. The chosen structure for the unitary patent carves out a large part of the EU's ability to provide for comprehensive EU intellectual property law.[117] In addition, it complicates matters by adding a new legal framework as a separate layer on top of the existing frameworks without replacing any of the existing schemes. If the UPC Agreement enters into force, there will be four types of patents in the EU: (1) national patents granted and protected by the national laws of the countries in which they are granted; (2) European patents protected based on domestic law of the Designated States due to use of the opt-out possibility; (3) European patents protected via the UPC-Agreement route, and; (4) unitary patents protected via the UPC-Agreement route.[118] Consequently, the introduction of the UPC is merely another player put on the field where national courts and patent authorities, institutions of the EPOrg and the CJEU have already been playing for years. The interplay between all these players is likely to raise questions and conflicts of competence and on the interpretation and application of law.[119]

I.3.3. Granting and validity

With the new type of patent created by the Unitary Patent Regulation,[120] the application and granting will be governed by the EPC.[121] In fact, the unitary patent is dependent on the European patent, since it 'shall be deemed not to have arisen to the extent that the European Patent has been revoked or limited'.[122] The application for a unitary patent starts out as an application for a European patent with

---

[114] Michael Christian Alexander, *Cross-border Patent Infringement Litigation within the European Union* (Ulrik Huber Institute for Private International Law, 2015), 508.

[115] Avgi Kaisi, 'Finally a single European right for the EU? An analysis of the substantive provisions of the European patent with unitary effect' (2014) European Intellectual Property Review 36:3 170, 177; Hanns Ullrich, 'Harmonizing Patent Law: The Untamable Union Patent' [2012] Max Planck Institute for Intellectual Property and Competition Law Research Paper No. 12-03, 45, 50. Criticism on this point was voiced by, *inter alia*, Hanns Ullrich, 'Enhanced Cooperation in the Area of Unitary Patent Protection and European Integration' (2013) ERA Forum 13:4 589, 598.

[116] Michael Christian Alexander, *Cross-border Patent Infringement Litigation within the European Union* (Ulrik Huber Institute for Private International Law, 2015), 509. For a more critical analysis, see, for example, Hanns Ullrich, 'Enhanced Cooperation in the Area of Unitary Patent Protection and European Integration' (2013) ERA Forum 13:4 589; Reto M. Hilty and Others, 'The Unitary Patent Package: Twelve Reasons for Concern' [2012] Max Planck Institute for Innovation and Competition Research Paper No. 12-12.

[117] Hanns Ullrich, 'Harmonizing Patent Law: The Untamable Union Patent' [2012] Max Planck Institute for Intellectual Property and Competition Law Research Paper No. 12-03, 32.

[118] Hanns Ullrich, 'Harmonizing Patent Law: The Untamable Union Patent' [2012] Max Planck Institute for Intellectual Property and Competition Law Research Paper No. 12-03, 49-52.

[119] Nari Lee, 'Adding Fuel to Fire: A Complex Case of Unifying Patent Limitations and Exceptions through the EU Patent Package' in Rosa Maria Ballardini, Marcus Norrgård and Niklas Bruun (eds), *Transitions in European Patent Law: Influences of the Unitary Patent Package* (Wolters Kluwer, 2015), 220; Hanns Ullrich, 'Harmonizing Patent Law: The Untamable Union Patent' [2012] Max Planck Institute for Intellectual Property and Competition Law Research Paper No. 12-03, 50.

[120] Article 5 of the Unitary Patent Regulation.

[121] Recitals 5, 17 and Article 9 of the Unitary Patent Regulation

[122] Article 3(3) of the Unitary Patent Regulation. This is interesting, since the EPC is open to non-EU Members while the Unitary Patent Package's regulations are EU instruments and the UPC is an international agreement open to EU Member States only. Avgi Kaisi, 'Finally a single European right for the EU? An analysis of the substantive provisions of the European patent with unitary effect' (2014) European Intellectual Property Review 36:3 170, 173; Michael Christian Alexander, *Cross-border*

the EPO, which will then determine whether the application meets the requirements set out in the EPC.[123] For the purpose of this thesis, it suffices to say that arguably the most important provisions of this convention for this purpose are Articles 54, 56 and 57, 83, and Articles 52 and 53 of the EPC. The first three prescribe that the invention should be novel, inventive and susceptible for industrial application.[124] Article 83 prescribes that the invention must be disclosed in a sufficiently clear and complete manner. Articles 52 and 53 exclude certain types of subject matter (as such) from patentability, mainly based on considerations that certain types of subject matter should remain free, that a technical effect is required,[125] or that certain inventions may be contrary to *ordre public* and/or morality.[126] To obtain unitary effect in the participating EU Member States, applicants will have to put in a request thereto with the EPO after the European patent is granted.[127] This takes on the form of a request for entry into the 'Register' for unitary patent protection within a month after the grant's publication in the European Patent Bulletin.[128] This publication will serve as the date of effect of the unitary patent.[129] The unitary patent will not have to be validated in the participating EU Member States.[130]

Even after the European or unitary patent has been granted, third parties may question its validity. Based on the UPC Agreement, the UPC has exclusive competence on actions for revocation of both classical European patents and those with unitary effect.[131] Its decisions have effect for the whole of the "unitary territory".[132] Should questions on the correct interpretation or application of EU

Patent Infringement Litigation within the European Union (Ulrik Huber Institute for Private International Law, 2015), 519; Annette Kur and Thomas Dreier, *European Intellectual Property Law* (Edward Elgar Publishing 2013), 155. In fact, roughly a third of the Member states of the EPOrg is not an EU Member State. Annette Kur and Thomas Dreier, *European Intellectual Property Law* (Edward Elgar Publishing 2013), 91 and 93.

[123] Avgi Kaisi, 'Finally a single European right for the EU? An analysis of the substantive provisions of the European patent with unitary effect' (2014) European Intellectual Property Review 36:3 170, 173; Annette Kur and Thomas Dreier, *European Intellectual Property Law* (Edward Elgar Publishing 2013), 89; Michael Christian Alexander, *Cross-border Patent Infringement Litigation within the European Union* (Ulrik Huber Institute for Private International Law, 2015), 498 and 508; Rosa Maria Ballardini, Marcus Norrgård and Niklas Bruun, 'European Patent Law: The Case for Reform' in Rosa Maria Ballardini, Marcus Norrgård and Niklas Bruun (eds), *Transitions in European Patent Law: Influences of the Unitary Patent Package* (Wolters Kluwer, 2015), 8.

[124] These matters are also covered in Article 27(1) of the TRIPS Agreement.

[125] Clement Salung Petersen, Thomas Riis and Jens Schovsbo, 'The Unified Patent Court (UPC) in Action' in Rosa Maria Ballardini, Marcus Norrgård and Niklas Bruun (eds), *Transitions in European Patent Law: Influences of the Unitary Patent Package* (Wolters Kluwer, 2015), 39; Annette Kur and Thomas Dreier, *European Intellectual Property Law* (Edward Elgar Publishing 2013), 107.

[126] Article 53(a) of the EPC contains the key norms *ordre public* and morality. These concepts are difficult to define, but simply put, the former is usually understood in terms of public security and the environment, and the latter as the more fluid distinction between "right and wrong" based on general beliefs in society. Clement Salung Petersen, Thomas Riis and Jens Schovsbo, 'The Unified Patent Court (UPC) in Action' in Rosa Maria Ballardini, Marcus Norrgård and Niklas Bruun (eds), *Transitions in European Patent Law: Influences of the Unitary Patent Package* (Wolters Kluwer, 2015), 46 and 48. Since the EPC is one of the sources on which the UPC must base its decisions, this provision will remain relevant even after grant. Additionally, these norms are also included in Article 6 and Recital 38 of Directive 98/44/EC of the European Parliament and of the Council of 6 July 1998 on the legal protection of biotechnological inventions [2013] OJ L213/13 (hereinafter: Biotech Directive) and Article 27(2) of TRIPS Agreement. This may prove problematic for the unitary patent, considering it can only be revoked or limited with respect to the entire unitary-patent area based on Article 3(2) of the Unitary Patent Regulation. Unlike the unitary patent, a European patent can later be revoked or limited by domestic courts of the Designated States for their own respective jurisdiction.

[127] Rosa Maria Ballardini, Marcus Norrgård and Niklas Bruun, 'European Patent Law: The Case for Reform' in Rosa Maria Ballardini, Marcus Norrgård and Niklas Bruun (eds), *Transitions in European Patent Law: Influences of the Unitary Patent Package* (Wolters Kluwer, 2015); Esther van Zimmeren, 'Patent Reforms at Both Sides of the Atlantic: An Analysis of the Patent Package and the America Invents Act through the Lens of 'Dynamic Patent Governance' in Rosa Maria Ballardini, Marcus Norrgård and Niklas Bruun (eds), *Transitions in European Patent Law: Influences of the Unitary Patent Package* (Wolters Kluwer, 2015).

[128] Recital 18 and Articles 3 and 4 of the Unitary Patent Regulation.

[129] Article 4(1) of the Unitary Patent Regulation.

[130] Esther van Zimmeren, 'Patent Reforms at Both Sides of the Atlantic: An Analysis of the Patent Package and the America Invents Act through the Lens of 'Dynamic Patent Governance' in Rosa Maria Ballardini, Marcus Norrgård and Niklas Bruun (eds), *Transitions in European Patent Law: Influences of the Unitary Patent Package* (Wolters Kluwer, 2015), 27.

[131] Articles 3(a) and (c) and 32(1)(d) and (e) of the UPC Agreement.

[132] Article 3(2) of the Unitary Patent Regulation and Article 34 of the UPC Agreement.

law arise, the UPC is obliged to refer such questions to the CJEU via the preliminary reference procedure.[133] The CJEU's preliminary rulings are binding on the UPC,[134] but the CJEU's role here appears to be limited at first glance.[135] When it comes to the UPC Agreement, the CJEU's jurisdiction will only be a concurrent one with the UPC limited to unitary patents only.[136] While the interpretation of the Unitary Patent Regulation is within the scope of the CJEU's competence, the UPC Agreement clearly is not. It seems Articles 6 to 8 (containing substantive patent rules) of the proposed Unitary Patent Regulation were moved to the UPC Agreement intentionally to by-pass the CJEU.[137] Whether this effort will prove successful is questionable.[138] For example, the EU's Biotech Directive is an industry-specific legal instrument containing relevant provisions for the scope and limitations of patents on biotechnological inventions. Any questions on the validity of European or unitary patents requiring the interpretation of the Biotech Directive is unlikely to be decided by the UPC without a preliminary ruling of the CJEU, because the CJEU may decide such matters for patents outside the scope of the UPC Agreement.[139] The CJEU can thus already say something about the scope and limitations of patents, albeit limited to those in this specific industry. Moreover, the interpretation of other EU legal instruments might also lead to a more decisive role for the CJEU in determining the scope of the entitlement, even if they do not contain specific limitations of patents.[140] 'Even though the legal nature of the [UPC Agreement] is not an EU instrument but a classical international convention, its connection to the EU and its law is indisputable.'[141]

Furthermore, the CJEU is not exactly known for its reticence when it comes to determining its competence. In *Daicchi Sankyo*, the ECJ accepted the Commission's argument that 'the TRIPS Agreement as a whole relates to 'commercial aspects of intellectual property' within the meaning of Article 207(1) of the TFEU'.[142] This means that the TRIPS Agreement now falls under common commercial policy, which is a policy area subject to the exclusive competence of the EU. This also has

---

[133] Article 19(1) of the Treaty on European Union, Article 267 of the TFEU and Article 1 of the UPC Agreement. This obligation is additionally enshrined in Article 21 of the latter instrument.

[134] Article 3(2), second paragraph, of the Unitary Patent Regulation.

[135] Hanns Ullrich, 'Harmonizing Patent Law: The Untamable Union Patent' [2012] Max Planck Institute for Intellectual Property and Competition Law Research Paper No. 12-03, 50.

[136] Hanns Ullrich, 'Harmonizing Patent Law: The Untamable Union Patent' [2012] Max Planck Institute for Intellectual Property and Competition Law Research Paper No. 12-03, 50.

[137] Avgi Kaisi, 'Finally a single European right for the EU? An analysis of the substantive provisions of the European patent with unitary effect' (2014) European Intellectual Property Review 36:3 170, 172-173; Clement Salung Petersen, Thomas Riis and Jens Schovsbo, 'The Unified Patent Court (UPC) in Action' in Rosa Maria Ballardini, Marcus Norrgård and Niklas Bruun (eds), *Transitions in European Patent Law: Influences of the Unitary Patent Package* (Wolters Kluwer, 2015), 41; Hanns Ullrich, 'Enhanced Cooperation in the Area of Unitary Patent Protection and European Integration' (2013) ERA Forum 13:4 589, 599; Nari Lee, 'Adding Fuel to Fire: A Complex Case of Unifying Patent Limitations and Exceptions through the EU Patent Package' in Rosa Maria Ballardini, Marcus Norrgård and Niklas Bruun (eds), *Transitions in European Patent Law: Influences of the Unitary Patent Package* (Wolters Kluwer, 2015), 214.

[138] Esther van Zimmeren, 'Patent Reforms at Both Sides of the Atlantic: An Analysis of the Patent Package and the America Invents Act through the Lens of 'Dynamic Patent Governance' in Rosa Maria Ballardini, Marcus Norrgård and Niklas Bruun (eds), *Transitions in European Patent Law: Influences of the Unitary Patent Package* (Wolters Kluwer, 2015), 27.

[139] Nari Lee, 'Adding Fuel to Fire: A Complex Case of Unifying Patent Limitations and Exceptions through the EU Patent Package' in Rosa Maria Ballardini, Marcus Norrgård and Niklas Bruun (eds), *Transitions in European Patent Law: Influences of the Unitary Patent Package* (Wolters Kluwer, 2015), 220.

[140] Relevant examples here are the EU Charter of Fundamental Rights of the European Union (2000/C 364/1) and the Enforcement Directive. Based on these two instruments, the CJEU could develop a general framework for the allocation of entitlements by courts in case of conflicting fundamental rights. After all, intellectual property rights are also included in the EU Charter. Article 17(2) of the EU Charter reads: 'Intellectual property shall be protected.' This issue will be further explored in this thesis below.

[141] Maria Aranzazu Gandia Sellens, 'The viability of the unitary patent package after the UK's ratification of the Agreement on a Unified Patent Court' (2018) International Review of Intellectual Property and Competition Law 49:2 136, 138.

[142] Case C-414/11 *Daiichi Sankyo Co. Ltd and Sanofi-Aventis Deutschland GmbH v. DEMO Anonymos Viomichaniki kai Emporiki Etairia Farmakon* [2013] ECLI:EU:C:2013:520, paras. 48, 53, 58-60; Nari Lee, 'Adding Fuel to Fire: A Complex Case of Unifying Patent Limitations and Exceptions through the EU Patent Package' in Rosa Maria Ballardini, Marcus Norrgård and Niklas Bruun (eds), *Transitions in European Patent Law: Influences of the Unitary Patent Package* (Wolters Kluwer, 2015), 223-224.

repercussions for the UPC Agreement: Article 25 of the UPC Agreement is simply a reproduction of Article 28(1) of the TRIPS Agreement.[143] Consequently, it cannot be concluded with certainty that the CJEU will not be able to draw substantive patent law into its sphere of competence to some extent via these articles.

Apart from the UPC and CJEU, there are also the EPOrg's Boards to consider. As previously mentioned, it is possible for holders of (pending applications for) European patents at the time of entry into force of the UPC Agreement to opt-out of the UPC's jurisdiction for an initial transitional period of seven years.[144] For those patentees or applicants who choose to do so, this means that questions of validity can be brought (against them) before national courts or the Boards of the EPOrg.

I.4. THE UNITARY PATENT AS AN ENTITLEMENT

I.4.1. The entitlement under the UPC

As the main substantive provisions were moved from the Unitary Patent Regulation to the UPC Agreement, the rights conferred by the unitary patent as an entitlement are now largely subject to the UPC Agreement and the UPC's decisions. Unfortunately, they are still quite limited and seem to clearly favour the patentee compared to third parties.[145] Of significance are Articles 25-29 of the UPC Agreement, as they define the exclusivity of the unitary patent.[146]

First, the unitary patent is framed as bestowing on its proprietor the right to prevent certain acts performed by third parties with regard to the patented subject-matter without the proprietor's authorisation.[147] This means it also defines what an infringement constitutes. It encompasses all regular uses under commercial exploitation, namely 'making, offering, placing on the market or using […], or importing or storing […] for those purposes' a patented product, as well as employing a patented process or 'offering it for use'.[148] In addition, the protection following a process patent is extended to products directly resulting from this process,[149] which corresponds to an obligation under the EPC.[150] Moreover, assisting in infringing activities via delivering, or offering to, the means to an unauthorised third party is also included in cases in which the supplier knows or should have known the purpose of those means.[151] Such means must pertain to a key element of the patented subject-matter and not be of a 'staple commercial' nature.[152] The proprietor of a unitary patent is thus granted a very broadly framed set of exclusive rights.

However, there are limitations and exceptions. Some categories of use are excluded, namely private and non-commercial acts, experimental use, the preparation of extemporaneous medication by pharmacies for individuals upon medical prescription, 'the use of biological material for the purpose of breeding, or discovering and developing other plant varieties', the use or presence of protected subject-matter on board vessels, airplanes,[153] land vehicles or other means of transportation under certain

---

[143] Article 5 of the Unitary Patent Regulation covers the concept of "uniform protection", whereas both Article 25 of the UPC Agreement and Article 28(1) of the TRIPS Agreement cover the rights conferred by the (unitary) patent.

[144] This transitional period may be extended for another term of seven years by the Administrative Committee. Michael Christian Alexander, *Cross-border Patent Infringement Litigation within the European Union* (Ulrik Huber Institute for Private International Law, 2015), 511.

[145] Hanns Ullrich, 'Harmonizing Patent Law: The Untamable Union Patent' [2012] Max Planck Institute for Intellectual Property and Competition Law Research Paper No. 12-03, 33. Nari Lee, 'Adding Fuel to Fire: A Complex Case of Unifying Patent Limitations and Exceptions through the EU Patent Package' in Rosa Maria Ballardini, Marcus Norrgård and Niklas Bruun (eds), *Transitions in European Patent Law: Influences of the Unitary Patent Package* (Wolters Kluwer, 2015), 216.

[146] Hanns Ullrich, 'Enhanced Cooperation in the Area of Unitary Patent Protection and European Integration' (2013) ERA Forum 13:4, 602.

[147] In accordance with Article 28(1) of the TRIPS Agreement.

[148] Article 25(a) and (b) of the UPC Agreement.

[149] Article 25(c) of the UPC Agreement.

[150] Article 64(2) of the EPC.

[151] Article 26(1) of the UPC Agreement.

[152] Article 26(1) and (2) of the UPC Agreement.

[153] Article 26(1)(g) and (h) of the UPC Agreement and Article 27 of the Convention on International Civil Aviation 1944.

circumstances,[154] studies and trials necessary for marketing permission of veterinary and human medicinal products within the context of Article 13(6) of the Veterinary Medicinal Products Directive and Article 10(6) of the Medicinal Products for Human Use Directive,[155] farmers' privilege and breeders exemption,[156] the reproduction, decompilation and any alteration of a computer program within the meaning of Articles 5 and 6 of the Software Directive,[157] and finally, 'the propagation or multiplication of biological material placed on the [internal] market … necessarily [resulting] from the application for which the biological material was marketed'.[158] Therefore, the patent proprietor cannot enforce his rights against such uses. While this list includes some important limitations, there are some notable absences such as the free transit of goods and an exception covering compulsory licensing.[159]

In addition, the UPC Agreement addresses the prior-use right.[160] Third parties who were already using, preparing to do so, or possessed the invention (partly) covered by a unitary patent prior to its publication can apply for a prior-user right in cases where the invention and its use were not yet public knowledge.[161] It protects them against infringement claims and allows them to continue using the protected subject-matter as they were. Even though the majority of EU Member States have provided for a prior-use right in some form,[162] it is unfortunate that such an important exception is reserved for domestic law of the participating Member States. These third parties are now put at a real disadvantage because they have to clear this right per participating Member State and may not be able to obtain this right in the majority of them.[163] This is especially troubling considering the main justification for having a patent system and its requirements (i.e. novelty).[164] The patent proprietor is rewarded with a patent covering the entire unitary-patent area for an innovative contribution already out there, simply because the information was not open to the public and the proprietor applied for a patent (first).

Last but not least, there is the concept of exhaustion. Interestingly, the only patent addressed in this context by the UPC Agreement is the European patent.[165] Exhaustion of the unitary patent is dealt with in the Unitary Patent Regulation,[166] thereby explicitly placed within the CJEU's competence. For completeness and coherence, these provisions will be discussed here in tandem. The wording in these instruments is virtually the same. In fact, there are only two notable differences. First, the provision in the Unitary Patent Regulation additionally limits exhaustion to acts performed in the unitary-patent area, thereby excluding the territories of participating Member States that have not yet ratified the UPC Agreement.[167] Second, it defines the market on which the product containing protected subject-matter must have been placed prior to the relevant conduct as 'the Union', as opposed to 'the European Union' in the UPC Agreement's provision. Unfortunately, the Unitary Patent Regulation does not clarify what

[154] Based on Article 5*ter* of the Paris Convention.
[155] Article 13(6) of Directive 2001/82/EC of 6 November 2001 on the Community code relating to veterinary medicinal products [2001] OJ L311/1; Article 10(6) of Directive 201/83/EC of 6 November 2001 on the Community code relating to medicinal products for human use [2001] OJ L311/67.
[156] Annette Kur and Thomas Dreier, *European Intellectual Property Law* (Edward Elgar Publishing 2013), 118.
[157] Directive 2009/24/EC of 23 April 2009 on the legal protection of computer programs [2009] OJ L111/16.
[158] Article 27(a)-(l) of the UPC Agreement.
[159] Nari Lee, 'Adding Fuel to Fire: A Complex Case of Unifying Patent Limitations and Exceptions through the EU Patent Package' in Rosa Maria Ballardini, Marcus Norrgård and Niklas Bruun (eds), *Transitions in European Patent Law: Influences of the Unitary Patent Package* (Wolters Kluwer, 2015), 218.
[160] Article 28 of the UPC Agreement.
[161] Avgi Kaisi, 'Finally a single European right for the EU? An analysis of the substantive provisions of the European patent with unitary effect' (2014) European Intellectual Property Review 36:3 170, 175.
[162] Avgi Kaisi, 'Finally a single European right for the EU? An analysis of the substantive provisions of the European patent with unitary effect' (2014) European Intellectual Property Review 36:3 170, 175.
[163] Avgi Kaisi, 'Finally a single European right for the EU? An analysis of the substantive provisions of the European patent with unitary effect' (2014) European Intellectual Property Review 36:3 170, 175.
[164] Articles 54, 56 and 57 of the EPC.
[165] Article 29 of the UPC Agreement.
[166] Article 6 of the Unitary Patent Regulation.
[167] Avgi Kaisi, 'Finally a single European right for the EU? An analysis of the substantive provisions of the European patent with unitary effect' (2014) European Intellectual Property Review 36:3 170, 177.

the 'Union' entails, but it was undoubtedly a conscious decision to divert from the wording chosen in the UPC Agreement's provision. Whether this will have significance in practice is unlikely due to the reference in the EU treaties to the EU as 'Union' and the CJEU's legal doctrine of exhaustion.[168] Based on considerations concerning the free movement of goods within the internal market, the ECJ interpreted Article 36 of the TFEU narrowly in *Deutsche Grammophon.*[169] While this was a copyright case, the essence of the ECJ's argument is that 'Article 36 [of the TFEU] can only be invoked to safeguard the *specific subject matter* of intellectual property rights, and that the possibility of opposing importation of goods which were distributed *by the proprietor or with his consent* on other territories within the common market does, in principle, *not* form part of that specific subject matter.'[170] Consequently, European Union law prevents exhaustion of intellectual property rights within the European Union not covering the internal market in its entirety (absent exceptional circumstances).

I.4.2. The UPC and other legal sources

Clearly, the UPC Agreement does not waste words on what rights are conferred by the grant of a unitary patent and how they may be exercised. The provisions addressing such issues are either a reproduction of a pre-existing article or refer to national law. It would not be feasible to look into the national law of all the participating Member States, but it is to take stock of the relevant legal instruments binding on the participating Member States. By virtue of Article 24(1)(a)-(d) of the UPC Agreement, these instruments will also form the sources of law on which the UPC shall base its decisions. A few other legal instruments will remain relevant - to various degrees - in determining the scope of the entitlement. The main legal sources dealt with in this section are the EPC, the Unitary Patent Regulation, the Paris Convention, the TRIPS Agreement and the EU Charter of Fundamental Rights (hereinafter: EU Charter) and the European Convention on Human Rights of 1950 (hereinafter: ECHR).

While the EPC takes a centre position in the grant of the unitary patent, this instrument is not of much relevance for the scope of the entitlement afterwards.[171] However, there are a few notable exceptions. First, it sets the term of protection at twenty years from the day of application.[172] Furthermore, Article 69 of the EPC and its Protocol[173] will also remain unaffected by the UPC Agreement.[174] This provision and its Protocol provide that the scope of the subject-matter protected by the patent is to be determined based on a balanced assessment of the claims, supplemented by the description and drawings.[175] There have been disparities in application from one EU Member State to another in terms of how the description and drawings are weighed in assessing the claims.[176] Clearly,

---

[168] Nari Lee, 'Adding Fuel to Fire: A Complex Case of Unifying Patent Limitations and Exceptions through the EU Patent Package' in Rosa Maria Ballardini, Marcus Norrgård and Niklas Bruun (eds), *Transitions in European Patent Law: Influences of the Unitary Patent Package* (Wolters Kluwer, 2015), 223.

[169] Case 78/70 *Deutsche Grammophon v Metro SB* [1971] ECR 487, paras. 7 and 12.

[170] Annette Kur and Thomas Dreier, *European Intellectual Property Law* (Edward Elgar Publishing 2013), 47.

[171] Nari Lee, 'Adding Fuel to Fire: A Complex Case of Unifying Patent Limitations and Exceptions through the EU Patent Package' in Rosa Maria Ballardini, Marcus Norrgård and Niklas Bruun (eds), *Transitions in European Patent Law: Influences of the Unitary Patent Package* (Wolters Kluwer, 2015), 214.

[172] Article 63(1) EPC, although prolongation is possible *inter alia* via supplementary protection certificates. Annette Kur and Thomas Dreier, *European Intellectual Property Law* (Edward Elgar Publishing 2013), 122-123.

[173] Protocol on the Interpretation of Article 69 EPC. The Protocol forms an integral part of this convention based on Article 164(1) of the EPC.

[174] Annette Kur and Thomas Dreier, *European Intellectual Property Law* (Edward Elgar Publishing 2013), 117.

[175] Article 1 of the Protocol.

[176] Clement Salung Petersen, Thomas Riis and Jens Schovsbo, 'The Unified Patent Court (UPC) in Action' in Rosa Maria Ballardini, Marcus Norrgård and Niklas Bruun (eds), *Transitions in European Patent Law: Influences of the Unitary Patent Package* (Wolters Kluwer, 2015), 52. See, for instance, the different approaches to the doctrine of equivalence under Article 69 of the EPC in the German and British Epilady cases: Decision of the Düsseldorf Court of Appeals (Oberlandesgericht) November 21, 1991 – Case No. 2 U 27/89, 23 IIC 838 (1993) and; *Improver Corporation v Remington Consumer Product Limited* [1990] F.S.R. 181.

this article and its protocol also leave a margin of discretion to courts,[177] however, the Protocol prevents the 'extremes'.[178] It will be interesting to see what approach the UPC will take.

In addition to the EPC, the Unitary Patent Regulation is also relevant. While the main substantive provisions were moved, it has retained some provisions related to the scope and limitations of the unitary patent.[179] First, uniform protection is given to the unitary patent throughout the unitary-patent area[180].[181] Second, with the notable exception of licenses, the unitary patent is made indivisible.[182] The unitary patent can only be revoked or limited with respect to the entire unitary-patent area, but licences may be granted for all the participating Member States or only a part thereof.[183] Third, it indicates that the unitary patent is not unlimited.[184] While it is not made implicit, this seems to refer to the specified types of uses inherent to the unitary patent as an entitlement as described in Article 25 of the UPC Agreement.[185] However, it only makes reference to limitations to the patent, not to exceptions.[186] The scope of limitations to the unitary patent shall be uniform in all participating Member States via the applicability of a single domestic substantive patent law mainly determined based on residence or principal place of business.[187] While this does mean that some degree of uniformity of law is created, this is only so for the patent and mostly in favour of the patentee.[188] With some important limitations and exceptions largely left to the participating Member States, third parties will have to deal with legal concepts such as prior-user rights and compulsory licenses based on the law of each

---

[177] Avgi Kaisi, 'Finally a single European right for the EU? An analysis of the substantive provisions of the European patent with unitary effect' (2014) European Intellectual Property Review 36:3 170, 174.

[178] Annette Kur and Thomas Dreier, *European Intellectual Property Law* (Edward Elgar Publishing 2013), 115-116.

[179] Hanns Ullrich, 'Harmonizing Patent Law: The Untamable Union Patent' [2012] Max Planck Institute for Intellectual Property and Competition Law Research Paper No. 12-03, 32.

[180] In this thesis, the unitary-patent area refers to the territories in which participating Member States have both signed and ratified the UPC Agreement. After the conditions of Article 89 of the UPC Agreement are met for the entry into force of the Unitary Patent Package, the unitary patent will only have effect in the participating Member States that have both signed and ratified the UPC Agreement at that time.

[181] Article 2(2), first and second paragraph, of the Unitary Regulation.

[182] Articles 3(3) and 2(2), third paragraph, of the Unitary Patent Regulation.

[183] Article 3(2) of the Unitary Patent Regulation. In this thesis, the unitary-patent area refers to the territories in which participating Member States have both signed and ratified the UPC Agreement. After the conditions of Article 89 of the UPC Agreement are met for the entry into force of the Unitary Patent Package, the unitary patent will only have effect in the participating Member States that have both signed and ratified the UPC Agreement at that time.

[184] Article 5(1) of the Unitary Patent Regulation.

[185] As pointed out by both Ullrich and Kaisi, Article 5(3) of the Unitary Patent Regulation refers to the national law of the participating Member State which will govern the unitary patent in question, including the definition of limitations and infringements. This is mitigated by Recital 9, through which *inter alia* the UPC Agreement, as an international convention accepted by the participating Member States, will govern the unitary patent. The unitary patent is thus governed by domestic law to the extent that the UPC Agreement says so. Hanns Ullrich, 'Enhanced Cooperation in the Area of Unitary Patent Protection and European Integration' (2013) ERA Forum 13:4, 601; Avgi Kaisi, 'Finally a single European right for the EU? An analysis of the substantive provisions of the European patent with unitary effect' (2014) European Intellectual Property Review 36:3 170, 178-179.

[186] Article 5(1)-(4) of the Unitary Patent Regulation. Recital 7 and Articles 3(2), second paragraph, also speak of limitations, but it can be inferred from the wording that the reference to limitations here is to be understood as an amendment limiting the patent in terms of Article 138(3) of the EPC.

[187] Article 5(2) and (3) of the Unitary Patent Regulation and Article 24(1)(e) of the UPC Agreement. Which domestic law will govern the unitary patent is determined based on a link according to (a) residence or principal place of business on the date of filing of the application for the European patent, or (b) where point (a) does not apply, a previous place of business on the date of filing of the application for the European patent. Article 7(1)(a) and (b) of the Unitary Patent Regulation. If neither applies to an applicant, the unitary patent shall be defined by German substantive patent law. Article 7(3) of the Unitary Patent Regulation and Article 6(1) of the EPC. The latter will thus play a prominent role in the unitary-patent area as it applies to both unitary patents of applicants with a link to Germany based on (a) or (b) as for those of non-EU applicants.

[188] Avgi Kaisi, 'Finally a single European right for the EU? An analysis of the substantive provisions of the European patent with unitary effect' (2014) European Intellectual Property Review 36:3 170, 177; Hanns Ullrich, 'Enhanced Cooperation in the Area of Unitary Patent Protection and European Integration' (2013) ERA Forum 13:4 589, 601; Nari Lee, 'Adding Fuel to Fire: A Complex Case of Unifying Patent Limitations and Exceptions through the EU Patent Package' in Rosa Maria Ballardini, Marcus Norrgård and Niklas Bruun (eds), *Transitions in European Patent Law: Influences of the Unitary Patent Package* (Wolters Kluwer, 2015), 224; Reto M. Hilty and Others, 'The Unitary Patent Package: Twelve Reasons for Concern' [2012] Max Planck Institute for Innovation and Competition Research Paper No. 12-12, 3.

participating Member State.[189] The unitary patent may be more vulnerable since it stands or falls for the entire unitary-patent area, but third parties are put at a significant disadvantage in case of valid patents.[190]

Furthermore, the Member States are bound by the Paris Convention and the TRIPS Agreement. Both cover patent law.[191] The Paris Convention does not contain much additional information on the scope of patents nor their limitations or exceptions, except on compulsory licensing.[192] The TRIPS Agreement went further, giving minimum standards for the rights conferred.[193] It provides for a benchmark from which its members can choose to provide for 'more extensive protection … provided that such protection does not contravene the provisions of this Agreement.'[194] This broadly phrased obligation acts both as a floor and a ceiling in terms of the scope of protection, the limitations and exceptions thereto, as well as for enforcement. The latter will be discussed in Part II. In addition, it contains the important three-steps test for its members to determine whether national limitations and exceptions are compatible with their obligations under the TRIPS Agreement.[195] However, it is EU law that provides the European patent with unitary effect.[196] Therefore, it is questionable whether the primacy of EU law permits the participating Member States to individually provide or introduce limitations or exceptions not provided for at the EU level or via the UPC Agreement.[197] After all, limitations and exceptions affect the essence of the exclusive rights conferred.[198] Furthermore, they are likely to amount to an obstacle to the free movement of goods.[199] Nonetheless, the TRIPS Agreement still tells us something about how the scope of the rights conferred should be approached. First, it clearly states that the rights and obligations should be balanced.[200] Moreover, the exclusiveness of the rights conferred by a patent should be put in the context of public-interest considerations such as public health and nutrition, and social and economic welfare.[201] Furthermore, safeguards may be in order against the abuse of the rights conferred by patents or practices hampering legitimate trade or the transfer of technology.[202] This clearly illustrates that while the patent confers exclusive rights,[203] they are by no means absolute. Instead, the TRIPS Agreement seems to advocate a more case-specific analysis rather than a general approach. This will have to be considered by the UPC in its decisions.[204]

In addition, there is also the matter of fundamental rights. The EU recognises two fundamental rights instruments explicitly, namely the EU Charter and the ECHR.[205] As intellectual property is generally approached as a type of property in Europe, it has been included as a second paragraph to the property provision in the EU Charter. Moreover, the property provision of the Protocol to the ECHR

---

[189] Article 28 of the UPC Agreement and Recital 10 of the Unitary Patent Regulation.
[190] Reto M. Hilty and Others, 'The Unitary Patent Package: Twelve Reasons for Concern' [2012] Max Planck Institute for Innovation and Competition Research Paper No. 12-12, 3; Hanns Ullrich, 'Harmonizing Patent Law: The Untamable Union Patent' [2012] Max Planck Institute for Intellectual Property and Competition Law Research Paper No. 12-03, 38-39.
[191] Annette Kur and Thomas Dreier, *European Intellectual Property Law* (Edward Elgar Publishing 2013), 19 and 25.
[192] Daniel Krauspenhaar, *Liability Rules in Patent Law: A Legal and Economic Analysis* (1st edn, Springer-Verlag Berlin Heidelberg, 2015), 62.
[193] Article 28 of the TRIPS Agreement.
[194] Article 1(1) of the TRIPS Agreement.
[195] Article 30 of the TRIPS Agreement.
[196] Article 118 of the TFEU.
[197] Articles 2(2) and 4 of the TFEU; Reto M. Hilty and Others, 'The Unitary Patent Package: Twelve Reasons for Concern' [2012] Max Planck Institute for Innovation and Competition Research Paper No. 12-12, 5-6; Hanns Ullrich, 'Harmonizing Patent Law: The Untamable Union Patent' [2012] Max Planck Institute for Intellectual Property and Competition Law Research Paper No. 12-03, 39-40.
[198] Hanns Ullrich, 'Harmonizing Patent Law: The Untamable Union Patent' [2012] Max Planck Institute for Intellectual Property and Competition Law Research Paper No. 12-03, 39-40.
[199] Article 36 of the TFEU.
[200] Article 7 of the TRIPS Agreement.
[201] Articles 7 and 8(1) and (2) of the TRIPS Agreement.
[202] Article 8(2) of the TRIPS Agreement.
[203] Article 27(1) of the TRIPS Agreement.
[204] Article 24(1)(d) of the UPC Agreement.
[205] Article 6(1) and (3) of the TEU.

has been interpreted as including intellectual property,[206] and the European Court on Human Rights (hereinafter: ECtHR) has been active in this area of law.[207] Interestingly, the relevant provisions of the EU Charter and ECHR do not require patents to be upheld as exclusive rights by the legislator due to *inter alia* the emphasis on the public interest.[208] While Article 17(2) of the EU Charter contains very strong language, Krauspenhaar observes that a '[consensus] exists … that this provision only takes the increasing importance of [intellectual property] into account' next to the protection of "regular" property.[209] The Member States should, however, make sure that the proprietor will receive an adequate compensation.[210]

PART II. PATENT ENFORCEMENT

II.1. THE CHOICE OF RULES

II.1.1. Enforcement under the framework

Having looked into the reasons for the allocation of entitlements both in general and in the context of patent systems, and more importantly, what a (unitary) patent as an entitlement entails, it is time to analyse how this is translated to their enforcement. The enforceability of entitlements is vital, because without it, an entitlement does not have much value. Some degree of state intervention is required to avoid the "might makes right" issue.[211] Calabresi and Melamed distinguish three categories of rules in their framework to protect an entitlement: property rules, liability rules and inalienability rules. This brings us to the second question asked by Calabresi and Melamed in their framework after the initial choice is made for the entitlement: 'In what circumstances should we decide to protect that entitlement by using a property, liability, or inalienability rule?'[212] While the manner of protection of entitlements to goods is often a mix of these rules, this somewhat simplistic categorisation, nevertheless, holds value because it reveals why certain entitlements are protected the way they are.[213] Their framework offers a very apt general law and economics approach for that analysis.[214]

So, what are property, liability and inalienability rules? For the purpose of this thesis, inalienability rules hold the least value. In short, such rules aim at prohibiting a transfer of an entitlement, irrespective of the willingness of the parties.[215] Protection by this rule involves the highest

---

[206] Article 17(2) of the EU Charter and Article 1 of the Protocol to the Convention for the Protection of Human Rights and Fundamental Freedoms. The ECtHR and its former Commission of Human Rights have interpreted the provision of the ECHR in question to cover patents in ECommHR, *Smith Kline & French Lab. Ltd. v. the Netherlands* (dec.), no. 12633/87, 4 October 1990, CE:ECHR:1990:1004DEC001263387, and; ECommHR, *Lenzing AG v. the United Kingdom* (dec.), no. 38817/97, 9 September 1998, CE:ECHR:1998:0909DEC003881797, para 2.

[207] For an insightful overview, see Christophe Geiger and Elena Izyumenko, 'Intellectual Property before the European Court of Human Rights' [2018] Center for International Intellectual Property Studies (CEIPI) Research Paper No. 2018-01.

[208] Daniel Krauspenhaar, *Liability Rules in Patent Law: A Legal and Economic Analysis* (1st edn, Springer-Verlag Berlin Heidelberg, 2015), 70.

[209] Daniel Krauspenhaar, *Liability Rules in Patent Law: A Legal and Economic Analysis* (1st edn, Springer-Verlag Berlin Heidelberg, 2015), 69; The right to enjoyment of property is covered by Article 17(1) of the EU Charter.

[210] Daniel Krauspenhaar, *Liability Rules in Patent Law: A Legal and Economic Analysis* (1st edn, Springer-Verlag Berlin Heidelberg, 2015), 70.

[211] Guido Calabresi and A. Douglas Melamed, 'Property Rules, Liability Rules, and Inalienability: One View of the Cathedral' (1972) Harvard Law Review 85:6 1089, 1090.

[212] Guido Calabresi and A. Douglas Melamed, 'Property Rules, Liability Rules, and Inalienability: One View of the Cathedral' (1972) Harvard Law Review 85:6 1089, 1093.

[213] Guido Calabresi and A. Douglas Melamed, 'Property Rules, Liability Rules, and Inalienability: One View of the Cathedral' (1972) Harvard Law Review 85:6 1089, 1092-1093. Daniel Krauspenhaar, *Liability Rules in Patent Law: A Legal and Economic Analysis* (1st edn, Springer-Verlag Berlin Heidelberg, 2015)., 16.

[214] Daniel Krauspenhaar, *Liability Rules in Patent Law: A Legal and Economic Analysis* (1st edn, Springer-Verlag Berlin Heidelberg, 2015), 17.

[215] The example they use in their paper is that a house owner, despite his willingness to sell, cannot sell his house, while drunk, to a willing buyer. Another example is the sale of organs of living donors, which is still illegal in many countries. Guido Calabresi and A. Douglas Melamed, 'Property Rules, Liability Rules, and Inalienability: One View of the Cathedral' (1972)

degree of state intervention, because the state determines who is entitled, under what circumstances - if at all - the entitlement may be transferred, and the compensation due if the entitlement is seized or ruined.[216] While such rules are present in patent law in some shape or form, property and liability rules are arguably more relevant for the analysis of the enforcement of patents.[217] They also take a more prominent role in Calabresi and Melamed's framework. The framework consists of four rules of application in total: two property rules (rules one and three) and two liability rules (rules two and four).[218]

If an entitlement is protected by a property rule, this means that the state allocates the entitlement, but then leaves it up to the owner to decide whether he or she wants to sell it via a voluntary transaction at a value determined by the parties.[219] If a third party uses the invention without the consent of the patent proprietor, the proprietor can ask the court to enforce his or her right.[220] Judicial enforcement of a patent via a property rule means that the patent proprietor is either granted or denied an injunction against the other party.[221] For instance, if the court establishes an infringement and grants an injunction, the court essentially allows the proprietor to exclude the infringer from using his or her entitlement.[222] This is rule one under Calabresi and Melamed's framework.[223] If the court finds there is no infringement and denies the injunction, the court allocates the initial entitlement to the other party.[224] This is rule three.[225] If the legislator or court decides to protect an entitlement via a liability rule, the key remedy is damages.[226] This means state intervention covers both the allocation of the entitlement and determining the value of the entitlement.[227] Under rule two, the initial entitlement is located with the patent proprietor, but the infringer is allowed to keep using the protected subject-matter of a patent

---

Harvard Law Review 85:6 1089, 1092; Daniel Krauspenhaar, *Liability Rules in Patent Law: A Legal and Economic Analysis* (1st edn, Springer-Verlag Berlin Heidelberg, 2015), 14.

[216] Guido Calabresi and A. Douglas Melamed, 'Property Rules, Liability Rules, and Inalienability: One View of the Cathedral' (1972) Harvard Law Review 85:6 1089, 1092-1093, 1111.

[217] Daniel Krauspenhaar, *Liability Rules in Patent Law: A Legal and Economic Analysis* (1st edn, Springer-Verlag Berlin Heidelberg, 2015), 14.

[218] Guido Calabresi and A. Douglas Melamed, 'Property Rules, Liability Rules, and Inalienability: One View of the Cathedral' (1972) Harvard Law Review 85:6 1089, 1116, 1120.

[219] Guido Calabresi and A. Douglas Melamed, 'Property Rules, Liability Rules, and Inalienability: One View of the Cathedral' (1972) Harvard Law Review 85:6 1089, 1093, 1105; Andrew W. Torrance and Bill Tomlinson, 'Property Rules, Liability Rules, and Patents: One Experimental View of the Cathedral' (2011) 14 Yale J.L. & Tech. 138, 144.

[220] Guido Calabresi and A. Douglas Melamed, 'Property Rules, Liability Rules, and Inalienability: One View of the Cathedral' (1972) Harvard Law Review 85:6 1089, 1093.

[221] Andrew W. Torrance and Bill Tomlinson, 'Property Rules, Liability Rules, and Patents: One Experimental View of the Cathedral' (2011) 14 Yale J.L. & Tech. 138, 146.

[222] Dan L. Burk, 'Critical Analysis: Property Rules, Liability Rules, and Molecular Futures - Bargaining in the Shadow of the Cathedral' in Geertrui Van Overwalle (ed), *Gene Patents and Clearing Models: From Concepts to Cases* (Cambridge University Press, 2009), 298; Daniel Krauspenhaar, *Liability Rules in Patent Law: A Legal and Economic Analysis* (1st edn, Springer-Verlag Berlin Heidelberg, 2015), 13-14.

[223] Guido Calabresi and A. Douglas Melamed, 'Property Rules, Liability Rules, and Inalienability: One View of the Cathedral' (1972) Harvard Law Review 85:6 1089, 1116.

[224] Dan L. Burk, 'Critical Analysis: Property Rules, Liability Rules, and Molecular Futures - Bargaining in the Shadow of the Cathedral' in Geertrui Van Overwalle (ed), *Gene Patents and Clearing Models: From Concepts to Cases* (Cambridge University Press, 2009), 298.

[225] Guido Calabresi and A. Douglas Melamed, 'Property Rules, Liability Rules, and Inalienability: One View of the Cathedral' (1972) Harvard Law Review 85:6 1089, 1116.

[226] Andrew W. Torrance and Bill Tomlinson, 'Property Rules, Liability Rules, and Patents: One Experimental View of the Cathedral' (2011) 14 Yale J.L. & Tech. 138, 146; Daniel Krauspenhaar, *Liability Rules in Patent Law: A Legal and Economic Analysis* (1st edn, Springer-Verlag Berlin Heidelberg, 2015), 32.

[227] Guido Calabresi and A. Douglas Melamed, 'Property Rules, Liability Rules, and Inalienability: One View of the Cathedral' (1972) Harvard Law Review 85:6 1089, 1092. As pointed out by Krauspenhaar, the damages do not have to be determined objectively by the court; if parties can agree on the sum in a settlement, the value of the entitlement is still bargained by the parties to the transaction. Daniel Krauspenhaar, *Liability Rules in Patent Law: A Legal and Economic Analysis* (1st edn, Springer-Verlag Berlin Heidelberg, 2015), 14. However, the value established in a settlement is driven up by the court if an infringement is already established. It may thus be argued that the value agreed upon in a settlement also constitutes an approximation of the value, since it is higher than what would have been if market forces would have controlled the bargaining.

by the court against payment to the patent proprietor.[228] While this essentially entails an authorisation by the court against the proprietor's wishes,[229] it is not an unfettered one. Apart from the required payment, such authorisation is typically subject to limitations, i.e. a set time or territory.[230] Under rule four, no infringement is found. The entitlement is allocated with the user, but this entitlement is only protected by a liability rule.[231] This means the patent proprietor may stop the user from using his or her invention by paying the user compensation. The first three rules were already around for a while before Calabesi and Melamed published their framework. While it is widely praised for the strength of its simplicity, structure and broad applicability to different areas of law, the real contribution is probably their introduction of the fourth rule.[232] They argued that, if the initial entitlement is allocated to the patent proprietor and could be enforced either via a property rule or a liability rule, this is also the case if the initial entitlement is allocated to the user.[233] Otherwise the framework would be incomplete. Other scholars have argued that there are more rules than just these four, but as Krauspenhaar pointed out, they are often very complex, sometimes academic rather than of practical value, and the majority of these can be brought back to just these four rules.[234] For that reason, these other theories will not be taken into consideration in the analysis conducted in the next subchapter.

II.1.2. Property rules vs liability rules

It is for the legislator and courts to decide which rules should be applied under what circumstances - as entitlements to goods are often protected by a mix of them - 'across the spectrum of potential legal disputes'.[235] Both property rules and liability rules are appropriate to protect the economic interests involved.[236] Based on economic efficiency, the choice between property and liability rules comes down to the balance between transaction costs and assessment costs.[237] Transaction costs entail the obstacles to bargaining between parties, whereas assessment costs refer to the difficulty faced by the court in obtaining and processing the information necessary to determine the value of the entitlement.[238] Unless the error costs are notably higher for one of the types of valuation costs, economic efficiency does not really favour the application of one rule over the other.[239] If transaction costs are high but assessments

---

[228] Guido Calabresi and A. Douglas Melamed, 'Property Rules, Liability Rules, and Inalienability: One View of the Cathedral' (1972) Harvard Law Review 85:6 1089, 1092 and 1116; Dan L. Burk, 'Critical Analysis: Property Rules, Liability Rules, and Molecular Futures - Bargaining in the Shadow of the Cathedral' in Geertrui Van Overwalle (ed), *Gene Patents and Clearing Models: From Concepts to Cases* (Cambridge University Press, 2009), 298-299.

[229] Andrew W. Torrance and Bill Tomlinson, 'Property Rules, Liability Rules, and Patents: One Experimental View of the Cathedral' (2011) 14 Yale J.L. & Tech. 138, 144.

[230] Dan L. Burk, 'Critical Analysis: Property Rules, Liability Rules, and Molecular Futures - Bargaining in the Shadow of the Cathedral' in Geertrui Van Overwalle (ed), *Gene Patents and Clearing Models: From Concepts to Cases* (Cambridge University Press, 2009), 296.

[231] Guido Calabresi and A. Douglas Melamed, 'Property Rules, Liability Rules, and Inalienability: One View of the Cathedral' (1972) Harvard Law Review 85:6 1089, 1116 and 1120.

[232] Daniel Krauspenhaar, *Liability Rules in Patent Law: A Legal and Economic Analysis* (1st edn, Springer-Verlag Berlin Heidelberg, 2015), 17; James E. Krier and Stewart J. Schwab, 'Property Rules and Liability Rules: The Cathedral in Another Light' (1995) New York University Law Review 70 440, 442-443.

[233] Guido Calabresi and A. Douglas Melamed, 'Property Rules, Liability Rules, and Inalienability: One View of the Cathedral' (1972) Harvard Law Review 85:6 1089, 1116.

[234] Daniel Krauspenhaar, *Liability Rules in Patent Law: A Legal and Economic Analysis* (1st edn, Springer-Verlag Berlin Heidelberg, 2015), 16.

[235] Andrew W. Torrance and Bill Tomlinson, 'Property Rules, Liability Rules, and Patents: One Experimental View of the Cathedral' (2011) 14 Yale J.L. & Tech. 138, 145; [235] Dan L. Burk, 'Critical Analysis: Property Rules, Liability Rules, and Molecular Futures - Bargaining in the Shadow of the Cathedral' in Geertrui Van Overwalle (ed), *Gene Patents and Clearing Models: From Concepts to Cases* (Cambridge University Press, 2009), 295.

[236] Daniel A. Crane, 'Intellectual Liability' (2009) 88 Tex. L. Rev. 253, 254.

[237] James E. Krier and Stewart J. Schwab, 'Property Rules and Liability Rules: The Cathedral in Another Light' (1995) New York University Law Review 70 440, 453 and 459.

[238] James E. Krier and Stewart J. Schwab, 'Property Rules and Liability Rules: The Cathedral in Another Light' (1995) New York University Law Review 70 440, 453 and 455 and 467.

[239] James E. Krier and Stewart J. Schwab, 'Property Rules and Liability Rules: The Cathedral in Another Light' (1995) New York University Law Review 70 440, 455 and 459.

costs low, economic efficiency would lead us to the application of a liability rule.[240] If it is the other way around, property rules should be applied.[241] However, even though valuation costs may lead us to one category of rules, it does not necessarily indicate that the party who receives the entitlement actually values it more than the other party.[242] Furthermore, as previously mentioned, considerations of economic efficiency alone rarely determine the allocation of the entitlement.[243] This is also true for the manner of protection. Even if there is a clear preference for either property or liability rules based on valuation costs, the choice is made based on a combination of economic efficiency, distributional preferences and other justice reasons.[244]

Due to considerations of the last two categories, the property rule is strongly favoured for the protection of property rights. However, whether this is justified is not evident. First, the choice between property rules and liability rules in patent law is often seen as a choice between exclusivity and non-exclusivity.[245] In European patent law, patents are generally not seen as market tools but as "property",[246] and exclusivity is an important element of the patent's economic function.[247] This explains the strong preference in Europe for property rules as a general rule and the absence of default liability-rules.[248] However, even in the case of regular property rights, we can rarely speak of a "pure property regime".[249] There are always limitations and/or exceptions to the exclusivity; patents as an entitlement are no different in this respect.[250]

Another argument used against liability rules is that it would have the effect of rewarding a "thief".[251] However, as pointed out in the introduction, the inefficiencies of patent systems are complex and ever increasing. To illustrate, the number of patents granted each year since 1980 has increased exponentially, leading to a thickening patent landscape in multiple industries.[252] In ICT, for example, a firm wanting to bring a smartphone on the market will have to clear hundreds of patents on parts

---

[240] James E. Krier and Stewart J. Schwab, 'Property Rules and Liability Rules: The Cathedral in Another Light' (1995) New York University Law Review 70 440, 467; Daniel A. Crane, 'Intellectual Liability' (2009) 88 Tex. L. Rev. 253, 270.

[241] James E. Krier and Stewart J. Schwab, 'Property Rules and Liability Rules: The Cathedral in Another Light' (1995) New York University Law Review 70 440, 455; Andrew W. Torrance and Bill Tomlinson, 'Property Rules, Liability Rules, and Patents: One Experimental View of the Cathedral' (2011) 14 Yale J.L. & Tech. 138, 145.

[242] Guido Calabresi and A. Douglas Melamed, 'Property Rules, Liability Rules, and Inalienability: One View of the Cathedral' (1972) Harvard Law Review 85:6 1089, 1125-1126.

[243] Guido Calabresi and A. Douglas Melamed, 'Property Rules, Liability Rules, and Inalienability: One View of the Cathedral' (1972) Harvard Law Review 85:6 1089, 1093-1094.

[244] Guido Calabresi and A. Douglas Melamed, 'Property Rules, Liability Rules, and Inalienability: One View of the Cathedral' (1972) Harvard Law Review 85:6 1089, 1110 and 1123.

[245] Daniel Krauspenhaar, *Liability Rules in Patent Law: A Legal and Economic Analysis* (1st edn, Springer-Verlag Berlin Heidelberg, 2015), 14 and 32; Ugo Mattei, *Basic Principles of Property Law: A Comparative Legal and Economic Introduction* (Contributions in Legal Studies No. 93, Greenwood Press, 2000), 65.

[246] See, for instance, Reto M. Hilty, 'The Role of Enforcement in Delineating the Scope of IP Rights' [2015] Max Planck Institute for Innovation and Competition Research Paper No. 15-03, and; Alexander Peukert, 'Intellectual Property as an End in Itself?' (2011) E.I.P.R. 33 67.

[247] Ansgar Ohly, 'Three Principles of European IP Enforcement Law: Effectiveness, Proportionality, Dissuasiveness' in Josef Drexl and Hanns Ullrich (eds), *Technology and Competition: Contributions in Honour of Hanns Ullrich* (Larcier 2009) 259.

[248] Daniel Krauspenhaar, *Liability Rules in Patent Law: A Legal and Economic Analysis* (1st edn, Springer-Verlag Berlin Heidelberg, 2015), 32; Ansgar Ohly, 'Three Principles of European IP Enforcement Law: Effectiveness, Proportionality, Dissuasiveness' in Josef Drexl and Hanns Ullrich (eds), *Technology and Competition: Contributions in Honour of Hanns Ullrich* (Larcier 2009) 259.

[249] Dan L. Burk, 'Critical Analysis: Property Rules, Liability Rules, and Molecular Futures - Bargaining in the Shadow of the Cathedral' in Geertrui Van Overwalle (ed), *Gene Patents and Clearing Models: From Concepts to Cases* (Cambridge University Press, 2009), 295.

[250] Dan L. Burk, 'Critical Analysis: Property Rules, Liability Rules, and Molecular Futures - Bargaining in the Shadow of the Cathedral' in Geertrui Van Overwalle (ed), *Gene Patents and Clearing Models: From Concepts to Cases* (Cambridge University Press, 2009), 295.

[251] Guido Calabresi and A. Douglas Melamed, 'Property Rules, Liability Rules, and Inalienability: One View of the Cathedral' (1972) Harvard Law Review 85:6 1089, 1126.

[252] Dan L. Burk and Mark A. Lemley, *The Patent Crisis and How the Courts Can Solve It* (University of Chicago Press, Chicago 2009), 8 and 22.

necessary for its functioning,[253] which is both costly and time consuming.[254] This development thus has the potential to keep competitors from innovating or even merely entering markets, since each patent could stop the distribution of a larger product.[255] Even businesses that make a genuine effort not to infringe anyone's patents can unknowingly use an invention covered by a patent.[256] In these circumstances, innovation is frustrated by the very patent system that aims to stimulate it, while litigation becomes very lucrative.[257] Furthermore, as determined previously, the rights conferred are broad but not clear cut, and there are limitations, exceptions and considerations of public interest that may affect the scope and enforceability. In addition, the scope of the protected subject-matter of a patent is often difficult to determine. '[As] it will be less clear where one entitlement begins and another ends, or when and how new sets of entitlements might be triggered',[258] this invites disputes. Under these circumstances, honest traders find themselves more and more in proceedings brought against them for patent infringements, with the threat of an injunction looming.[259]

By protecting property rights solely via a property rule, overenforcement is inevitable.[260] This hampers innovation just as much as underenforcement.[261] Strong enforcement of the rights conferred by the patent increases its value. However, the manner and level of enforcement will, at some point, push the patent's value to exceed the cost of investing or inventing, thereby creating 'social deadweight losses'.[262] It then gives the proprietor of a patent excessive power in negotiations with potential licenses, allowing them to demand exorbitant fees.[263] Additionally, some businesses have discovered it is lucrative to make patent litigation a big part of their business model, instead of investing in follow-on innovation or even merely using the inventions covered by their patents. In some cases, the patent proprietor may even block innovation by others with his or her patent. Such circumstances are hardly inducive to innovation. While property rules are vital for the enforcement of patents, applying liability

---

[253] Dan L. Burk and Mark A. Lemley, *The Patent Crisis and How the Courts Can Solve It* (University of Chicago Press, Chicago 2009), 27; James Bessen and Michael J. Meurer, *Patent Failure: How Judges, Bureaucrats, and Lawyers Put Innovators at Risk* (Princeton University Press, Princeton 2008), 41.

[254] Dan L. Burk and Mark A. Lemley, *The Patent Crisis and How the Courts Can Solve It* (University of Chicago Press, Chicago 2009), 27, 29.

[255] Dan L. Burk and Mark A. Lemley, *The Patent Crisis and How the Courts Can Solve It* (University of Chicago Press, Chicago 2009), 18, 22, 26-30, 89; James Bessen and Michael J. Meurer, *Patent Failure: How Judges, Bureaucrats, and Lawyers Put Innovators at Risk* (Princeton University Press, Princeton 2008) 39-42, 138-139; Adam B. Jaffe and Josh Lerner, *Innovation and Its Discontents: How Our Broken Patent System Is Endangering Innovation and Progress, and What to Do About It* (Princeton University Press, Princeton, NJ 2004) 170.

[256] Ansgar Ohly, 'Three Principles of European IP Enforcement Law: Effectiveness, Proportionality, Dissuasiveness' in Josef Drexl and Hanns Ullrich (eds), *Technology and Competition: Contributions in Honour of Hanns Ullrich* (Larcier 2009) 259-260.

[257] Dan L. Burk and Mark A. Lemley, *The Patent Crisis and How the Courts Can Solve It* (University of Chicago Press, Chicago 2009), 28-30; James Bessen and Michael J. Meurer, *Patent Failure: How Judges, Bureaucrats, and Lawyers Put Innovators at Risk* (Princeton University Press, Princeton 2008), 138-139; Adam B. Jaffe and Josh Lerner, *Innovation and Its Discontents: How Our Broken Patent System Is Endangering Innovation and Progress, and What to Do About It* (Princeton University Press, Princeton, NJ 2004) 170.

[258] Dan L. Burk, 'Critical Analysis: Property Rules, Liability Rules, and Molecular Futures - Bargaining in the Shadow of the Cathedral' in Geertrui Van Overwalle (ed), *Gene Patents and Clearing Models: From Concepts to Cases* (Cambridge University Press, 2009), 296.

[259] Ansgar Ohly, 'Three Principles of European IP Enforcement Law: Effectiveness, Proportionality, Dissuasiveness' in Josef Drexl and Hanns Ullrich (eds), *Technology and Competition: Contributions in Honour of Hanns Ullrich* (Larcier 2009) 259-260.

[260] Ugo Mattei, *Basic Principles of Property Law: A Comparative Legal and Economic Introduction* (Contributions in Legal Studies No. 93, Greenwood Press, 2000), 65; Daniel A. Crane, 'Intellectual Liability' (2009) 88 Tex. L. Rev. 253, 271-272.

[261] Reto M. Hilty, 'The Role of Enforcement in Delineating the Scope of IP Rights' [2015] Max Planck Institute for Innovation and Competition Research Paper No. 15-03, 8-9; Daniel A. Crane, 'Intellectual Liability' (2009) 88 Tex. L. Rev. 253, 271-272.

[262] Daniel A. Crane, 'Intellectual Liability' (2009) 88 Tex. L. Rev. 253, 271-272.

[263] Daniel A. Crane, 'Intellectual Liability' (2009) 88 Tex. L. Rev. 253, 270.

rules more could avoid overprotection.[264] Consequently, it is necessary for the functioning of the patent system that patents are not enforced to the fullest extent.[265]

However, liability rules are not without their disadvantages either. Critique frequently expressed by legal scholars and economists is that liability rules in patent infringement cases lead to undercompensation.[266] Due to the difficulty with which the court may obtain the necessary information and the lack of technological expertise, the court would not be in a good position to determine an adequate sum of compensation.[267] A voluntary transaction between parties should, therefore, be preferred. Liability rules are often seen as a tool to correct a bargaining breakdown by approximating the "market" value of the entitlement.[268] However, it was Calabresi, himself, who later noted that it is incorrect to think of the value established solely in terms of correcting market failures; he notes that the damages under the liability rules may also serve as a way to bring about shifts in entitlements or even 'to approach criminal or regulatory law results'.[269] An example of polity-like objectives is the approach in the US to "non-practicing entities" since *eBay v MercExchange*. Due to the fact that they do not work the invention themselves but merely seek to license their patent, US courts generally consider it sufficient to grant damages rather than injunctive relief.[270] Calabresi argued that by analysing both the determined sum of the damages and the objectives it serves, a more accurate conclusion can be made about the appropriateness of the "price".[271]

Clearly, both rules have their benefits and disadvantages and the preference for one depends on multiple factors. If used appropriately, liability rules could be utilised to mitigate or even prevent some of the negative effects caused by overenforcement in patent infringement cases. In the next subchapters, the analysis will focus on establishing the extent to which the UPC may choose to do so.

II.2. ENFORCEMENT BY WHOM?

While the UPC is said to have exclusive competence in matters covering infringement proceedings,[272] it is not evident that it will be the only one with a say in such matters. Due to link between the UPC Agreement and other legal instruments, as previously discussed to some extent, the CJEU, WTO panels, and even the ECtHR can all indirectly weigh in to some extent, one way or another.[273] The division of competence thus deserves some attention.

Some of the tensions between the CJEU and UPC have already been discussed to some extent, however, it is worthwhile to take another look in the context of enforcement. In addition to the UPC Agreement's recognising the primacy of EU law, the restraining effect of EU law can be inferred from

---

[264] Ugo Mattei, *Basic Principles of Property Law: A Comparative Legal and Economic Introduction* (Contributions in Legal Studies No. 93, Greenwood Press, 2000), 65.

[265] Reto M. Hilty, 'The Role of Enforcement in Delineating the Scope of IP Rights' [2015] Max Planck Institute for Innovation and Competition Research Paper No. 15-03, 4.

[266] Ansgar Ohly, 'Three Principles of European IP Enforcement Law: Effectiveness, Proportionality, Dissuasiveness' in Josef Drexl and Hanns Ullrich (eds), *Technology and Competition: Contributions in Honour of Hanns Ullrich* (Larcier 2009) 259; Daniel A. Crane, 'Intellectual Liability' (2009) 88 Tex. L. Rev. 253, 255 and 270.

[267] Ansgar Ohly, 'Three Principles of European IP Enforcement Law: Effectiveness, Proportionality, Dissuasiveness' in Josef Drexl and Hanns Ullrich (eds), *Technology and Competition: Contributions in Honour of Hanns Ullrich* (Larcier 2009) 259.

[268] Dan L. Burk, 'Critical Analysis: Property Rules, Liability Rules, and Molecular Futures - Bargaining in the Shadow of the Cathedral' in Geertrui Van Overwalle (ed), *Gene Patents and Clearing Models: From Concepts to Cases* (Cambridge University Press, 2009), 299.

[269] Guido Calabresi, 'A Broader View of the Cathedral: The Significance of the Liability Rule, Correcting a Misapprehension' (2014) Law & Contemp. Probs. 77:1 1, 5-10.

[270] See, for instance, Erik Hovenkamp & Thomas F. Cotter, *Anticompetitive Patent Injunctions* (2016) 100 Minn. L. Rev. 871, 875, and; Christopher B. Seaman, *Permanent Injunctions in Patent Litigation After* eBay (2016) 101 Iowa L. Rev. 1949, 1996–98.

[271] Guido Calabresi, 'A Broader View of the Cathedral: The Significance of the Liability Rule, Correcting a Misapprehension' (2014) Law & Contemp. Probs. 77:1 1, 5-10.

[272] Article 32(1)(a) of the UPC Agreement.

[273] Michael Christian Alexander, *Cross-border Patent Infringement Litigation within the European Union* (Ulrik Huber Institute for Private International Law, 2015), 33 and 512.

the liability scheme in case of infringements of EU law.[274] The participating Member States are liable, both individually and jointly, for infringements of EU law committed by the Court of Appeal.[275] While this is also relevant for validity questions as well as the scope of the rights conferred, there are more clear-cut EU legal instruments in the field of enforcement. For EU law, arguably the most important one is the Enforcement Directive. This legal instrument was adopted in 2004 because differences in enforcement by EU Member States persisted, despite international conventions on intellectual property such as the Paris Convention and the TRIPS Agreement.[276] The Enforcement Directive is a general enforcement-instrument for intellectual property, meaning it also applies to patents. It is one of the legal instruments that poses both a floor and a ceiling for enforcement by the UPC.[277] While it is true that the UPC has exclusive competence on enforcing unitary patents, it is hard to ignore the parallelism of certain provisions of the UPC Agreement with provisions of the Enforcement Directive, especially considering that the latter will remain to govern patents in the EU exempt from the UPC Agreement's scope. A clear example here is the provision of the UPC Agreement covering final injunctive relief, which is reminiscent of Article 11 of the Enforcement Directive. The interpretation of the former provision is clearly the prerogative of the CJEU. Due to similar provisions in these instruments, it could be easier to determine whether the UPC has infringed EU law. The liability scheme under the UPC Agreement is thus likely to be more relevant in the area of enforcement.

Moreover, the Unitary Patent Regulation is the EU legal instrument that has created the unitary patent.[278] The replacement in the Unitary Patent Regulation of most of the substantive provisions that were moved to the UPC Agreement (Article 5) is an open norm addressing in very general terms the unitary effect of the patent and the rights conferred. It does not even make an explicit reference to the provisions in the UPC Agreement on the matter. Looking at the history of the CJEU's case law, the judicial-activist tendencies of this court are evident.[279] Based on the Unitary Patent Regulation and the Enforcement Directive, which are both EU legal instruments, it is thus hardly unthinkable that the CJEU will attempt to fill in the blanks when presented with the opportunity. 'After all, EU law is autonomous, determined by the rule of law and incorporates a complete system of remedies for legal protection.'[280] If the rulings of the CJEU have taught us anything, it is that the CJEU will utilise an open norm in order to address the degree of individual legal protection.[281] In the case of the unitary patent, this will have consequences for its enforcement.

This is all the more likely due to the link of patent enforcement with issues from other areas of law. One of the main reasons for creating the UPC was to develop a specialised court, one that had the technological expertise to deal with patent cases and met the standards as an experienced legal institution.[282] This is the very reason for their mixed composition based on levels of experience and, depending on the case, the addition of technically qualified judges.[283] However, this exclusive competence is also cause for concern, because it also complicates cases in which *inter alia* incidental

[274] Maria Aranzazu Gandia Sellens, 'The viability of the unitary patent package after the UK's ratification of the Agreement on a Unified Patent Court' (2018) International Review of Intellectual Property and Competition Law 49:2 136, 147-148.
[275] Preamble and Article 23 of the UPC Agreement and Articles 258 to 260 of the TFEU.
[276] Recitals 7 and 8 of the Enforcement Directive.
[277] In Article 3 of the Enforcement Directive the limits to enforcement are laid down. It is reminiscent of Article 41(1) and (2) of the TRIPS Agreement. The only new element introduced in Article 3 is measures and remedies are to be proportional. These provisions will both be discussed more in-depth further down in the analysis.
[278] Articles 2(c), 5(1) and 1(1) of the Unitary Patent Regulation.
[279] Thomas Jaeger, 'Shielding the Unitary Patent from the ECJ: A Rash and Futile Exercise' (2013) International Review of Intellectual Property and Competition Law 44:4 389, 390.
[280] Thomas Jaeger, 'Shielding the Unitary Patent from the ECJ: A Rash and Futile Exercise' (2013) International Review of Intellectual Property and Competition Law 44:4 389, 390.
[281] Thomas Jaeger, 'Shielding the Unitary Patent from the ECJ: A Rash and Futile Exercise' (2013) International Review of Intellectual Property and Competition Law 44:4 389, 390.
[282] Hanns Ullrich, 'Harmonizing Patent Law: The Untamable Union Patent' [2012] Max Planck Institute for Intellectual Property and Competition Law Research Paper No. 12-03, 54.
[283] Articles 8, 9, 32 and 33 of the UPC Agreement.

contract law issues arise, or broader contextual questions.[284] The UPC is not the right forum for addressing important consequential issues of EU competition law or international trade due to its complicated relationship with the EU and the CJEU. First, a pro-patent bias is likely to develop.[285] Second, such areas of law are not its area of expertise.[286] Third, the exclusive competence of the UPC in cases involving infringement claims of the unitary patent and the obligation to refer questions only in case questions arise on the correct interpretation and application of EU law actually prevent the UPC from cooperating more with the CJEU, even if it would be open to that.[287] Therefore, it may affect the EU's approach to such an issue negatively, thereby exposing the participating Member States to liability issues. It is thus unfortunate that the influence of the CJEU is limited.

Furthermore, as was already mentioned a few times, there is the matter of interpreting the TRIPS Agreement. As found in Part I, its value for substantive patent law in EU Member States is likely to be limited in terms of the ability of Member States to provide for domestic limitations for the unitary patent due to free-movement considerations. However, this is different in the context of enforcement. The TRIPS Agreement arguably becomes more relevant in the context of enforcement due to the fact that it is a treaty under the WTO and that disparities in enforcement may have harmful effects for international trade. The other members of the WTO could bring cases against the participating Member States before a WTO panel if they think the UPC violates the TRIPS Agreement.[288] Careful consideration by the UPC of obligations in the context of enforcement under the relevant provisions in this instrument and their interpretation by WTO panels is thus imperative. What these obligations are in terms of the availability of injunctive relief will be discussed further below.

In addition, fundamental rights such as privacy, data protection, the right of expression and information and the right to conduct a business can get caught in the cross-fire when enforcing patent rights.[289] This means a patent-infringement case may amount to a balancing exercise of fundamental rights.[290] If the UPC violates a fundamental right in this exercise, the injured party may bring a claim for damages in the participating Member State where the damage occurred.[291] Furthermore, the participating Member State(s) can be held liable by the CJEU for violating EU law if a claim hereto is brought by the Commission or other Member States.[292] If the national route is exhausted or blocked,[293]

---

[284] Michael Christian Alexander, *Cross-border Patent Infringement Litigation within the European Union* (Ulrik Huber Institute for Private International Law, 2015), 513.

[285] Esther van Zimmeren, 'Patent Reforms at Both Sides of the Atlantic: An Analysis of the Patent Package and the America Invents Act through the Lens of 'Dynamic Patent Governance' in Rosa Maria Ballardini, Marcus Norrgård and Niklas Bruun (eds), *Transitions in European Patent Law: Influences of the Unitary Patent Package* (Wolters Kluwer, 2015), 27.

[286] Michael Christian Alexander, *Cross-border Patent Infringement Litigation within the European Union* (Ulrik Huber Institute for Private International Law, 2015), 513.

[287] Article 267 of the TFEU and Article 21 of the UPC Agreement.

[288] Article 258 of the TFEU. Whether they could also bring such a case against the EU is unclear. At first glance, this would not be possible. After all, the UPC is created by an international convention in which not all the EU Member States are participating. However, all its links to the EU and EU law that have been discussed already throughout this thesis could make the EU vulnerable to such a case. Moreover, as discussed earlier, the TRIPS Agreement is part of the EU legal order and falls as a whole in the area of common commercial policy. If the UPC would make a decision that is contrary to the TRIPS Agreement while applying EU law and the Commission would fail to address the issue of incompliance with the participating Member State(s), it is arguable that the EU has also failed to fulfil its duties under the TRIPS Agreement.

[289] See, for instance, on the balancing of such rights by the ECtHR, Christophe Geiger and Elena Izyumenko, 'Intellectual Property before the European Court of Human Rights' [2018] Center for International Intellectual Property Studies (CEIPI) Research Paper No. 2018-01.

[290] Martin Husovec, *Injunctions against Intermediaries in the European Union: Accountable but not Liable?* (Cambridge University Press, 2017), 103 and 131.

[291] Article 5(2) and (3) of the UPC Agreement. If the decision of the UPC violating a fundamental right was solely based on the UPC Agreement, domestic law or the ECHR may be invoked by the injured party. If the decision involved interpreting or applying EU law, the injured party could also invoke the EU Charter. The EU Charter is only applicable when Member States violate it in interpreting or applying EU law, which the UPC Agreement is not. The ECHR is not subject to such limitations.

[292] Articles 5(2) and (3) and 22 of the UPC Agreement. Alfredo Ilardi, *The New European Patent* (Hart Publishing, 2015), 52; Paul Craig and Gráinne De Búrca, *EU Law: Text, Cases and Materials* (5th edn, Oxford University Press, 2011), 381.

[293] Article 35 of the ECHR.

the injured party could turn to the ECtHR. While the UPC Agreement does not explicitly mention the ECHR, it is another international agreement 'applicable to patents and binding on all the Contracting Member States'.[294] The ECtHR's doctrinal presumption of compliance as developed in *Bosphorus*[295] may not hold up if the UPC had a margin of discretion under the UPC Agreement in the offensive part of the decision. Since the UPC is neither a state, nor an international organisation that has acceded to the ECHR, complaints cannot be brought against it directly.[296] However, the injured party might succeed in bringing a claim for the violation of his or her rights as protected by the ECHR against the member(s) of the Council of Europe which committed the violation or to which the violation is attributable. This additional exposure of participating Member States adds to the significance of the UPC's obligation to take other legal sources into consideration and respect them in its decision-making.

Finally, national courts also come into play under certain circumstances. Due to the fact that compulsory-license schemes are subject to domestic law, third parties will have to try to obtain those in each individual participating Member State that provides for them. Once a third party has obtained them, it is "safe" from the patentee's right to enforce his or her rights before the UPC against him or her in the Member States in question.[297] The UPC does not have the competence to rule on compulsory licensing if a case was brought before it by a patent proprietor.[298] Any litigation on compulsory licensing will thus have to be decided by national courts. Moreover, if the patent applicant wants a unitary patent, he or she will have to designate all participating Member States in his or her application, but he or she may designate additional states. The European patent that the patentee would obtain in the latter category of states constitutes a bundle of national patents that is only enforceable as a national patent under domestic law per state in which it is valid. This would also be the case for the participating Member States that have not yet ratified the UPC Agreement while the UPC Agreements has already entered into force. At that time, even though the patent is obtained in a participating Member State, the patent can merely be enforced as a national patent. Furthermore, the patentee may use the op-out possibility. As pointed out earlier, the UPC's decision only covers the unitary-patent area. This might create discrepancies in the treatment and resolution of cases, in addition to creating legal uncertainty.[299] The obligations of states under EU law may counter this process, but the domestic courts are not bound by the UPC Agreement. Moreover, due to the amendments made to Brussels Ibis, the UPC and domestic courts of non-participating Member States will generally have to recognise each other's decisions.[300]

---

[294] Article 24(1)(d) of the UPC Agreement. All EU Member States are members of the Council of Europe,[294] but the EU itself has not yet acceded to the ECHR. In 2010, the amendment that needed to be made to Article 59(2) of the ECHR itself to allow for the EU's accession entered into force. The amendment was introduced via Article 17 of Protocol No. 14 to the ECHR. Since the Lisbon Treaty, Article 6(2) of the TFEU prescribes the accession of the EU to the ECHR, but so far, the efforts for accession have not been successful. Christophe Geiger and Elena Izyumenko, 'Intellectual Property before the European Court of Human Rights' [2018] Center for International Intellectual Property Studies (CEIPI) Research Paper No. 2018-01, 5-6.

[295] In *Bosphorus*, a working relationship has been developed with EU Member States. The ECtHR found that the membership to an international organisation does not preclude individual responsibility of its members for their violations of rights protected by the ECHR (paras. 2-4). However, if this organisation provides for equivalent protection to the ECHR of such rights and the state merely sought to fulfil its legal obligations as a member to that organisation, absent manifestly deficient protection of such rights, compatibility with the ECHR would be presumed (paras. 5-6). App No 45036/98 *Bosphorus v Ireland*, 30 June 2005.

[296] Article 34 of the ECHR.

[297] Avgi Kaisi, 'Finally a single European right for the EU? An analysis of the substantive provisions of the European patent with unitary effect' (2014) European Intellectual Property Review 36:3 170, 176-177.

[298] Article 31(1) of the UPC Agreement does not contain a subparagraph on compulsory licensing. It does, however, include prior-use rights. While prior-use rights are subject to the domestic law of participating Member States, it thus falls within the exclusive competence of the UPC to decide on such rights related to a unitary patent or a European patent (without opt-out).

[299] Michael Christian Alexander, *Cross-border Patent Infringement Litigation within the European Union* (Ulrik Huber Institute for Private International Law, 2015), 513.

[300] Based on Article 71d of Brussels Ibis, the rules on recognition and enforcement of Brussels Ibis are applicable to cases involving the decision of a common court (i.e. the UPC) or of a domestic court of a Member State not participating in the UPC Agreement. This will not be the case for decisions of the UPC in participating Member States; the relevant rules of the UPC Agreement will then apply. Article 36 of Brussels Ibis: 'A judgment given in a Member State shall be recognised in the other Member States without any special procedure being required.' Furthermore, Article 39 of Brussels Ibis provide: 'A judgment

II.3. THE LIMITS TO ENFORCEMENT

II.3.1. The objectives of the UPC in patent enforcement

To get a better understanding of how the relevant provisions of the UPC Agreement must be interpreted, this subchapter focuses on the preamble first.[301] This order will enable a better understanding and underline the current practice of patent enforcement overshooting its target.

Looking at the preamble of the UPC Agreement, the emphasis is clearly put on the importance of a more balanced enforcement. The preamble kicks off by saying that the free movement of goods and services in the internal market will benefit from cooperation between EU Member States in the area of patents in a way that does not distort competition.[302] Furthermore, the adverse impact on innovation of a fragmented patent-market and the disparities between domestic judicial systems is brought forward as an additional consideration.[303] This is believed to be especially troubling for the chances of SMEs to enforce their patents and defend against unfounded infringement-claims of others. This concern is revisited a few paragraphs further down in the preamble, where the desire of the participating Member States is expressed 'to *improve* the enforcement of patents and the defence against unfounded claims and patents which should be revoked'.[304] This is an interesting choice of words. It reveals a general belief that the current enforcement of patents in the EU is flawed at the expense of legitimate defences against infringement claims. The first part of that sentence could, of course, be explained solely by the concerns expressed about fragmentation and not say anything about the degree of enforcement, but that does not affect the signal sent by the second part of this sentence. It is also notable that the importance of strong enforcement, or the desire for strengthening enforcement, is not mentioned anywhere in the preamble. This consideration adds to the argument that the preamble conveys the desire for both a uniform approach to enforcement as well as a more balanced approach. Moreover, the creation of the UPC is also said to increase legal certainty, which is often explained in favour of the patentee as strong enforcement in patent-infringement cases. However, legal certainty is said to be the objective both in terms of infringement cases and invalidity claims.[305] Due to the fact that the unitary patent can only be revoked for the entire unitary-patent area, legal certainty is indeed also enhanced in favour of third parties. Moreover, third parties will also not be vulnerable to damage claims piling up per Member State in which the unitary patent's subject-matter was distributed.[306] However, as we have seen, the uniformity in terms of the limitations to the rights conferred by the unitary patent cuts in favour of the patentee's interests rather than those of third parties. Further below in this thesis, the analysis focuses on the extent to which this is also the case in enforcement. Finally, decisions of the UPC should result in 'a fair balance between the interests of right holders and other parties and [take] into account the need for proportionality and flexibility'.[307] This paragraph is probably the clearest indication in the preamble that the UPC Agreement is meant to promote a more balanced approach to enforcement, but it is also a very ambiguous paragraph. There is no mention of possible relevant factors to shed some light on this

---

given in a Member State which is enforceable in that Member State shall be enforceable in the other Member States without any declaration of enforceability being required.' This means that the exequatur is abolished. Absent any of the grounds for refusal to recognise or enforce under Articles 45 and 46 of Brussels Ibis, a judicial decision of a Member State shall by recognised and enforceable in another.

[301] In accordance with Article 31(1) of the Vienna Convention. As observed by Peukert, every instrument articulates its object and purpose(s). Although not of the same legal significance as the provisions of the treaty, much can be inferred from the preamble. Alexander Peukert, 'Intellectual Property as an End in Itself?' (2011) E.I.P.R. 33 67.

[302] Recital 1 of the UPC Agreement; This belief is also voiced in Recital 4 of the Unitary Patent Regulation.

[303] Recital 2 of the UPC Agreement; This belief is also voiced in Recital 4 of the Unitary Patent Regulation.

[304] Recital 5 of the UPC Agreement. Emphasis added. The same choice of words can be found in Recital 4 of the Unitary Patent Regulation.

[305] Recital 5 of the UPC Agreement.

[306] Michael Christian Alexander, *Cross-border Patent Infringement Litigation within the European Union* (Ulrik Huber Institute for Private International Law, 2015), 503.

[307] Recital 6 of the UPC Agreement.

balancing act. The preamble also does not say anything about whether this balancing act should generally tip in favour of the rightholder - as is generally the approach in Europe - or whether this "fair balance" may go beyond exceptional circumstances.[308]

Looking at the instruments related to the UPC Agreement does not give us much insight either, unfortunately.[309] The preamble of the Unitary Patent Regulation focuses mostly on administrative issues, the effects of the unitary patent and its scope, which means it does not mitigate the ambiguity of the UPC Agreement on enforcement. The Translations Arrangements Regulation, however, does contain a few relevant factors for disputes involving damage claims. The preamble of this instrument states the need for the competent court to make its assessment on a case-by-case basis.[310] Moreover, it says that the court should consider that the alleged infringer may have acted in good faith until being provided with a translation of the protected subject-matter in his own language and may not have had knowledge or reasons to suspect he or she was infringing the patent in question.[311] Furthermore, the court should also take into consideration whether the alleged infringer is a SME conducting business solely on a local market.[312] Of course, this only provides limited guidance for a specific type of claim, but it may, nevertheless, be useful. It shows that the type of party may be a relevant consideration for the court in deciding whether and/or how to enforce a patent, as well as the market a company is operating in.

Nevertheless, the UPC Agreement itself does not make explicit anywhere what degree of balance should be achieved, or how it may be achieved. Based on the preamble of the UPC Agreement, the UPC may deploy an approach that is inducive to promoting innovation by taking into account the interests of third parties and society at large.[313] The objectives pursued by this instrument according to the preamble show promise for an enforcement climate that devotes itself to the main reason for having a patent system.[314] Unfortunately, in the absence of more specific language, it also leaves the door open for enforcement of patents that is close to automatic. Unfortunately, the language of the relevant provisions in the UPC Agreement also do not contain stronger language, as will be explained below.

II.3.2. The UPC and rule one

With the objectives in mind as laid down in the preambles of all three instruments of the UPP, it is time to analyse the wording of the provisions relevant to the choice between the first and second rule and assess to what extent the UPC is able to opt for the latter.[315] In this subchapter, the focus will be entirely on the interpretation of the UPC Agreement's provision on permanent injunctions. The analysis will be conducted based on the wording of the provision itself, the Rules of Procedure and the inspirations for this provision, Article 11 of the Enforcement Directive and Article 44(1) of the TRIPS Agreement.

In Europe, finding an infringement generally results in the court granting injunctive relief against the infringer.[316] Put differently, European courts prefer protecting the rights conferred by a

[308] Earlier versions of the UPC Agreement's preamble also do not give insight into what kind of circumstances the participating Member States were thinking of or whether they want to move away from a more automatic approach to patent enforcement. Even the Draft Agreement on the European and Community Patents Court of 8 January 2009 (5072/09) already contained the considerations discussed in this subchapter, albeit with non-substantial differences in the wording.
[309] In accordance with Article 31(2)(a) if the Vienna Convention.
[310] Recital 9 of the Translations Arrangements Regulation.
[311] Recital 9 of the Translations Arrangements Regulation.
[312] Recital 9 of the Translations Arrangements Regulation.
[313] Clement Salung Petersen, Thomas Riis and Jens Schovsbo, 'The Unified Patent Court (UPC) in Action' in Rosa Maria Ballardini, Marcus Norrgård and Niklas Bruun (eds), *Transitions in European Patent Law: Influences of the Unitary Patent Package* (Wolters Kluwer, 2015), 44.
[314] Clement Salung Petersen, Thomas Riis and Jens Schovsbo, 'The Unified Patent Court (UPC) in Action' in Rosa Maria Ballardini, Marcus Norrgård and Niklas Bruun (eds), *Transitions in European Patent Law: Influences of the Unitary Patent Package* (Wolters Kluwer, 2015), 44.
[315] In accordance with Article 31(1) of the Vienna Convention.
[316] Daniel Krauspenhaar, *Liability Rules in Patent Law: A Legal and Economic Analysis* (1st edn, Springer-Verlag Berlin Heidelberg, 2015), 32; Ansgar Ohly, 'Three Principles of European IP Enforcement Law: Effectiveness, Proportionality,

patent with a property rule. The legal basis for the UPC to grant permanent injunctions to enforce a unitary patent is Article 63 of the UPC Agreement. The first sentence of this provision reads: 'Where a decision is taken finding an infringement of a patent, the Court *may* grant an injunction against the infringer aimed at prohibiting the continuation of the infringement.'[317] Its wording has not seen any substantial amendments since its introduction into the Agreement on the European Community Patent.[318] Looking solely at the wording, the UPC appears to have been endowed with discretion in deciding not to grant an injunction against the infringer, even if it establishes an infringement. However, neither the provision itself nor previous drafts reveal anything about the degree of this discretion. Obviously, such discretion is never unlimited, but it cannot be ignored that the words "*may* order" were chosen and not "*shall*", nor was there the addition of "absent exceptional circumstances" or something similar. Moreover, no analytical structure is provided in the UPC Agreement for the interpretation and application of this provision, nor any factors to consider or indications as to the preference of the desired result other than the previously discussed ambiguous "balanced approach" in the preamble.

Rule 118 of the Rules of Procedure tries to shed some light on this provision. First, the explanation and amendment to the first paragraph of this rule solely refer to a general discretion. In fact, this paragraph was amended in the 17th edition specifically to safeguard the discretion granted under *inter alia* Article 63 of the UPC Agreement.[319] Moreover, the 2013-edition included a second paragraph that was modelled after Article 12 of the Enforcement Directive on alternative measures.[320] This paragraph was amended in the 16th edition[321] and ultimately removed in the 17th edition.[322] As can be inferred from the public consultation,[323] there was extensive debate on the practical use of such a limited exception and its negative implications for the general discretion granted to the UPC under Article 63 of the UPC Agreement.[324] However, the explanation then concludes that the UPC may only refuse injunctive relief upon finding an infringement in very exceptional circumstances. This seems counterintuitive when looking at the justification for deleting paragraph 2. Evidently, the development of Rule 118(1) and (2) creates a paradox. On the one hand, Article 63 of the UPC Agreement is interpreted as endowing the UPC with a general discretion that would allow for a plain refusal or ordering alternative measures instead of injunctive relief. On the other hand, it is assumed that the UPC's discretion may only be exercised in very exceptional circumstances.

Dissuasiveness' in Josef Drexl and Hanns Ullrich (eds), *Technology and Competition: Contributions in Honour of Hanns Ullrich* (Larcier 2009) 259; Alexander Peukert, 'Intellectual Property as an End in Itself?' (2011) E.I.P.R. 33 67, 68.

[317] Emphasis added. The rest of this provision is not relevant to the analysis conducted in this thesis, but for completeness, Article 63 goes on to say in the first paragraph that '[the] Court may also grant such injunction against an intermediary whose services are being used by a third party to infringe a patent.' The second paragraph reads: 'Where appropriate, non-compliance with the injunction referred to in paragraph 1 shall be subject to a recurring penalty payment payable to the Court.'

[318] The Draft Agreement on the European and Community Patents Court of 8 January 2009 (5072/09) already contained this provision, albeit with non-substantial differences in the wording and different numbering. Until 2013, Article 63 of the UPC Agreement was Article 37a in the draft proposals.

[319] Table with explanatory notes to the changes made by the Legal Group of the Preparatory Committee in the 17th draft of the Rules of Procedure, 17th draft (31 October 2014), 10. Rule 118(1) of the 17th edition of the Rules of Procedure reads: 'In addition to the orders and measures *and without prejudice to the discretion of the Court* referred to in Articles 63, 64, 67 and 80 of the Agreement the Court may, if requested, order the payment of damages or compensation according to Articles 68 and 32(1)(f) of the Agreement. The amount of the damages or the compensation may be stated in the order or determined in separate proceedings [Rules 125-143].' Emphasis added.

[320] Preliminary set of provisions for the Rules of Procedure of the Unified Patent Court, 15th draft (31 May 2013). Article 12 of the Enforcement Directive is an optional provision covering damages as an alternative measure to permanent injunctions.

[321] For clarification of the discretion of the UPC, two amendments were made to Rule 118(2) of the Rules of Procedure. First, it now started with the words: 'Without prejudice to the general discretion provided for in Articles 63 and 64 of the [UPC] Agreement, …'. Second, the wording now provided for the option to grant damages *or* compensation instead of injunctive relief, whereas the previous version allowed for damages *and/or* compensation to be granted. Preliminary set of provisions for the Rules of Procedure of the Unified Patent Court, 16th edition (31 January 2014); Digest Responses to the Public Consultation on the Rules of Procedure of the UPC

[322] Preliminary set of provisions for the Rules of Procedure of the Unified Patent Court, 17th edition (31 October 2014).

[323] Responses to the Public Consultation on the Rules of Procedure of the UPC, 15th draft (14 December 2013), 93-98.

[324] Table with explanatory notes to the changes made by the Legal Group of the Preparatory Committee in the 17th draft of the Rules of Procedure, 17th draft (31 October 2014), 11.

This narrow interpretation of Article 63 is based on the provision of the same instrument on direct infringement,[325] which is phrased as acts that may be *prevented* by the proprietor. Indeed, the remedy that is best suited for preventing certain conduct is injunctive relief. However, liability rules are also capable of protecting the economic rights concerned. Also, more importantly, the rights conferred to the proprietor are not unlimited. Furthermore, reoccurring examples in the comments focused on cases involving patent trolls and a third party already having made substantial investments. As previously discussed, such circumstances are increasingly present in patent infringement cases. It is also difficult to determine whether a rightholder is a patent troll. There is no working definition for a patent troll.[326] Often courts start with determining whether the proprietor is a non-practicing entity, but not every non-practicing entity is "trolling".[327] This makes it unlikely that these factors would be caught by "very exceptional circumstances" in the majority of such cases. Furthermore, the last sentence of the explanation for the deletion of the second paragraph concludes with the remark that the UPC may consider granting alternative measures if exercising its discretion.

Unfortunately, the degree of discretion is also not clarified by the wording of its inspiration, Article 11 of the Enforcement Directive.[328] First, Article 63 of the UPC Agreement contains substantially the same wording as this provision.[329] In fact, many of the provisions of the Enforcement Directive were essentially copied into this instrument.[330] Second, there is no case law yet from the CJEU on the correct interpretation and application of the first sentence of Article 11 of the Enforcement Directive.

While there are panel decisions on the correct interpretation of the provision on which Article 11 of the Enforcement Directive is based, the same is, unfortunately, true for Article 44(1) of the TRIPS Agreement.[331] Based on the WTO panel's decision in *China Enforcement*, it appears to only require that courts are provided with the authority to grant injunctive relief in infringement cases involving intellectual property rights.[332] The decision was based on the similar wording of the first part of another provision.[333] However, the wording of the second part of this provision is much stronger than that of Article 44(1) of the same instrument.[334] The latter provision actually emphasises that this authority does

---

[325] Article 25 of the UPC Agreement; Table with explanatory notes to the changes made by the Legal Group of the Preparatory Committee in the 17th draft of the Rules of Procedure, 17th draft (31 October 2014), 11.

[326] Ansgar Ohly, 'Three Principles of European IP Enforcement Law: Effectiveness, Proportionality, Dissuasiveness' in Josef Drexl and Hanns Ullrich (eds), *Technology and Competition: Contributions in Honour of Hanns Ullrich* (Larcier 2009) 260.

[327] Reto M. Hilty, 'The Role of Enforcement in Delineating the Scope of IP Rights' [2015] Max Planck Institute for Innovation and Competition Research Paper No. 15-03, 11-12; Ansgar Ohly, 'Three Principles of European IP Enforcement Law: Effectiveness, Proportionality, Dissuasiveness' in Josef Drexl and Hanns Ullrich (eds), *Technology and Competition: Contributions in Honour of Hanns Ullrich* (Larcier 2009) 260.

[328] While not covered by Articles 31 and 32 of the Vienna Convention, the interpretation and application of Article 11 of the Enforcement Directive is important for the interpretation of provisions of the UPC Agreement due to Article 24(1)(a) of the UPC Agreement. In the development of the Enforcement Directive, it was emphasised that the instrument would not be limited to matters of piracy or counterfeiting by the Rapporteur. It was argued that courts should take intent into account, and thus apply remedies accordingly in a graduated and proportionate manner. Report on the proposal for a directive on measures and procedures to ensure the enforcement of intellectual property rights (COM(2003) 46 – C5-0055/2003 – 2003/0024(COD)), 41. However, such considerations cannot be observed in the final version of Article 11 of the Enforcement itself, nor has it affected the general preference for granting injunctive relief upon establishing an infringement.

[329] It is also inferred and generally accepted that Article 11 of the Enforcement Directive obliges EU Member States to endow their domestic courts with the power to grant injunctive relief, but not to make injunctive relief available in every case in which an infringement of intellectual property rights is established. See, for example, Ansgar Ohly, 'Three Principles of European IP Enforcement Law: Effectiveness, Proportionality, Dissuasiveness' in Josef Drexl and Hanns Ullrich (eds), *Technology and Competition: Contributions in Honour of Hanns Ullrich* (Larcier 2009) 262-263; Daniel Krauspenhaar, *Liability Rules in Patent Law: A Legal and Economic Analysis* (1st edn, Springer-Verlag Berlin Heidelberg, 2015), 63-64.

[330] Martin Husovec, *Injunctions against Intermediaries in the European Union: Accountable but not Liable?* (Cambridge University Press, 2017), 49.

[331] Proposal for a Directive on measures and procedures to ensure the enforcement of intellectual property rights COM(2003) 46 final, 23.

[332] WTO Panel Report WT/DS362/R of 26 January 2009, *China*, 7.236.

[333] The relevant part of Article 59 of the TRIPS Agreement reads: '…competent authorities *shall have the authority* to order the destruction or disposal of infringing goods in accordance with the principles set out in Article 46.' Emphasis added.

[334] Article 59 of the TRIPS Agreement goes on to say: 'In regard to counterfeit trademark goods, the authorities *shall not allow* the re-exportation of the infringing goods in an unaltered state or subject them to a different customs procedure, other than in

not have extend to cases in which the infringer lacked prior knowledge of the illegality of his or her actions or had no reasonable grounds to know. In an older decision, the WTO panel found that Article 44(1) of the TRIPS Agreement went beyond that. There, it was concluded that reference was not merely made to the authority, but to the fact that the courts of its members should have discretion in general in deciding whether or not to grant injunctive relief.[335] Evidently, these decisions together tell us very little about (the degree of) judicial discretion. Moreover, it is important to take into account that the TRIPS Agreement has a different effect and margin of appreciation than an EU instrument due to the fact that it constitutes an international treaty to which at least 164 states are members. However, they do imply that, at the very least, courts are not required to automatically grant injunctions upon finding an infringement.[336]

Based on Article 63 of the UPC Agreement, it is certain the UPC is endowed with judicial discretion in deciding whether or not to grant injunctive relief. However, the degree of judicial discretion remains ambiguous based on this provision and its equivalents in related legal instruments relevant to its interpretation. Article 63 of the UPC Agreement and both of its predecessors contain no specifics on the form an injunction should take, nor on the circumstances that would warrant a court's refusal to grant injunctive relief despite finding an infringement. Moreover, the little guidance provided by the preamble and Rule 118(1) and (2) of the Rules of Procedure only adds to the confusion on the degree of judicial discretion.

II.3.3. The UPC and rule two

Other provisions of the UPC Agreement tell us more about the assessment the UPC is to make. It can be inferred from the factors mentioned in these provisions and of the other relevant legal instruments that the narrow interpretation of the discretion the UPC is bestowed with based on Article 63 of the UPC Agreement cannot hold up. This analysis will focus on provisions on alternative measures and general obligations of the UPC Agreement, the Enforcement Directive and the TRIPS Agreement.

There is no provision in the UPC Agreement specifically on a rule-two remedy. It does, however, contain a general provision on damages, which is referenced in Rule 118(1) of the Rules of Procedure. This rule states that the payment of damages or compensation could be ordered in addition to injunctive relief based on Article 68 of the UPC Agreement, but that this does not prejudice the discretion the UPC has based on Article 63. This appears to leave the door open for the UPC to grant damages or compensation based on this provision as an alternative measure. Looking at the wording of the provision itself, there is indeed nothing that would stand in the way of being applied as such, other than the fact that the rightholder must have requested damages in order for the UPC to be able to grant it. The first paragraph reads: 'The Court *shall*, at the request of the injured party, order the infringer who knowingly, or with reasonable grounds to know, engaged in a patent infringing activity, to pay the injured party damages appropriate to the harm *actually suffered* by that party as a result of the infringement.'[337] Article 68 of the UPC Agreement is thus worded much stronger than its provision on permanent injunctive relief; the use of the word "shall" leaves no room for any speculation on the discretion of the UPC in deciding on the grant or refusal of damages. Furthermore, while it speaks of the 'harm actually suffered', this seems to be meant to emphasise the compensatory nature of the pecuniary sum that may be granted rather than referring to only past harm.[338] First, no reference is made

---

exceptional circumstances.' Article 44(1) reads in its entirety: 'The judicial authorities *shall have the authority* to order a party to desist from an infringement, inter alia to prevent the entry into the channels of commerce in their jurisdiction of imported goods that involve the infringement of an intellectual property right, immediately after customs clearance of such goods. Members are *not obliged to accord such authority* in respect of protected subject matter acquired or ordered by a person prior to knowing or having reasonable grounds to know that dealing in such subject matter would entail the infringement of an intellectual property right. Emphases added.

[335] WTO Panel Report WT/DS79/R of 24 August 1998, *India*, para. 7.66.

[336] Daniel Krauspenhaar, *Liability Rules in Patent Law: A Legal and Economic Analysis* (1st edn, Springer-Verlag Berlin Heidelberg, 2015), 63.

[337] Article 68(1) of the UPC Agreement. Emphasis added.

[338] Article 68(2) of the UPC Agreement.

to past or future harm, merely that it must result from the infringement. Second, the compensatory nature of the sum that the infringer may be ordered to pay is stressed several times in the other paragraphs. For instance, the amount of damages *or* compensation is limited to the sum necessary to put the proprietor *in the position* he or she would have been *absent the infringement*. There is even the explicit addition: 'damages shall not be punitive'.[339] Interpreting these words as to cover only past harm would not take into account the negative effects that may result from infringing activities even after they have ended. If this is the correct reading, this provision would thus allow for compensation to be granted covering the damage suffered by the proprietor before the proceedings, as well as after the infringement is established by the court.

Evidently, there is nothing in this provision that would prevent it from being applied as an alternative measure. However, this provision is clearly different in nature than Article 12 of the Enforcement Directive. In fact, this provision corresponds to Article 13 of the Enforcement Directive. Article 12 of the Enforcement Directive requires *inter alia* that the infringer acted both 'unintentionally and without negligence', which makes this provision virtually impossible to satisfy and thus to apply. Consequently, it was an unsuccessful attempt to insert the liability approach into the Enforcement Directive.[340] Moreover, the TRIPS Agreement also does not require such elements to be satisfied in order for damages to be granted as an alternative measure. Articles 44(2) and 31(h) of this instrument merely demand the adequacy of the remuneration. The same is true for the EU Charter and the ECHR.[341] It was also an unnecessary attempt to implement a liability rule, since Article 11 of the Enforcement Directive already allows for judicial discretion to be exercised within the limits of Article 3 of the same instrument.[342] Like Article 3 of the Enforcement Directive, Articles 1(1) and 41 of the TRIPS Agreement also function as a ceiling for the enforcement of patents by its Member States. Just as with the Enforcement Directive, the Member States of the TRIPS Agreement may provide for more protection as this instrument is one introducing minimum standards. However, the protection must stay within the limits afforded by these instruments.[343] These instruments aim to find an appropriate balance between underenforcement and overenforcement of intellectual property rights.

Furthermore, there is Article 42 of the UPC Agreement to consider. This provision demands that the UPC will deal with cases before it in a manner proportional to its significance and complexity, and that remedies laid down in the UPC Agreement are employed in a manner that is fair and equitable, without distorting competition.[344] This provision also seems challenging to reconcile with the narrow interpretation of Article 63 of the UPC Agreement given by the Legal Group of the Preparatory Committee. The UPC would have to strike an appropriate balance based on all these elements, but may only exercise its general discretion in "very exceptional circumstances"?

The latter would be even more problematic when looking at the inspiration of Article 42 of the UPC Agreement, namely Article 3 of the Enforcement Directive. This provision imposes limits on enforcement, both as a minimum and a maximum.[345] While many of the elements of the latter provision are also inserted in the former provision, there are some elements missing and some are phrased differently. The missing elements are *inter alia* that remedies 'shall not be unnecessarily complicated

[339] Article 68(1), (2) and (3) of the UPC Agreement.
[340] Reto M. Hilty, 'The Role of Enforcement in Delineating the Scope of IP Rights' [2015] Max Planck Institute for Innovation and Competition Research Paper No. 15-03, 15-16.
[341] Even the relevant provisions of the EU Charter and ECHR do not require patents to be upheld as exclusive rights. The Member States should, however, make sure that the proprietor will receive an adequate compensation. Daniel Krauspenhaar, *Liability Rules in Patent Law: A Legal and Economic Analysis* (1st edn, Springer-Verlag Berlin Heidelberg, 2015), 70.
[342] Ansgar Ohly, 'Three Principles of European IP Enforcement Law: Effectiveness, Proportionality, Dissuasiveness' in Josef Drexl and Hanns Ullrich (eds), *Technology and Competition: Contributions in Honour of Hanns Ullrich* (Larcier 2009) 264-265.
[343] Articles 1(1), 7, 8 and 41 of the TRIPS Agreement; Articles 2(1) and 3 of the Enforcement Directive.
[344] Article 42(1) and (2) of the UPC Agreement.
[345] Ansgar Ohly, 'Three Principles of European IP Enforcement Law: Effectiveness, Proportionality, Dissuasiveness' in Josef Drexl and Hanns Ullrich (eds), *Technology and Competition: Contributions in Honour of Hanns Ullrich* (Larcier 2009), 257; Daniel Krauspenhaar, *Liability Rules in Patent Law: A Legal and Economic Analysis* (1st edn, Springer-Verlag Berlin Heidelberg, 2015), 64; Martin Husovec, *Injunctions against Intermediaries in the European Union: Accountable but not Liable?* (Cambridge University Press, 2017), 49.

or costly',[346] 'entail unreasonable time-limits of unwarranted delays',[347] 'shall also be effective, proportionate and dissuasive'[348] and applied in a way as 'to provide for safeguards against their abuse'.[349] Even though proportionality is mentioned in Article 42(1) of the UPC Agreement, the chosen wording implies a different meaning, irrespective of whether this was aimed for. It frames proportionality merely as an obligation on the UPC to handle litigation according to its significance and complexity,[350] whereas Article 3(2) of the Enforcement Directive demands that remedies itself shall also be proportional. The latter provision also requires that remedies will not '[create] barriers to legitimate trade', whereas Article 42(2) of the UPC Agreement simply demands that remedies 'do not distort competition'. Since both granting and refusing an injunction would distort competition to some extent, it is more likely these words should be understood in terms of competition rules Articles 101 and 102 of the TFEU, but this is not apparent. What is clear, however, is that the different wording in Article 42 of the UPC Agreement affects the clarity and strength of the general obligations imposed on the UPC negatively compared to Article 3 of the Enforcement Directive. Due to the primacy of EU law, it is, therefore, probable that the more encompassing Article 3 will play a more prominent role in the balancing act of the UPC than the limited Article 42. As Article 3 of the Enforcement Directive dictates the limits to enforcement of *inter alia* patents, it demands a balancing act, taking into account all the elements specifically mentioned in this provision.[351] In other words, based on Article 3 of the Enforcement Directive, the UPC is obligated to adopt a flexible approach to remedies. Consequently, it would be incompatible with this provision to interpret and apply Article 63 of the UPC Agreement as only allowing the UPC to exercise its discretion in "very exceptional circumstances". This does not mean that the preference for protecting patents with a property rule itself is incompatible with Article 63 of the UPC Agreement in light of Article 3 of the Enforcement Directive. It means that, if the UPC considers that a case before it requires it, the UPC should be able to make its assessment on a case-by-case basis and exercise its discretion in deciding upon the remedies within the limits of the protection afforded.

Based on the foregoing, the complicated legal framework consisting of the UPC Agreement itself, the Enforcement Directive and the TRIPS Agreement allows the UPC to exercise judicial discretion to a greater degree than under 'very exceptional circumstances'. Whether it will, is another question entirely. It seems it is up to the UPC itself to put the UPC Agreement to the test.

PART III. AN ANALYTICAL SUMMARY

III.1. THE ENTITLEMENT, RULE TWO AND OTHER PECULIARITIES

III.1.1. The entitlement

To adequately process what the results of the analyses conducted in this thesis mean, a short recap is in order to grasp the entitlement as conferred by the unitary patent under the UPC Agreement and, in the next subchapter, the limitations to employing a rule-two remedy under the UPC Agreement.

[346] Based on Article 41(2) of the TRIPS Agreement.
[347] Based on Article 41(2) of the TRIPS Agreement.
[348] Article 41(1) of the TRIPS Agreement also contains the principles of effectiveness and dissuasiveness (in terms of deterrence), but not the principle of proportionality. That was introduced as an EU legal principle.
[349] Article 3(1) and (2) of the Enforcement Directive.
[350] This appears more in line with Article 42 of the TRIPS Agreement on fair and equitable procedures than with Article 3(2) of the Enforcement Directive as a general proportionality requirement applicable to procedures, measures and remedies.
[351] Ansgar Ohly, 'Three Principles of European IP Enforcement Law: Effectiveness, Proportionality, Dissuasiveness' in Josef Drexl and Hanns Ullrich (eds), Technology and Competition: Contributions in Honour of Hanns Ullrich (Larcier 2009), 257 and 263-264; Daniel Krauspenhaar, Liability Rules in Patent Law: A Legal and Economic Analysis (1st edn, Springer-Verlag Berlin Heidelberg, 2015), 64; Martin Husovec, Injunctions against Intermediaries in the European Union: Accountable but not Liable? (Cambridge University Press, 2017), 49.

As discussed earlier, Calabresi and Melamed define an entitlement as a decision of the legislator or court to let one party's interest prevail of another's.[352] The legislator may insert such interests into the law, and the court will, when such interests collide, decide which of the parties to entitle. The allocation of patents is based on mix of economic efficiency, distributional justice preferences and/or other justice reasons. The obtaining of a unitary patent depends on an application meeting certain conditions of the EPC[353] and a request for entry into the 'Register' for unitary patent protection submitted with the EPC within a month after the grant's publication in the European Patent Bulletin.[354]

The unitary patent is granted for a maximum term of twenty years from the day of application.[355] After the entry into force of the UPC Agreement, the unitary patent will only be valid in the participating Member States that have ratified the UPC Agreement. [356] Apart from licenses, the unitary patent is made indivisible.[357] Article 69 of the EPC and its Protocol tell us that the scope of the protected subject-matter is determined by the claims. The claims are to be interpreted based on their wording and the descriptions and drawings accompanying them.[358] Clearly, this leaves a margin of discretion to courts in terms of how strongly courts place the emphasis on the claims or look beyond them.[359] It cannot be inferred from the UPP which approach the UPC will take.

In the UPC Agreement, the rights conferred by the unitary patent are laid down as certain acts that may be prevented by the proprietor with the protected subject-matter of his or her unitary patent. Such conduct encompasses all regular uses under commercial exploitation, from using to selling the patented process or the patented product (directly resulting from a patented process), or importing or storing the patented product for such purposes.[360] Moreover, he or she may also prevent the delivering or offering the means to an unauthorised third-party in cases in which the supplier knows or should have known the purpose of those means,[361] and the means in question are a key element of the patented subject-matter and not of a 'staple commercial' nature.[362] The proprietor of a unitary patent is thus granted a very broadly framed set of exclusive rights. However, the proprietor may only exercise these rights if he or she has not placed the products on the internal market him or herself,[363] nor authorised the conduct with the subject-matter covered by his or her unitary patent.[364] Finally, it must also not fall within any of the limitations as provided for in the UPC Agreement or the applicable national law,[365] or the permitted exceptions under national law (prior-user rights[366] and compulsory licenses[367]).

---

[352] Guido Calabresi and A. Douglas Melamed, 'Property Rules, Liability Rules, and Inalienability: One View of the Cathedral' (1972) Harvard Law Review 85:6 1089, 1090 and 1093.
[353] Articles 52-54, 56, 57 and 83 of the EPC.
[354] Recital 18 and Articles 3 and 4 of the Unitary Patent Regulation.
[355] Article 63(1) EPC, although prolongation is possible *inter alia* via supplementary protection certificates. Annette Kur and Thomas Dreier, *European Intellectual Property Law* (Edward Elgar Publishing 2013), 122-123. The term of protection may also be shorter, for instance, if the proprietor fails to pay his or her renewal fees.
[356] Article 2(2), first and second paragraph, of the Unitary Regulation.
[357] Articles 3(3) and 2(2), third paragraph, of the Unitary Patent Regulation.
[358] Article 1 of the Protocol.
[359] Avgi Kaisi, 'Finally a single European right for the EU? An analysis of the substantive provisions of the European patent with unitary effect' (2014) European Intellectual Property Review 36:3 170, 174; Annette Kur and Thomas Dreier, *European Intellectual Property Law* (Edward Elgar Publishing 2013), 115-116; Clement Salung Petersen, Thomas Riis and Jens Schovsbo, 'The Unified Patent Court (UPC) in Action' in Rosa Maria Ballardini, Marcus Norrgård and Niklas Bruun (eds), *Transitions in European Patent Law: Influences of the Unitary Patent Package* (Wolters Kluwer, 2015), 52.
[360] Article 25(a)-(c) of the UPC Agreement.
[361] Article 26(1) of the UPC Agreement.
[362] Article 26(1) and (2) of the UPC Agreement.
[363] Article 6 of the Unitary Patent Regulation limits exhaustion to acts performed in the unitary-patent area, thereby excluding the territories of participating Member States that have not yet ratified the UPC Agreement. Whether this will have significance in practice is unlikely due to the legal doctrine of exhaustion as developed by the CJEU. As explained before, 'the possibility of opposing importation of goods which were distributed *by the proprietor or with his consent* on other territories within the common market does, in principle, *not* form part of that specific subject matter.' Emphasis added. Case 78/70 *Deutsche Grammophon v Metro SB* [1971] ECR 487, paras. 7 and 12.
[364] Articles 26 and 26(1) of the UPC Agreement.
[365] As determined by Articles 5 and 7 of the UPC Agreement.
[366] Article 28 of the UPC Agreement.
[367] Recital 10 of the Unitary Patent Regulation.

III.1.2. A rule-two remedy

If a patent proprietor believes his or her patent is infringed, the proprietor could bring a case before the competent court against the alleged infringer. If the court finds that the alleged infringer has indeed violated the rights conferred by the patent, the entitlement will be allocated to the proprietor. However, this leaves the matter of enforcement. There are various remedies at the court's disposal to enforce the patent against the infringer. However, the court's exercise of discretion in deciding on the remedies is affected by several factors. First, courts can only interpret and apply the law in line with the wording of the provisions at hand, while adhering to established principles and case law. They cannot interpret a provision broader than, or contrary to, its wording. Second, there is public policy to consider.

Based on the wording of the UPC Agreement's provision on permanent injunctions, the UPC has a general discretion to deny injunctive relief even if it finds an infringement.[368] Unfortunately, its degree is not specified in this provision, nor has the UPC itself had the opportunity to interpret and apply it. To prevent proscribed conduct, injunctive relief (rule one) is the most effective remedy,[369] but the circumstances of the case may warrant protecting such rights via a liability rule (rule two). The UPC Agreement's wording allows the UPC to order the infringer to pay damages or compensation instead.[370] The provision on damages does not prevent it from being applied if the UPC would choose to exercise its discretion and deny injunctive relief.[371]

Moreover, the provision of the Enforcement Directive on the general obligations of EU Member States and their courts[372] - and its narrower equivalent in the UPC Agreement itself[373] - impose limits on the UPC. Both contain a framework of specific elements and EU principles for the procedures, measures and remedies that should be heeded in patent enforcement. The elements of the former provision essentially come down to functions of effectiveness, dissuasiveness and proportionality. For the exercise of judicial discretion, particularly the latter principle is of note. As Ohly points out, 'proportionality is a function of fairness and equity; protection that would create barriers to legitimate trade and which would deny safeguards against abuse would have to be deemed disproportionate.'[374] These obligations together constitute the lower and upper limit to the level of enforcement, and thereby offer a basis for flexible remedies within these limits.[375]

The preamble of the UPC Agreement conveys the objectives this instrument aims to achieve in enforcement. It is evident that the preamble advocates a uniform and more balanced approach to enforcement by *inter alia* taking into account the interests of the alleged infringer and society at large, as well as the proper functioning of the internal market. In the context of the latter, the safeguarding and promotion of innovation and competition is also emphasised. Moreover, the desire to "improve" the enforcement of patents is articulated instead of "strengthening" it. Even though it does not mention specific factors and limitations in respect of the balance it requires the UPC to strike, the objectives in

---

[368] Article 63 of the UPC Agreement.

[369] Dan L. Burk, 'Critical Analysis: Property Rules, Liability Rules, and Molecular Futures - Bargaining in the Shadow of the Cathedral' in Geertrui Van Overwalle (ed), *Gene Patents and Clearing Models: From Concepts to Cases* (Cambridge University Press, 2009), 298; Daniel Krauspenhaar, *Liability Rules in Patent Law: A Legal and Economic Analysis* (1st edn, Springer-Verlag Berlin Heidelberg, 2015), 13-14; Guido Calabresi and A. Douglas Melamed, 'Property Rules, Liability Rules, and Inalienability: One View of the Cathedral' (1972) Harvard Law Review 85:6 1089, 1116.

[370] Guido Calabresi and A. Douglas Melamed, 'Property Rules, Liability Rules, and Inalienability: One View of the Cathedral' (1972) Harvard Law Review 85:6 1089, 1092 and 1116; Dan L. Burk, 'Critical Analysis: Property Rules, Liability Rules, and Molecular Futures - Bargaining in the Shadow of the Cathedral' in Geertrui Van Overwalle (ed), *Gene Patents and Clearing Models: From Concepts to Cases* (Cambridge University Press, 2009), 298-299.

[371] Article 68 of the UPC Agreement and Rule 118(1) of the Rules of Procedure.

[372] Article 3 of the Enforcement Directive.

[373] Article 42 of the UPC Agreement.

[374] Ansgar Ohly, 'Three Principles of European IP Enforcement Law: Effectiveness, Proportionality, Dissuasiveness' in Josef Drexl and Hanns Ullrich (eds), *Technology and Competition: Contributions in Honour of Hanns Ullrich* (Larcier 2009) 257.

[375] Martin Husovec, *Injunctions against Intermediaries in the European Union: Accountable but not Liable?* (Cambridge University Press, 2017) 113; Ansgar Ohly, 'Three Principles of European IP Enforcement Law: Effectiveness, Proportionality, Dissuasiveness' in Josef Drexl and Hanns Ullrich (eds), *Technology and Competition: Contributions in Honour of Hanns Ullrich* (Larcier 2009) 257-274, 257.

the preamble of the UPC Agreement clearly do not advocate a hard-line and/or automatic approach to patent enforcement.

III.1.3. Peculiarities

As established in the beginning, the patent system was created to correct market failures that were detrimental to innovation. The objective to promote innovative contributions is reflected in the conditions for obtaining the unitary patent as an entitlement, as these conditions require that the invention is novel, inventive and susceptible for industrial application,[376] disclosed in a sufficiently clear and complete manner,[377] and does not fall within any of the categories of excluded subject-matter.[378] Unfortunately, this objective is not as apparent in the scope of the entitlement. The broad scope of the rights conferred by Articles 25 and 26 of the UPC Agreement without a word of caution, the lack of unitary effect of prior-user rights and compulsory-licensing exceptions and the attempt to limit exhaustion to the unitary-patent area are all examples capable of hampering innovation. The UPC Agreement overall benefits the patent proprietor over the interests of third parties or society at large.

Furthermore, while the provisions certainly allow for the objectives in the preamble of the UPP legal instruments to be read into them, is it not evident from the wording of the provisions that they should be exercised in the pursuit of these objectives. The wording of the relevant provisions of the UPC Agreement would also allow for the interpretation that the judicial discretion should only be exercised upon very exceptional circumstances. While such an interpretation would not be compatible with Article 3 of the Enforcement Directive, it is a shame that the wording of Articles 42, 63 and 68 of the UPC Agreement does not underline what this instrument aims to achieve in patent enforcement.

Third, it is also important to note that, even though all these factors would allow a court enough discretion to take a more flexible approach and tailor or alternate remedies, the court is also limited by the case before it. On the one hand, if the case does not warrant a different approach, the court simply cannot go there either, even if the other factors would allow it. On the other hand, if the other factors would limit the court's discretion in deciding upon remedies but the case before it is exceptional, the court might yet consider itself justified to resolve the case in an alternative fashion. The exercise of the discretion granted to the court based on the law, case law and public policy, irrespective of the degree, thus also depends heavily on the right case reaching the right court at the right time.

CONCLUSION

As explained in the introduction, the hypothesis of this thesis is that many of the inefficiencies in European patent systems are actually partly caused or worsened by judicial overenforcement. Throughout this thesis, it was argued that the enforcement should be more balanced and that the newly created UPC is actually in a position to break with this practice. The required balance that should be pursued should be in the service of the main justification for having a patent system, namely the promotion of innovation. Moreover, the problems that have developed and increased in effect overtime due to pro-patent tendencies endanger the very survival of the patent system.

This thesis aimed to answer the question: Can the UPC break with pro-patent tendencies in patent enforcement in Europe, based on the UPC Agreement and other relevant instruments to its decisions, by utilising liability rules, and if so, to what extent? Based on the analyses conducted in this thesis, the UPC could, indeed, break with the European tendencies to overenforce patents. The provision on permanent injunctions, Article 63 of the UPC Agreement, allows the court to deny injunctive relief even if an infringement is found. The UPC, however, has no discretion in granting damages or compensation if requested by the rightholder according to Article 68 of the UPC Agreement. This may very well result in the UPC exercising its discretion based on Article 63 of the UPC Agreement while

[376] Articles 54, 56 and 57 of the EPC. These matters are also covered in Article 27(1) of the TRIPS Agreement.
[377] Article 83 of the EPC.
[378] Articles 52 and 53 of the EPC.

having to order the infringer to pay damages or compensation based on the latter provision. In other words, the UPC would then enforce the rights conferred by the patent solely via a liability rule, more specifically rule two of Calabresi and Melamed's analytical framework. The extent to which the UPC may exercise this discretion, however, is more ambiguous. Article 63 bestows the UPC with a general discretion and the preamble of the UPC Agreement only asks for a more balanced approach. Of course, judicial discretion is never unlimited. Article 3 of the Enforcement Directive confines the UPC's exercise of discretion to the area between its lower and upper limit to enforcement. This provision prevents the UPC from enforcing the unitary patent too weakly or too strongly, and thereby thus effectively excludes an interpretation of Article 63 of the UPC Agreement that is too narrow.

This result looks very promising for the UPC's ability to contribute to a healthier patent system. However, will it take this opportunity? That is another issue entirely. Sadly, there are several causes for concern. First, it is unfortunate that the equivalent of Article 3 of the Enforcement Directive in the UPC Agreement itself (Article 42) is more limited, which could compromise the potential influence Article 3 of the Enforcement should have on the UPC's decisions. Furthermore, the property logic that has long dominated in patent enforcement in Europe might make the UPC reluctant to protect the rights conferred by patents more with liability rules. While Peukert has observed that there are examples in recent years in which courts have moved away from the property logic,[379] it is uncertain whether these cases signal a general transition in patent enforcement or will remain exceptions. Due to its composition, several legal scholars have also predicted that the UPC may develop a pro-patent bias itself. Since Article 63 of the UPC Agreement does not contain any indications on the shape an injunction should take or the grounds that would merit its denial, the UPC could simply choose not to exercise its discretion, or only rarely. Moreover, there is also the issue of legal certainty. As argued in this thesis, there are several elements that increase legal certainty both for the proprietor and third parties such as the fact that the unitary patent is indivisible and will thus stand or fall for the unitary-patent area in its entirety. Another example is the fact that infringing activities having taken place in several participating Member States can be brought against the alleged infringer in a single case instead of piling up per Member State. However, focusing on flexible remedies and the exclusivity of the rights conferred by the patent, there is something to say for the argument that it not only seems counterintuitive to not enforce an exclusive right to the fullest, but also that that would affect the value of the economic right in question. If a proprietor has cause to question whether his or her rights will be enforced if he or she brings an infringement case before the court, he or she might decide it is not worth the gamble. This also sends a signal to third parties, who might increasingly consider the danger of judicial enforcement against them is worth the risk.

Indeed, such arguments are powerful. However, it must be borne in mind that patents do not confer actual property rights, but merely artificial ones to correct certain market failures affecting innovation negatively. If these tools are employed too rigorously, innovation is hampered by the very system that aims to promote it, which, in turn, would mean that the reason for having a patent system is compromised. Looking at it from that perspective, it is in the best interest of patent proprietors that their rights are not always enforced to the fullest extent. It is a complicated balancing act requiring a fairer case-by-case assessment while acknowledging the importance of legal certainty for the enforcement of rights. Nevertheless, even if the law, judicial doctrines, general principles and public policy all allow the exercise of judicial discretion, and the UPC itself is willing to use it, the exercise of that discretion still depends on a case finding its way to the UPC that would warrant its exercise.

Consequently, unsatisfactory as an answer it may be, while the UPC is capable to the extent permitted by Article 3 of the Enforcement Directive, it remains uncertain whether the UPC will actually exercise this discretion. Time will tell.

[379] Alexander Peukert, 'Intellectual Property as an End in Itself?' (2011) E.I.P.R. 33 67, 69-70.