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FRAGMENTATION AND THE EUROPEAN PATENT SYSTEM: A SUBSTANTIVE LAW PERSPECTIVE

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ABSTRACT

Over fifty years after its original inception, the idea for a European unitary patent system has not yet been realised. Each attempt to introduce such a system has been met with fierce criticism. For the most recent proposal, the so-called unitary patent package, this tradition has continued.

One of the most significant issues at the core of a majority of criticisms is that the existing European patent system is fragmented and that the proposed system will further increase this fragmentation. The almost universal assumption of commentators has been that this is a shortcoming of the system. However, to date no proper consideration of the legitimacy of this assumption has been attempted. Commentators have not asked what might the consequences be for the European patent system if fragmentation is a significant feature of the proposed system.

This thesis considers the legitimacy of the assumption regarding the dangers of fragmentation for the European patent system, including substantive patent law. The conclusion reached has been that while fragmentation is a central feature of the existing European patent system, and is moreover likely to be a central feature of the proposed European unitary patent system, this is cause for neither criticism nor concern. On the contrary, fragmentation is not only an inherent feature of any European patent system, but also a desirable one. It is an inherent feature because no system has replaced the last, and rather than unifying the area, indirect law making has ensured a level of fragmentation. It is a desirable feature because the goals of European harmonisation and integration are not pursued entirely at the expense of national diversity.

The fragmentation that exists within the current and future European patent systems should not be perceived as a negative feature of those systems, but rather embraced as an inherent and positive feature of them.

To my parents,

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INTRODUCTION

I. INTRODUCTION

In 1949, a French senator by the name of Henri Longchambon proposed an idea. Although embryonic in nature, this idea set the agenda for the following sixty (plus) years of negotiations. It is yet to be realised. Essentially, the idea was for a unitary patent system in Europe. The years of negotiations that proceeded have been circuitous, tortuous, long, and convoluted. However, although the impetus to turn this idea into a reality has dwindled from time to time, it has never been laid to rest. In 2016, the seemingly never-ending story thus continues.

In the aftermath of World War II, there existed a common goal of cooperation amongst European nations. Initially, the aim of the European integration project, propelled by countries such as France and the UK, and bodies such as the Council of Europe and the European Coal and Steel Community (ECSC), was to foster peace in Europe and to breed prosperity among nations. Patent law was seen as a tool that could foster integration. However, due to disagreements between nations, a cohesive pan-European patent system could not be achieved.

The integration of patent law in Europe was first attempted by the Council of Europe – an institution formed, according to its Statute, to 'achieve a greater unity between its members for the purpose of safeguarding and realising the ideals and principles which are their common heritage and facilitating their economic and social progress'. Following its establishment, work began almost immediately on the creation of a European patent and patent system. A number of proposals were put forward. The first, as previously mentioned, was by Senator Longchambon. Others, such as those by Eduard Reimer and Cornelis Johannes de Haan, built upon previous proposals and suggested various amendments. As a

result, a Committee of Experts on Patents was established within the Council of Europe to consider the matter. Ultimately, at this point, it was decided that before work could begin, substantive patent law would need to be unified. The result was the Convention on the Unification of Certain Points of Substantive Law on Patents for Invention 1963 (Strasbourg Patent Convention), which had the effect of harmonising certain points of substantive patent law in Member States of the Council of Europe.

Meanwhile, other European institutions were developing. The European Economic Community (EEC) had commenced the process of creating a Community patent; however, political stagnation amongst nations caused delays and the project was unsuccessful. The European Free Trade Association (EFTA) was also established and after a number of years devised a two-convention solution – one to establish a pan-European granting procedure, and another to establish a unitary patent system for the EEC.[1]

As the European political landscape altered and membership of the European (Economic) Community grew, the two-convention solution was pursued. In its first success, a system for granting European patents was established for the European (Community and non-Community) states with the introduction of the European Patent Convention (EPC). While a unitary patent convention was also concluded for the Member States of the European Community, it was not ratified by a sufficient number of Member States and therefore, it never entered into force. Forty years later, the EPC is widely regarded as a success.

More recently, in 2000, after a number of further attempts to create a unitary patent and patent system, the idea for a Community Patent Regulation was

[1] Justine Pila, 'The European patent: an old and vexing problem' (2013) 62(4) ICLQ 917, 926, citing Stephen Ladas, *Patents, Trademarks and Related Rights* (Harvard University Press 1975) 633. This proposed solution was subsequently taken over by France.

discussed by the European Council. For the following nine years, a number of European Union (EU) regulations were proposed and debated. The idea behind implementing a regulation, as opposed to a directive or otherwise, was to avoid the problems that previous proposals had encountered involving implementation. However, unanimous agreement could not be reached at the European Council and the implementation of the proposed regulations was unachievable.

This brief history leads to the current attempt at introducing a unitary patent system in Europe. Following the implementation of the Lisbon Treaty in 2009, a new legal framework was introduced for the EU, providing a new legal basis for the harmonisation of intellectual property rights. This basis is found in Article 118 of the Treaty on the Functioning of the European Union (TFEU). Previously, the legal basis used for the harmonisation of intellectual property law was predominantly Article 114 TFEU, which allows for the adoption of measures for the approximation of provisions that have as their objective the establishment and functioning of the internal market. On the other hand, Article 118 TFEU allows for the establishment of measures for the creation of European intellectual property rights to provide uniform protection of intellectual property rights throughout the Union. The implementation of such provisions must be in the context of the establishment and functioning of the internal market. However, the significance of Article 118 TFEU is that it provides a specific legal basis for the creation of uniform European intellectual property rights, rather than having to rely on the general provision contained in Article 114 TFEU.

In 2012 and 2013, the so-called unitary patent package (UPP) was introduced. It consists of two EU Regulations, one introducing a unitary patent and the other introducing a new language regime, as well as an international Agreement establishing a unified patent court. Although the Regulations of the

UPP have a legal basis in Article 118 TFEU and create European intellectual property rights, the result will not be uniform throughout the EU. Unanimous agreement could not be achieved in relation to the language regime of the unitary patent system. Therefore, the Regulations were implemented by using the enhanced cooperation procedure contained in Article 20 of the Treaty on the European Union (TEU) and Articles 326-334 TFEU. This procedure allows nine or more Member States to join together in specific policy areas to advance the objectives of the EU, when other Member States are unwilling or unable to do so at that time. Despite an objection to the use of this process, resulting in numerous cases being brought before the Court of Justice of the European Union (CJEU), it was nevertheless approved by the European Council and Parliament and all cases against it were dismissed.

Both regulations have been implemented and have entered into force; however, their application is dependent on the ratification of the Agreement. The Agreement will establish a common patent court with cross-border jurisdiction throughout all participating EU Member States. To enter into force, the Agreement must be ratified by at least thirteen Member States. This includes, according to Article 89 of the Agreement, the ratification of France, Germany and the United Kingdom (UK) as they were the three Member States in which the highest number of European patents had effect in the year preceding the year in which the Agreement was signed. To date, eleven Member States, including France have ratified the Agreement. All that is required for the UPP to enter into force is the ratification of Germany and the UK.

The implementation of the proposed European unitary patent system[2] was recently predicted for the start of 2017; however, this was prior to the decision of

[2] The proposed system shall be referred to as the 'proposed European unitary patent system'. It is noted that the proposed system has also been referred to in literature as the 'EU unitary

the UK, by referendum, to leave the EU. Considering that the international agreement requires ratification by the UK, uncertainty surrounds the unitary patent system once again. The preparation for the new system continues. However, until more is known regarding the exit negotiations between the UK and the EU, which will take at least two years from when the UK decides to invoke Article 50 TFEU, the outcome cannot be known.

A further delay of at least five years is expected and so, the story of the unitary patent system continues.

II. RESEARCH QUESTIONS

The main research question addressed by this thesis concerns the significance of the UPP for the European patent system in general, including for substantive patent law. In considering this question, further questions have emerged, for example: do we need a unitary patent system for Europe; what changes to the existing European patent system will the UPP entail; and what are the perceived strengths and weaknesses of this proposed system? In the course of addressing these further questions, it became clear that a central concern regarding the UPP among commentators to date has been that instead of unifying the European patent system, the package will serve to further fragment it. A new question thus arose, namely, why is this a concern, and should it be? A central aim of this thesis then became to consider this question.

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patent system'. Although non-EU Member States are currently excluded from participation in the system, the proposed system will not involve all EU Member States. Indeed, it is open to all EU Member States, however, following Brexit, there is now the possibility that the court system will be opened up to more than just EU Member States. For this reason, it is seen as necessary to leave the terminology open, and not restrict the system to the EU only.

III. METHODOLOGY

Considering the questions raised by this thesis, as outlined above, primarily required analysis of primary and secondary international, EU and domestic legal sources, including legislation, case law and commentaries. Owing to the currency of the issues and the fast pace at which developments in the field occur, reference was also made to blogs and conference materials. Interviews were not deemed appropriate since the UPP has not yet been implemented and therefore any comments would be speculative. However, feedback from professors, lecturers and students on presentations given over the course of this research were used in developing the research questions of this thesis. So too were the discussions entered into with numerous legal, technical and research members of the Boards of Appeal of the European Patent Office over the course of a four month internship at the Office.

IV. ORIGINAL CONTRIBUTION

The introduction of the UPP is among the most significant events in the intellectual property field of the last half-century, and has been the subject of considerable scholarly and practitioner commentary. Despite this, no one has, to my knowledge, undertaken the analysis of the proposed system carried out in this thesis. As explained above, the basic aim of the analysis is to consider the nature of the UPP and the ways in which it can be expected to change the existing European patent system. A central issue in that regard is the likely impact of the UPP on the existing fragmentation of the European patent system, and whether that impact is something to be concerned about. While it is true – as other

commentators have said – that the UPP can be expected to increase rather than decrease the existing fragmentation of the European patent system, the same commentators have suggested that this is a negative feature of the UPP.

By challenging the general view of commentators regarding the UPP, and drawing to that end on the work regarding fragmentation that has been done outside of the patent and intellectual property regimes, this thesis seeks to make an original contribution to the scholarship in this area. It does so by applying the knowledge gained from an examination of fragmentation in the international legal system to the European patent system. Scholars have recently touched upon the similarities of fragmentation in both systems making this study both timely and relevant.[3]

V. LIMITATIONS

As a result of restricted time and space, this thesis has certain limitations and cannot take all factors into consideration. Therefore, although literature exists on the international nature of international intellectual property law,[4] the analysis undertaken in this thesis has focussed on the European patent system only. Neither does it consider the impact of competition law on the European patent system in detail, nor does it analyse the law and jurisprudence relating to supplementary protection certificates.

While an in depth analysis of Article 6(2)(c) of Council Directive 98/44/EC on the legal protection of biotechnological inventions [1998] OJ L 213/13 (Biotech Directive) is undertaken, other provisions of the Biotech

[3] See for example: Graeme Dinwoodie, 'Diversifying Perspectives of the International Intellectual Property System' in Christophe Geiger (ed), *The Intellectual Property System in a Time of Change: European and International Perspectives* (Lexis Nexis 2016) 224.

[4] See, for example: Henning Grosse Ruse-Khan, *The Protection of Intellectual Property in International Law* (OUP 2016).

Directive have not been examined. The focus on Article 6(2)(c) was deemed to be the most appropriate to answer the questions posed by this thesis.

VI. CHAPTER OUTLINE

This thesis proceeds in eight Chapters. Chapter One examines the present European patent systems. There are currently three alternative patent systems available to patent applicants in Europe. The first is the national patent system, implemented by individual national patent offices. The second is the European patent system, governed by the EPC and implemented by the European Patent Office (EPO) and Administrative Council of the European Patent Organisation. This system provides a streamlined patent grant procedure in up to thirty-eight Contracting States. The third system is the international patent system, introduced by the Patent Cooperation Treaty (PCT). Opting for this process results in an international filing date. Although these alternative routes to protection exist, the end result of each procedure is a national patent, restricted territorially. This chapter outlines the purpose, legal basis, procedural, and enforcement aspects of each system, as well as their perceived advantages and disadvantages. It shows that the main problem associated with the present European patent system is that of fragmentation. The fragmentation of the national patent system exists because each country has its own independent substantive patent laws and patent systems (although mostly based on the EPC), including individual courts to hear post-grant matters such as infringement and validity.

Following on from this outline of the current patent systems in Europe, Chapter Two discusses purpose, legal basis, procedural, and enforcement aspects of the UPP. The Regulations introduce a new title of patent for Europe that is to

have unitary effect throughout the Contracting Member States of the Agreement for a Unified Patent Court (UPCA). This new system will be administered by the EPO and a new European patent court. The court will have (subject to a transitional period) exclusive competence over both European patents and new European patents with unitary effect, and the capacity to deliver cross-border judgments on infringement and validity.

Although numerous advantages have been predicted, including lower costs and less frequent divergence in proceedings across Europe, the proposed European unitary patent system has been fiercely criticised. The main aim of the proposed system is to promote integration amid the fragmentation of the current European patent system that was identified in Chapter One. That is, to address the problems that arise as a result of the existence of numerous laws and courts that deal with patent law matters. It has attracted an enormous amount of discussion and controversy in the field of European patent law, more generally in intellectual property law, and in EU law also. Critics have identified many problems with the proposed system. These problems are diverse in nature, and are legal, political, procedural and institutional. Chapter Three and Chapter Four investigate these criticisms and come to the conclusion that underpinning them is a concern that the UPP will increase rather than reduce the existing fragmentation in the European patent system.

In Chapter Five the focus turns from patent law to fragmentation. Its aim is to study fragmentation as it has been experienced outside of intellectual property, in the general international legal order, with a view to understanding its potential significance for the European patent system. It is shown that while previously seen as a problem in international law, fragmentation has more recently been accepted as an inevitable feature of international legal systems, and

even embraced as a means of protecting diversity. Applying the insights gained from this study, it is suggested that in a field such as patent law in which there exists diverse views on matters of social and constitutional importance, fragmentation might, after all, be something we should be seeking to protect.

Chapters Six to Eight seek to test this suggestion with a study of the development of the European patent system to date. Chapter Six investigates the aims and motivations of the European and EU legal systems as well as those of the European patent system. This investigation shows that fragmentation does not run contrary to European objectives of an integrated community and that it is not necessarily a negative aspect of a legal system. New methods of integration, including enhanced cooperation, allow for national diversity and show an appreciation of value pluralism. The way in which the system has developed has allowed for fragmentation in order to take these values into account where necessary.

The suggestion that fragmentation might be something we should be seeking to protect is also supported by current trends in the systems operating in the European patent field. Prior to the introduction of the EPC, the patent field in Europe was based purely on national patent law and its interpretation by national courts. Subsequently, the EPC changed the patent landscape into one with the purpose of an integrated European approach to substantive patent law. However, the interpretation of the EPC provisions predominantly remains with national courts. Although specialist tribunals were introduced at European level, there is no formal route for national courts to refer questions on interpretation to these bodies. As shown in Chapter Seven, while the result of this system is considerable legal and institutional fragmentation, the effects of that fragmentation are, in practice, kept in check by various judicial methods, which are akin to those seen

in Chapter Five to have been used in the international legal system. The result is a system in which fragmentation, as it exists therein, is perceived as an inherent and positive aspect of the European patent system, allowing different countries to remain true to their own view of the requirements of patent legislation.

Chapter Eight takes this analysis further, by showing not only that fragmentation is an inherent aspect of the European patent system, but also that in some areas at least, it is a necessary one. It does so by discussing the impact of EU law, including particularly the Biotech Directive, on the European patent system. For the first time following the introduction of this Directive, national courts could, and in some cases were required to, refer questions on the interpretation of substantive patent law to the CJEU to ensure consistency in its interpretation. Among the stated aims of the Biotech Directive is to ensure that the application of patent law by EU Member States takes sufficient account of the requirements of fundamental rights, including human dignity particularly. A discussion of case law involving the Directive shows how its interpretation has resulted in a unitary understanding of those requirements for all EU Member States, depriving them of any scope for disagreement over the nature and meaning of human dignity for patent rights. In the argument made, it is precisely in order to prevent such unified understandings of the requirements of fundamental rights that some degree of fragmentation in European patent law and decision-making is necessary.

If implemented, the UPP will add an additional legal and institutional layer to the existing European patent system, which will in turn increase the degree of legal and institutional fragmentation within that system. Critics have claimed that this is a shortcoming of the UPP. However, the analysis in Chapters Five to Eight, suggest that this is not necessarily the case: that instead of being a

cause for criticism, the fragmentation that is likely to remain as an inherent feature of the European patent system if the UPP is introduced can be regarded as a positive aspect of the system. This suggests that instead of ignoring or criticising that fragmentation, we should be discussing ways to harness it for the benefit of all of Europe and European states.

CHAPTER ONE: THE PRESENT EUROPEAN PATENT SYSTEM

I. INTRODUCTION

Considered together, the existing patent systems in Europe involve a complex series of procedures that can lead to the grant of one or more national patents in Europe, and an even more complex court system to deal with conflicts regarding those patents, once granted. Currently, there are three methods by which patent protection can be sought and granted in Europe. First, a patent can be granted at national level by applying to a national patent office operating within its national patent system.[1] Second, one can obtain a bundle of national patents in the form of a European patent from the European Patent Office (EPO), applying the European Patent Convention 1973 (EPC)[2] – the so-called European patent system. Thirdly, an applicant can be granted an international priority filing date via the international patent system under the Patent Cooperation Treaty 1970 (PCT)[3] from the World Intellectual Property Organisation (WIPO).[4] This will give all subsequent applications they might make in Europe (and beyond) priority.

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1 For example: Patents Act 1977 (UK); and Patentgesetz in der Fassung der Bekanntmachung vom 16. Dezember 1980 (BGBI. 1981 I S. 1), das durch Artikel 2 des Gesetzes vom 4. April 2016 (BGBI. I S. 558) geändert worden ist (Germany).

2 Convention on the Grant of European Patents of 5 October 1973 (European Patent Convention) (EPC), amended in 2000.

3 Patent Cooperation Treaty 1970 (PCT).

4 It could be questioned whether the application procedure implemented by the PCT can be considered a separate patent 'system'. It is indeed possible to view this as a separate system. In a very recent chapter by Sam Ricketson (Sam Ricketson, 'The Emergence and Development of the International Intellectual Property System' in Rochelle Dreyfuss and Justine Pila (eds), *The Oxford Handbook of Intellectual Property Law* (OUP forthcoming) available at: <http://www.oxfordhandbooks.com/view/10.1093/oxfordhb/9780198758457.001.0001/oxfordhb-9780198758457?rskey=lHvI0q&result=8> last accessed 31 July 2017), he delves into the meaning of the word 'system' and what makes a 'system'. He uses the Oxford English Dictionary definition of a system as 'a set of things working together as parts of a mechanism or an interconnecting network, a complex whole; a set of principles or procedures according to which something is done; an organized scheme or method: a multiparty system of government/the public school system.' He argues that these definitions suggest that a system is 'a series of links or connections that follow through in a logical and ordered progression'. Based on the Oxford English Dictionary definitions, and the meaning of these as derived by Ricketson, it is possible that the procedure involved in receiving a priority date from the WIPO via the PCT, can be considered a system. It is an interconnecting network; it is a set of principles and procedures according to which something is done. The intention is not to imply that just because it is a patent system means that the result is a patent right. However, that does not remove the possibility of it being a 'system'. Although the search and preliminary

For the prospective applicant, the existence of these different systems and procedures for obtaining a patent in Europe requires careful consideration before proceeding with an application. So too for the European patent law and policy maker, the benefits and shortcomings of each system must be at the centre of new initiatives in the European patent field. Hence the aim of this initial chapter, which is to provide an overview of the current patent systems in Europe, including their purpose, legal basis, procedural, and enforcement aspects, as well as their perceived strengths and weaknesses.

II. THE NATIONAL PATENT SYSTEMS

A patent is an exclusive right, granted by the state to an inventor for a limited term of protection, in exchange for the disclosure of the protected invention to the public. The main requirements of a patent call for the existence of an invention that is novel, involves an inventive step and has industrial applicability.[5] However, certain exceptions exist, including the prevention of a patent on an invention the commercialisation of which would be in opposition to *ordre public* and or morality.[6] The patent applicant must disclose the details of their invention to the public in order to be awarded protection. This ensures that while protected, the public are enriched from the knowledge gained from the invention and can undertake new research with this information. Furthermore, once the term of protection has elapsed, the public will be free to use the invention in any way. Once granted, a patent confers on the patentee an exclusive right to prevent a third party from making, using, offering for sale, selling, or importing the protected

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examination is not binding, the priority date is binding. Regardless, many a 'system' does not produce a binding result.

5 Section 1(1) Patents Act 1977 (UK) and Articles 54, 56 and 57 EPC.

6 Section 1(2) Patents Act 1977 (UK) and Article 53 EPC.

invention.[7] Furthermore, when filing for a national patent, the application must include a translation of the application into the official language of the country in which patent protection is sought.

National patent systems have existed in Europe for quite some time. Historically, patents were created nationally as monopoly rights intended to promote competition within the economy.[8] In essence, patents represented a deal with the state that would give the right holder a monopoly in the market place for a specified term.[9] Original patents for inventions conferred privileges rather than property rights to the inventor. This changed because there was a societal need to recognise and protect an invention as property.[10]

The aim of introducing national patent systems, as they exist today, was to boost innovation and to protect inventions using property rights: the basis being that the cost of investment in research and development could be retrieved from the ability to charge more for the protected product or process and therefore, encourage further innovation. That aim remains today.[11] However, as national patent rights are territorial, it was generally believed that if patent protection is granted in one country, it should be of benefit in the territory of that particular country only.[12] Each country has consequently designed its patent laws to benefit its own economy, resulting in a group of national laws intended to 'meet the perceived commercial and moral needs of its inhabitants'.[13] To deal with the tension that arose between intellectual property rights and the creation of the

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7 As required by Article 28 of the Agreement on Trade Related Aspects of Intellectual Property Rights 1994 (TRIPs), which sets out the minimum standards for the protection of intellectual property for the Members of the World Trade Organisation (WTO).

8 Hugh Laddie, 'National I.P. Rights: A Moribund Anachronism in a Federal Europe?' (2001) 23(9) EIPR 402.

9 Laddie, 402.

10 Edward Walterscheid, 'The Early Evolution of the United States Patent Law: Antecedents (Part 1)' [1994] 76 J Pat & Trademark Off Soc'y 697.

11 Laddie, 402.

12 Laddie, 403.

13 Laddie, 403.

internal market by removing barriers to trade between Member States, the CJEU introduced the doctrine of exhaustion.[14] The doctrine of exhaustion gives an intellectual property right owner the right to the first marketing of the product in the European Economic Area (EEA). Once first marketing has occurred under the conditions developed by the CJEU, the right is exhausted, meaning that particular product, or those particular products, can be re-sold within the EEA. By introducing the doctrine of exhaustion to deal with the first marketing of products protected by intellectual property law, national rights, including patents, remain subject to national laws. Due to of the differences between national intellectual property systems, their abolishment was regarded as infeasible and undesirable.[15] Instead, the intention was to balance the rights of the intellectual property right owner and the need to achieve an internal market in the European Union.[16]

Ultimately, national patents are dealt with on a national level, national court systems are used to defend the validity of patents, and relief, in the form of injunctions or damages, is also decided on a national level.

The success of national patent systems in boosting innovation in particular states (as well boosting innovation in general) has been debated.[17] Regardless, the initiation of European cooperation required the progression of national patent

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[14] The steps leading up to this point can be seen through case law, including, but not limited to: Joined Cases 56 and 58-64 *Établissements Consten S.à.R.L. and Grundig-Verkaufs-GmbH v Commission of the European Economic Community* ECLI:EU:C:1966:41; Case 24/67 *Parke, Davis & Co v Probel, Reese, Beintema-Interpharm and Centrafarm* ECLI:EU:C:1968:11; Case 78/70 *Deutsche Grammophon Gesellschaft mbH v Metro-SB-Grossmärkte GmbH & Co. KG.* ECLI:EU:C:1971:59; and Case 15/74 *Centrafarm BV and Adriaan de Peijper v Sterling Drug Inc.* ECLI:EU:C:1974:114.

[15] Justine Pila, 'A Constitutionalized Doctrine of Precedent and the *Marleasing* Principle as a Bases for a European Legal Methodology' in Ansgar Ohly and Justine Pila (eds), *The Europeanization of Intellectual Property Law: Towards a European Legal Methodology* (OUP 2013) 242.

[16] Richard Davis et al, *Tritton on Intellectual Property in Europe* (4th edn, Sweet & Maxwell 2014) 1097; and Alain Strowel and Hee-Eun Kim, 'The Balancing Impact of General EU Law on European Intellectual Property Jurisprudence' in Ansgar Ohly and Justine Pila (eds), *The Europeanization of Intellectual Property Law: Towards a European Legal Methodology* (OUP 2013) 130.

[17] See, for example: Dominique Guellec and Bruno Van Pottelsberghe de la Potterie, *The Economics of the European Patent System* (OUP 2007).

systems to allow for the protection of inventions on a wider geographical scale. Although present national patent systems give the patentee numerous advantages, European harmonisation was not a priority when national patent law was first introduced, and so, a number of problems have also been faced as a result. This is especially so as the patentee is seen more and more to be operating in an increasingly globalised economy.

Over time, the general purpose of national patents has not radically changed; the protection of inventions and the promotion of innovation remain central. However, the context in which a patent is granted today is starkly different to what it was. Due to the advent and continuing development of technologies, changes in the economy, Europeanisation, and globalisation, new challenges have arisen for patent systems in Europe and so change has been necessary.

Even though great strides for the harmonisation of national patent systems have been taken, the procedures of national patent systems still differ between countries. The Paris Convention for the Protection of Industrial Property of 1883 (Paris Convention)[18] established a union for the protection of industrial property through equal national treatment and the creation of a priority right, which allows applicants to use their first filing date as the filing date in another participating nation. Substantive patent law has been largely harmonised by the Strasbourg Patent Convention of 1963,[19] the European Patent Convention of 1973, and the Community Patent Convention/Agreement of 1975/1989.[20] The Member States of the European Union must also take into account the provisions of the Biotech

[18] Convention for the Protection of Industrial Property 1883 (Paris Convention).

[19] Convention on the Unification of Certain Points of Substantive Law on Patents for Invention 1963 (Strasbourg Patent Convention).

[20] Convention for the European Patent for the Common Market (15 December 1975) (Community Patent Convention) (CPC); although the Community Patent Convention/Agreement of 1975/1989 never entered into force, some Member States changed their patent laws in preparation for its implementation.

Directive[21] and the Supplementary Protection Certificate Regulations.[22] The Contracting States to the EPC also take the provisions of the Biotech Directive into account owing to their incorporation into the Implementing Regulations to the EPC.

Ultimately, however, the procedures for obtaining a national patent depend on the law of the state in which patent protection is sought.[23] Once an application is sent to a national patent office, that specific office will carry out a search for prior art and an examination of the patent application according to local legislation. The patent is then enforceable in that country and will only have effect in its territory. These patents are not guaranteed validity and are subject to proceedings in the granting state's national courts or patent offices. Until the patent is declared valid, proceedings can be taken against it. This is the case for all applications to each national patent office and those patents subsequently granted therein.

A number of perceived advantages and disadvantages have been accredited to national patent systems. While they are often spoken of as outdated in the current economic and technological environment,[24] from a user's perspective, national patent systems can give certain advantages to the patentee. An applicant may favour this route when his invention is suited to smaller geographic areas, his funds are limited, or his operations are exclusively in the national market.[25] For some applicants it makes financial sense to file for national

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21 Council Directive 98/44/EC of the European Parliament and of the Council of 6 July 1998 on the legal protection of biotechnological inventions [1998] OJ L 213/13 (Biotech Directive).

22 Council Regulation (EC) 469/2009 of the European Parliament and of the Council of 6 May 2009 concerning the supplementary protection certificate for medicinal products [2009] OJ L 152/1 and Regulation (EC) 1610/96 of the European Parliament and of the Council of 23 July 1996 concerning the creation of a supplementary protection certificate for plant protection products [1996] OJ L 198/30.

23 The TRIPs Agreement provides for some minimum standards regarding procedure.

24 Laddie, 402.

25 Dominique Guellec and Bruno Van Pottelsberghe de la Potterie, *The Economics of the European Patent System* (OUP 2007), 157.

protection in a small number of European countries rather than throughout Europe. This is particularly advantageous given that such applicants will still have the option, if their funds were to increase or their invention were to become more popular throughout Europe, to apply for patents for the same invention in other countries, within the appropriate time period. Some commentators have noted that most applicants begin with a national filing, also known as a priority filing.[26] This priority filing gives the applicant a date from which the first legal application is filed from which they can then continue, with a grace period of one year,[27] to extend their application to other European countries.[28]

On the other hand, it has been seen as a disadvantage that national patent applicants must comply with the differing procedural and substantive requirements of the relevant country;[29] thus, a person seeking protection for the same invention in more than one country may receive different outcomes. This problem is exacerbated in the context of patent enforcement, where there is less substantive harmonisation of national interpretations of patent law, and greater scope for divergence in the procedures of the national courts.

One of the biggest disadvantages accredited to the national patent system is the fact that cross-border enforcement is only possible to a limited extent.[30] This was confirmed by two judgments handed down by the Court of Justice of the European Union (CJEU), increasing the difficulty for a patent owner to enforce a patent simultaneously in several countries in which it has been validated.[31] Without the possibility of effective cross-border enforcement, divergent decisions

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[26] Guellec and Van Pottelsberghe de la Potterie, 156.
[27] The grace period was introduced by the Paris Convention.
[28] Guellec and Van Pottelsberghe de la Potterie, 156.
[29] Laddie, 403.
[30] Jan Brinkhof and Ansgar Ohly, 'Towards a Unified Patent Court in Europe' in Justine Pila and Ansgar Ohly (eds), *The Europeanisation of Intellectual Property Law: Towards a Legal Methodology* (OUP 2013).
[31] Case C-4/03 *Gesellschaft fur Antriebstechnik mbH & Co KG v Lamellen und Kupplungsbau Beteiligungs KG* ECLI:EU:C:2006:457 and Case C-539/03 *Roche Nederland BV v Frederick Primus* ECLI:EU:C:2006:458. These cases will be discussed in further detail in Chapter Eight.

on the same inventions can occur in Europe. The result is considerable inefficiency and legal uncertainty; however, at the same time, a degree of security remains for the patentee who may lose his patent in one country but retain it in another, allowing him to continue with his business.

As a result of divergent interpretations of substantive patent law by different national courts, a further problem that can occur is forum shopping. Simply put, forum shopping occurs when proceedings are strategically taken in courts that are well known for being, for example, pro-patentee, and thus more likely to find infringement in certain types of cases than the courts of other states. National patent offices may also be susceptible to forum shopping due to their different examination standards. Some countries have been found to have more stringent search authorities, such as Germany, whereas others have been found to be more permissive.[32]

Also of note regarding the divergent practices of national courts is the procedure of bifurcation, sometimes used in validity and infringement proceedings in countries such as Austria, Poland and Germany. Essentially, two courts exercise independent jurisdiction, one addressing infringement and the other addressing validity. For example, in Germany, where infringement proceedings progress much faster than elsewhere in Europe, if the validity of a patent is contested, the court shall stay the infringement proceedings if it is likely that the patent will be revoked on the balance of probabilities.[33] The revocation claim will be referred to the competent court. The result of bifurcation is that until a decision is made on validity, which can take longer than infringement

[32] Dietmar Harhoff, 'Research Paper: Challenges Affecting the Use and Enforcement of Intellectual Property Rights' [2009] Economic Value of Intellectual Property Forum <http://collections-r.europarchive.org/tna/20111122230526/http://www.ipo.gov.uk/ipresearch-challenges-200905.pdf> accessed 30 September 2016, 9.

[33] For more detailed information on bifurcation in Germany, see: Maximillian Haedicke and Henrik Timmann, *Patent Law: A Handbook* (CH Beck 2013) 835-847.

proceedings, competitors are left unaware as to the definite result of the case and must then wait for the matter to be decided before taking further action. Furthermore, if an infringement action does go ahead without a decision on validity, the decision on infringement may need to be amended if a patent, which has been declared infringed, is later found to be invalid.

Another major disadvantage that has been raised is the potential cost of using the national patent system. If protection is only required in a small number of European countries the national patent system can be cost-effective. However, if patent protection is sought throughout Europe, the cost increases significantly. The main reasons for the significant cost of the national patent system is the requirement in many states that an application is sent to the national patent office in its official language, coupled with the cost of hiring numerous local patent attorneys and paying renewal fees in each country.

Applying for protection via the national patent system can offer the experienced applicant a number of tactical advantages, including (by filing in certain countries) a less stringent examination of his application and invention, a more suitable forum for enforcement, and lower costs depending on the protection sought.[34] By avoiding those patent offices with a heavier flow of applications, he may also be able to minimise delays in securing a patent, or alternatively to maximize them, thereby keeping his competitors uncertain regarding the patentability of his invention for longer, potentially causing them to move into another area, leaving the applicant competition-free. However, a number of disadvantages for the patentee have also been highlighted, which include the possibility of divergent decisions on the grant and enforcement of a patent on the

[34] Otto Bossung, 'The Return of European Patent Law to the European Union' (1996) 27(3) IIC 287, 289 and 296.

same invention, the cost of securing protection throughout Europe, and the impact of onerous translation requirements.

So too for the public, numerous advantages and disadvantages are apparent. For example, once a patent is granted the information contained in that invention can be understood and harnessed for future creations, thus benefiting society. However, without certainty regarding the validity of that patent, less research may be undertaken, as the cost of investment may not be recovered.

III. THE EUROPEAN PATENT SYSTEM

The need for a European patent system arose from the issues faced by patent applicants with regard to the difficulty of applying for patents through the national patent system, namely, numerous applications and onerous translation requirements, and from the interest of the public regarding the dissemination of information and the quality of granted patents.

The EPC was signed at a diplomatic conference in Munich in 1973 and came into force four years later. It is a supranational agreement by a group of EU and non-EU Contracting States. The European patent system is governed by the EPC, which established a system for the grant of European patents in the form of a bundle of national patents, leaving post grant matters (with the exception of oppositions within nine months and appeals before the EPO) within the role of individual states. The EPC was also devised in order to assist with the harmonisation of patent law within Europe.

The EPC established the EPO, the body responsible for granting European patents – its *raison d'être* being the search/examination and granting of bundles of

national patents.[35] The EPO is: a stand alone body, unrelated to other European institutions; governed by the Administrative Council of the European Patent Organisation, which is made up of representatives from the EPC's Contracting States; and self-financed from fees paid by applicants and from payments made by Contracting States in respect of renewal fees for European patents levied in those states.[36] A means of applying for patent protection in a number of national states through one application was subsequently established, the substantive provisions of the EPC building upon those of the Strasbourg Patent Convention.[37]

The aim of the EPC was to introduce this new system of granting patents that would not abolish the old national systems, outlined above, but also allow the applicant to apply for a patent in a number of countries by means of one application. It is concerned with providing a less wasteful, but nonetheless substantial examination of patent applications.[38] However, not only must translations be filed in certain Contracting States in which protection is sought, the patent must also be renewed in each state, according to its national legislation and fee structure.[39]According to Article 64 EPC, 'a European patent shall confer on its proprietor, in each Contracting State in respect of which it is granted, the same rights as would be conferred by a national patent granted in that State'.[40]

Although the process involved in the application for a European patent includes a significant number of requirements, it is relatively simple. The patent applicant is obliged by Article 14(6) EPC to submit their application to the EPO in one of the three official languages of the EPO (English, French, or German).[41]

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35 Guellec and Van Pottelsberghe de la Potterie, 155.
36 Guellec and Van Pottelsberghe de la Potterie, 27.
37 Justine Pila, 'Article 53(b) EPC: A Challenge to the *Novartis* Theory of European Patent History' [2009] 72 MLR 436, 437.
38 William Cornish, David Llewelyn and Tayna Aplin, *Intellectual Property: Patents, Copyright, Trade Marks and Allied Rights* (7th edn, Sweet & Maxwell 2010) 134.
39 Guellec and Van Pottelsberghe de la Potterie, 156.
40 Article 64 EPC.
41 Article 14(6) EPC.

European patent applications must contain: a request for the grant of a European patent; a description of the invention; one or more claims; any drawings referred to in the description or the claims; and an abstract.[42] The application will be sent to the EPO for search and examination against the state of the art to ensure that it fulfils the criteria for patentability. The result of a successful application to the European patent system is a bundle of national patents, enforced through national courts.

The EPC has been widely regarded as successful in achieving its aims. The establishment of the EPC, and in turn the EPO, has somewhat centralised the patent application system in Europe by ensuring the examination of patents on behalf of all Contracting States.[43] The EPC has also strengthened patent systems in many countries, as previous to its implementation, some had weak or no examination standards and uncertain enforcement.[44] Since its inception, the EPC has also been regarded as successful in terms of lowering the amount of separate national applications required for patent protection in a number of Contracting States, thereby reducing costs and inefficiencies. Applicants often file a single national application, subsequently claiming priority when applying to the EPO. An applicant will most likely choose this method of application if patent protection is required throughout a number of European member states, as the initial filing procedure is less cumbersome than separately applying for numerous national patents.

However, as the result of an application to the EPO is a bundle of national patents rather than a single unitary patent, certain weaknesses have been

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42 Article 78 EPC.
43 Guellec and Van Pottelsberghe de la Potterie, 155.
44 Guellec and Van Pottelsberghe de la Potterie, 29.

accredited to the European patent system.[45] The application for a European patent is simple; however, once it reaches the granting phase some disadvantages become apparent.

If the EPO examination is successful, a patent is granted and will be enforceable in the Contracting States for which it was granted.[46] However, for this to become a reality, the granted European patent must be translated into the official language of the Contracting States concerned, leading to what is in reality, limited harmonisation.[47] As a result of these translation requirements, the patentee will potentially face significantly high fees. For example, according to the European Commission, a European patent which designates twenty-seven EU member states[48] will cost €36,000 and, by comparison, in the US that price falls to €2000, and in China it falls even lower to an average of €600.[49] The majority of fees are used for translation and other costs linked to validation, such as fees of local patent offices and costs for local patent agents.[50] This is one of the major disadvantages of the European patent system that we have today. However, some steps have been taken in order to reduce costs significantly in the area of translation. For example, the London Agreement 2000 has significantly reduced the number of required translations. This agreement provides that once granted, translation of the whole specification (as distinct from the claims) into an official language of a participating state will not be necessary once the specification is in

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45 Jan Willems, 'The EPC: The Emperor's Phantom Clothes? A Blueprint instead of a Green Paper' [1998] 1 IPQ 1.

46 Michael LaFlame, Jr, 'The European Patent System: An Overview and Critique' (2010) 32(3) Houston Journal of International Law 605, 613.

47 EPO, 'National Law Relating to the EPC' [2015] <http://www.epo.org/law-practice/legal-texts/html/natlaw/en/iv/index.htm> accessed 30 September 2016, IV.

48 Croatia have subsequently joined the EU, however, statistics are only for the cost of the previous twenty-seven EU Member States.

49 European Commission Memo, 'Patent reform Package – frequently asked questions' <http://europa.eu/rapid/press-release_MEMO-12-970_en.htm?locale=en> accessed 30 September 2016.

50 European Commission Memo, 'Patent reform Package – frequently asked questions' <http://europa.eu/rapid/press-release_MEMO-12-970_en.htm?locale=en> accessed 30 September 2016.

one of the three official languages of the EPO. For example, France would not require the translation of a specification granted in German or English. Twenty-one of the current thirty-eight Contracting States have signed up to the London Agreement 2000.[51]

Another aspect of the European patent system that applicants have to consider is the possibility of bringing appeal proceedings to the EPO. If an application to the European patent system initially fails, patentees have the option to appeal a decision of the Examining Division to the Boards of Appeal of the EPO.

The Boards of Appeal are independent from the EU and their decisions are only bound by the EPC. There are currently twenty-eight Technical Boards of Appeal, as well as the Legal Board of Appeal, the Enlarged Board of Appeal and the Disciplinary Board of Appeal. The Technical Board of Appeal and the Legal Board of Appeal examine appeals from the decisions of the Examining, Legal and Opposition Divisions of the Office.[52]

Furthermore, to ensure uniform application of the law, a matter may be referred to the Enlarged Board of Appeal of the EPO.[53] The Enlarged Board of Appeal can also issue decisions when the case law of the Boards of Appeal becomes inconsistent and opinions when it is referred a question from the President of the EPO.[54] The Disciplinary Board of Appeal hears appeals against decisions of the Disciplinary Committee and the Disciplinary Board of the EPO on infringement of the rules of conduct for professional representatives before the EPO.

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[51] EPO, 'National Law Relating to the EPC' [2015] <http://www.epo.org/law-practice/legal-texts/html/natlaw/en/iv/index.htm> accessed 30 September 2016, IV.
[52] Article 21 EPC.
[53] Article 22 EPC.
[54] Article 22 EPC.

If an initial decision is brought before the Boards of Appeal of the EPO, a notice of appeal must be filed within two months of the notification of the contested decision along with a fee. The Board will then decide on the matter, if the appeal is admissible.[55] If so, the Board may either exercise any power within the competence of the department responsible for the decision that has been appealed, or remit the case for further examination.[56]

It must also be noted that a European patent can also be subject to opposition proceedings by any member of the public. Therefore, the possibility remains that a patent could be contested post-grant, within nine months. Under Article 100 EPC:

> Opposition may only be filed on the grounds that:
>
> (a) the subject matter of the patent is not patentable under Articles 52-57 EPC;
>
> (b) the European patent does not disclose the invention in a manner sufficiently clear and complete for it to be carried out by a person skilled in the art;
>
> (c) the subject matter of the European patent extends beyond the content of the application as filed, or, if the patent was granted on a divisional application or on a new application filed under Article 61, beyond the content of the earlier application as filed.

[55] Article 110 EPC.
[56] Article 111 EPC.

If an opposition procedure is initiated, it must be filed in writing at the EPO, along with an opposition fee. If the opposition is permitted, the grounds on which it was filed are examined and the patentee has the possibility to reply. An opposition procedure can result in a number of decisions. The patent can be maintained as granted, maintained with amendments, or revoked. If revoked, it is as if the patent never existed.[57] This is the only opportunity for third parties to have a patent revoked centrally. As long as no opposition is filed within nine months of the date of publication of the grant, the patentee is free to continue their business, unless an infringement or validity action is brought against them.

A further shortcoming that has been accredited to the European patent system, similar to that of national patent systems, stems from the fact that most infringement and all validity claims of a European patent are dealt with at national level, creating a level of legal weakness and uncertainty within the system. As well as cost, this is one of the major criticisms of the European patent system. If a case is brought before a number of national courts on the same issue, as mentioned above, there is a chance that, for example, a court in the United Kingdom (UK) will come to a different conclusion to that of a court in Germany. This was the case in the *Improver v Remington (Epilady)* litigation.[58] When the *Epilady* case came before the courts, the German Court of Appeal reached the opposite conclusion to the UK courts in finding infringement.

Although there have been a great strides by national courts to implement the rules of the EPC consistently, without a law in place to require this, *Epilady* could happen and has happened again on numerous occasions.[59] Furthermore,

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[57] Article 68 EPC.

[58] *Improver Corp v Remington Consumer Product Ltd* [1990] F.S.R. 181 (*Epilady*).

[59] For example: *Novartis AG and Cibavision AG v Johnson & Johnson Medical Ltd and others*, EP 0819258 – High Court of the United Kingdom [2009] EWHC 1671 (Pat), Tribunal de Grande Instance de Paris, March 25, 2009 (07/13504), and District Court of The Hague, 6 May 2010, KG RK 10-1214; *Document Security Systems v European Central Bank*, EP 0455750 –

there are currently limited means of cross-border enforcement. This is true notwithstanding cases such as *Actavis v Eli Lilly*[60] and *Human Genome Science Inc. v Eli Lilly and Company*.[61]

In *Actavis v Eli Lilly*, Arnold J held that if the UK designation of a European patent is at issue, and validity is not contended, the UK court can decide whether to grant a declaration of non-infringement in respect of French, German, Italian and Spanish designations of a European patent.[62] A year later the decision was confirmed by the Court of Appeal.[63] However, the case was remitted to the Patents Court in 2014, with Actavis seeking further declarations of non-infringement.[64] Arnold J concluded that a declaration of non-infringement for all designations was possible.[65] Subsequently, the Court of Appeal refused to grant any declaration of non-infringement.[66] Although the Court of Appeal refused to grant a declaration of non-infringement on any designation of the European patent,[67] the possibility of granting such a declaration for foreign patents when validity is not contended, remains possible. This would assist in the promotion of consistent jurisprudence throughout Europe, however, when dealing with validity the problem of divergent decisions of different designations still exists. Therefore, the circumstances in which this kind of process could be used are limited.[68]

This case also involved issues relating to both direct and contributory infringement. The final decision made by the UK court on the matter of

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the patent in question was upheld in Germany, the Netherlands & Spain and invalidated in the UK, Austria, Belgium and France.

60 *Actavis Group hf v Eli Lilly & Company* [2012] EWHC 3316 (Pat).

61 *Human Genome Science Inc. v Eli Lilly* [2011] UKSC 51.

62 *Actavis v Eli Lilly* 2012, [30].

63 *Actavis Group hf v Eli Lilly & Company* [2013] EWCA Civ 517.

64 *Actavis UK Ltd & Ors v Eli Lilly & Company* [2014] EWHC 1511 (Pat).

65 *Actavis v Eli Lilly* 2014, [307].

66 *Actavis UK Ltd & Ors v Eli Lilly & Company* [2015] EWCA Civ 555.

67 The Court of Appeal granted remittal to the Patents Court as Actavis had attempted to circumvent the claim by using a different solution.

68 Robert Lundie-Smith, 'UK to be one-stop-shop for non-infringement across Europe?' (2013) 8(4) JIPLP 258, 259.

contributory infringement conflicted with the decision on the same issue when the case was heard at the German courts.[69]

Also of note is the Supreme Court decision in *Human Genome Science Inc. v Eli Lilly and Company*.[70] This case involved a claim by Eli Lilly for revocation of a patent on the basis that the disclosed effects of the biological invention were speculative. Of importance in this case was the fact that the Supreme Court, in agreement with the Court of Appeal, held that the UK court is not bound by decisions of the Technical Board of Appeal of the EPO.[71] However, it was also stated that in cases where the Technical Board of Appeal follows a consistent approach to a certain issue in numerous decisions, usually, the national court should adopt that approach.[72] While this may reduce the scope for contrasting outcomes from different national courts, it is not eliminated.

In conclusion, although the implementation of the EPC created a centralised procedure for the grant of European patents, it did not harmonise the law to its fullest extent, with important issues such as entitlement, the rights conferred, and exceptions to infringement, remaining matters for national law. Nor did it rectify the inefficiencies and costs arising from the need for each European patent to be validated, translated and litigated at national level.

IV. THE INTERNATIONAL PATENT SYSTEM

Prior to 1977, so-called international patents, in a legal and organisational sense did not exist and unexamined patents were seen as a nuisance by many

[69] *Actavis UK Ltd & Ors v Eli Lilly & Company* [2015] EWCA Civ 555 [95] – [99].
[70] *Human Genome Science Inc. v Eli Lilly* [2011] UKSC 51.
[71] *Human Genome Science Inc. v Eli Lilly*, [87].
[72] *Human Genome Science Inc. v Eli Lilly*, [87].

industrialised countries.[73] As mentioned above, many countries have different standards of examination, some being described as very stringent and some less so. The extremes of either situation can have a negative impact on the quality of granted patents. It was therefore seen as necessary to introduce a system that could correct this issue by providing an international search and examination that would be streamlined in all Contracting States. The expectation was that this new system would ensure that those offices that had been too stringent or too flexible would now benefit from an efficient, smooth-running system with little or no discrepancies in their search and examination standards.

In 1970, the Patent Cooperation Treaty (PCT) was signed and came into force in 1978 as a special agreement under the Paris Convention. It creates an 'international' patent system that is administered by the World Intellectual Property Organisation (WIPO) and available to all Contracting States of the Paris Convention. Under the PCT, a user can apply for patent protection simultaneously in a large number of countries around the world by filing an international application and receiving an international priority filing date. Today, there are 151 Contracting States.[74] The PCT is, first of all, a treaty for the rationalisation and cooperation of the filing, searching and examination of patent applications and for the disclosure of technical information.[75]

The aim of the international patent system is two-fold: first, to create an international prior art search for patents worldwide by an International Search Authority (ISA); and second, to establish an International Preliminary Examination.[76] However, the international patent system also provides a

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[73] Cornish et al, 131.

[74] According to: <http://www.wipo.int/pct/en/pct_contracting_states.html> accessed 30 September 2016.

[75] WIPO, 'Intellectual Property Handbook' [2004] <http://www.wipo.int/about-ip/en/iprm/> accessed 30 September 2016, 277.

[76] Cornish et al, 132.

streamlined procedure for patent applicants who require a starting point for patent protection around the world.

The procedure of the international patent system is quite similar to that of the European patent system, but on a larger scale. An international application may be filed by those who are nationals or residents of a Contracting State through a Receiving Office (national patent office or the EPO) or directly to the International Bureau of WIPO.[77] The application must contain: a request; a description; one or more claims; one or more drawings (where required); and an abstract.[78] This single application is filed with a Receiving Office in one of the prescribed languages of the PCT.[79] The Receiving Office checks the application for formalities and copies are provided for the International Bureau and the ISA. It also records the international filing date of the application.[80] The international application launches a universal search of prior art known as an international search, which is carried out by the prescribed ISA.[81] Once the international search has been completed, if the applicant has so requested, an international preliminary examination is undertaken. The objective of this examination is to formulate a preliminary, non-binding opinion on whether the claimed invention is novel, inventive and capable of industrial application.[82] The examination report will not contain an opinion as to whether the claimed invention is patentable.

International search and examination reports (if requested) are sent to the applicant and the International Bureau. The applicant then moves the process to each of the patent offices of the countries in which protection is required, wherein it is decided whether a national patent will be granted. The international patent

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77 Article 9(1) PCT.
78 Article 3(2) PCT.
79 Article 10 PCT.
80 Article 11 PCT.
81 International Search Authorities are major patent offices appointed by the PCT Assembly that are capable of carrying out an extensive inspection and examination of prior art.
82 Article 33 PCT.

system does not grant national or international patents. It is solely procedural and results in an international priority filing date.

The procedure has been changed several times to make it more applicant-friendly.[83] In 2004, the Written Opinion of the International Search Authority (WOISA) was introduced, which gives applicants the choice of receiving a non-binding opinion on the patentability of their invention.[84] Accordingly, most applicants generally request this opinion.[85] Prior to this change, to proceed, the applicant also had to include a list of countries in which they would be willing to validate the application.[86] However, this is no longer necessary.

The end result of proceeding under the international patent system is an international priority date, and one or more national patents (if the applicant is ultimately successful in the national phase). Therefore, enforcement and relief is dealt with at national level. As with the EPC, the PCT has been widely regarded as successful in achieving its aims, and gives patent applicants a number of advantages that benefit them in their search for patent protection.

Patent applicants tend to file with the PCT for many reasons. One is for the international priority filing date. This gives an applicant thirty-one months from that date to enter into the national or regional phase. Taking a European perspective, an initial application through the PCT procedure allows the patentee to subsequently proceed with the application for patent protection either through the national patent system, or the European (EPC) patent system, using their priority filing date from the PCT procedure for thirty-one months, which is significantly longer than the period of priority offered by the EPO. Reportedly, most applications to the EPO are subsequent applications following a national

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83 LaFlame, 605 and 611.
84 LaFlame, 611.
85 Sir Robin Jacob, Daniel Alexander QC and Matthew Fisher, *Guidebook to Intellectual Property* (6th edn, Hart Publishing 2013) 30.
86 Guellec and Van Pottelsberghe de la Potterie, 26.

filing or an application proceeding from the PCT procedure.[87] This can be verified by EPO statistics from 2015, indicating that most applications to the EPO are PCT applications entering the regional phase.[88] Furthermore, by having this lengthy period of time from the priority date, the patentee has the opportunity to assess whether his invention will be successful in different markets, and subsequently whether to continue on the path of patent protection, which comes at a significant cost.[89]

The international patent system can also reduce costs for the patentee in another manner. As the international search and examination reports are sent to the applicant, he will have an idea as to whether his invention is patentable. If the report shows a significant amount of anticipatory prior art, continuing on the national patent route will not be worth the expense. Having this information before having to pay additional translation costs is of advantage to the patent applicant, who can then decide whether or not to pursue the patent at national level.

The international patent system is also attractive due to its international nature. By having a search and examination completed world wide, and a designated priority date, the next stage of procedure (gaining protection in individual countries) is quicker.[90] This advantage extends also to the fact that the international patent system it is a very beneficial starting point for entering into a competitive international market.

However, although many advantages have been accredited to the international patent system, some problems persist and a number of criticisms of

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87 Guellec and Van Pottelsberghe de la Potterie, 157.

88 Available at: <http://www.epo.org/about-us/annual-reports-statistics/annual-report/2015/statistics/patent-filings.html#tab2> accessed 30 September 2016.

89 Lionel Bently and Brad Sherman, *Intellectual Property Law*, (4th edn, OUP 2014) 398.

90 Bruno Van Pottelsberghe, 'Lost Property: The European patent system and why it doesn't work' [2009] IX Bruegel Blueprint Series <http://bruegel.org/2009/06/lost-property-the-european-patent-system-and-why-it-doesnt-work/> accessed 30 September 2016, 4.

the system have been made. One such criticism is that the international search and examination is optional. The problem could therefore persist that not all patents will be of the same quality due to the remaining divergences between search and examination processes.

The international patent system also raises concerns for those in favour of a unitary European patent system. Adding another patent system on top of those that already exist in Europe increases fragmentation in the European patent field. With the addition of the international patent system, there are now three systems of patent protection that exist in Europe. Instead of replacing pre-existing systems, new systems introduced to integrate and harmonise the area can be said to have done the opposite. Instead of having a European unitary patent, a patent applicant can get a national patent, a European bundle of national patents, or an international bundle of national patents. Although the result of each system is one or more national patents, complexity and legal uncertainty arise by having numerous different procedures and tribunals to deal with the different route to obtaining them. For the moment, each national or regional office will decide the ultimate fate of patents – whether they will be accepted and eligible for protection at the national level.[91] Further, the enforcement of a patent remains the authority of the countries in which the patent will be protected.[92]

V. CONCLUSION

Patents have significantly progressed over the years, evolving from mere privileges to enormously valuable property rights, now seen as central business

[91] Cornish et al, 132.
[92] LaFlame, 605 and 610.

assets.[93] The initial purpose of patents, and the structure of patent systems have remained largely unchanged. However, what has changed is the nature and purpose of patent systems. Initially occupied with promoting innovation in the country in which it was granted, a progression towards European and global harmonisation has advanced this initial purpose to one that will promote integration, Europeanisation and globalisation.

Intellectual property, specifically patents, are managed strategically, valued and leveraged with a view to generating returns through active licensing[94] and the patent system must continue to adapt to meet the needs of a globalised marketplace in the 21st century.[95] Therefore, it is important now, more than ever, to guarantee that inventions are afforded adequate protection in the future, especially with the enormous changes that have occurred in technology to date and without doubt, those changes that will continue in the following years.

Three routes to obtaining patent protection exist in Europe today – the national, European (EPC) and international (PCT). Each is supported by its own separate but interconnecting system and exists for a different purpose and to serve a different community. Consistent with this, each has its own perceived strengths and weaknesses. However, the ultimate result of each is the grant of one or more national patents, each of which is restricted to the territory of the granting state. As a result, the European and international patent systems are as fragmenting as they are harmonising. On the one hand, they have streamlined the procedure for obtaining patents and standards of search and examination. While on the other hand, they have also added further legal, institutional and procedural layers to the

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[93] Maria Pluvia Zuniga and Dominique Guellec, 'Who licences out patents and why? Lessons from a business survey' [2009] 5 STI Working Paper <http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1399144> accessed 30 September 2016.

[94] World Intellectual Property Report, 'Breakthrough Innovation and Growth' [2015] <http://www.wipo.int/econ_stat/en/economics/wipr/> accessed 30 September 2016, 37.

[95] Elizabeth Siew Kuan Ng, 'Patent trolling: innovation at risk' (2009) 31(12) EIPR 593, 608.

existing national patent systems. This has created a number of overlapping laws of different scope and jurisdiction, as well as numerous institutions to interpret those laws. It has been with a view to reducing this fragmentation, for the EU Member States at least, that a unitary patent and patent system have recently been created.

CHAPTER TWO: THE PROPOSED EUROPEAN UNITARY PATENT SYSTEM

I. INTRODUCTION

The pursuit of a European unitary patent system for the EU Member States has been longstanding and contentious. In December 2012, two EU regulations on the implementation of enhanced cooperation in the area of unitary patent protection were approved.[1] Furthermore, in February and March of 2013, twenty-five out of twenty-seven EU Member states signed an Agreement to create a unified patent court to support an (almost) EU wide unitary patent system.[2] Attempts to introduce such a system have been ongoing since 1949; however, in the past decade, there has been a strong political momentum to complete the task.

The implementation of a European unitary patent would create a second European patent, one that has the aim of conferring uniform and unitary protection across some, if not all EU Member States, rather than having the same effect as its predecessors, which remain subject to the territoriality of national laws. If implemented, it will be the only system in the EU to confer a supranational patent. The establishment of a European patent court would create a single jurisdiction for patents in Europe, with the aim of providing cross-border, specialised judgments in patent disputes, rather than multiple, individual, and potentially diverse national decisions. The effect of such a court would be to reduce the risks and cost involved with multiple litigation and divergent interpretations of substantive patent law.

The benefits of a European unitary patent system are plentiful, however, the success of such a system will depend on whether it is accepted, which will in

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1 Council Regulation (EU) 1257/2012 of the European Parliament and of the Council of 17 December 2012 implementing enhanced cooperation in the area of the creation of unitary patent protection [2012] OJ L 361/1 (Regulation 1257) and Council Regulation (EU) 1260/2012 of the European Parliament and of the Council 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] OJ L 361/89 (Regulation 1260).

2 Agreement 2013/C on a Unified Patent Court [2013] OJ L 175/01 (UPCA).

turn depend on a number of factors, including the standard of the legislation concerned.

II. THE RESURGENCE OF THE COMMUNITY PATENT (2000 – 2009)

The initiative to create a European unitary patent system has gone through many phases. In 2000, however, a new stage began, leading to a resurgence of negotiations on a European unitary patent system, and ultimately to the approval of the creation of a unitary patent system by a decision of the European Council in order to promote the aims and objectives of the internal market.[3]

On the basis of that decision, the Commission prepared a proposal for a regulation on a Community patent.[4] The main aims behind the proposal were to introduce a unitary patent right granted by the European Patent Office (EPO), reduce translation costs, and introduce a specialised and centralised patent court that would operate alongside the Court of Justice of the European Union (CJEU). The Community was to accede to the European Patent Convention (EPC),[5] and the new patent system was to co-exist with those already available, as described in Chapter One.

The proposal was debated extensively. By 2003, after numerous comments and amendments, a text was drafted proposing political compromises on the main issues of debate regarding the proposed regulation. Those issues included the jurisdictional system, languages and costs, the role of the national patent offices,

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3 This idea was based on: Commission Paper (EU) on Promoting innovation through patents – Green Paper on the Community patent and the patent system in Europe [1997] COM (97) 314 final, and subsequent consultations.

4 Proposal for a Council Regulation (EU) 2000/C 337 E/45 on the Community patent [2000] COM (2000) 412 final.

5 Convention on the Grant of European Patents of 5 October 1973 (European Patent Convention) (EPC), amended in 2000.

and the distribution of fees.[6] The so-called Common Political Approach[7] was adopted and a revised proposal on a Community patent was distributed for further debate.[8] Meanwhile the Commission drafted two documents. One on establishing a Community Patent Court, which would have been a specialised chamber of the EU Court of First Instance (now the General Court), and another on conferring jurisdiction on the CJEU.[9] Neither proposal was met with approval.

Discussion continued, however, resulting in yet another draft proposal for a Community patent.[10] That later proposal outlined that the changes therein were aimed at finding a compromise for the remaining outstanding issues regarding the compulsory translations of the Community patent and the effect of incorrect translations. In March 2004, it was concluded by the Competitiveness Council that agreement on the revised proposal could not be achieved. A press release was issued outlining translation issues as the main 'sticking point' of the deliberations.[11]

Following the negative outcome of deliberations on the 2004 proposal for a regulation on a Community patent, the Commission decided to consult the public. Over the next two years, an analytical study and consultation were launched in order to discover the opinion of industry and users of the patent system in Europe on the changes that ought to be made.[12] The result of these

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6 For more detail, see: Alfredo Ilardi, *The New European Patent* (Hart Publishing 2015) 21, 22.

7 Council Document (EU) 7159/03 of 7 March 2003 on the Community patent – Common political approach [2003] PI 24.

8 Proposal for a Council Regulation (EU) 15086/03 of 21 November 2003 on the Community patent [2003] LIMITE PI 122.

9 Proposal for a Council Decision (EU) 2003/0324 (CNS) establishing the Community Patent Court and concerning appeals before the Court of First Instance [2003] COM (2003) 828 final; and Proposal for a Council Decision (EU) 2003/0326 (CNS) conferring jurisdiction on the Court of Justice in disputes relating to the Community patent [2003] COM(2003) 827 final.

10 Proposal for a Council Regulation (EU) 7119/04 on the Community patent [2004] LIMITE PI 28.

11 European Commission Press Release (EU) MEMO/04/58 Results of the Competitiveness Council of Ministers [2011] MEMO/04/58.

12 Ilardi, 24.

initiatives was a publication on enhancing the patent system,[13] and shortly thereafter, the publication of a follow up document on how to take the matter further, in order to revitalise the discussion on the creation of a European unitary patent system.[14]

The Commission proposal on enhancing the patent system in Europe highlighted the need for a Community patent and centralised patent judiciary for both Community patents and European (EPC) patents. The proposal also suggested an integrated judiciary, taking features from both the European Patent Litigation Agreement (EPLA)[15] and previous proposals for a Community patent, resulting in a proposed European Community Patent Court (which would later become known as the European and European Union Patent Court). In 2008, a draft agreement and statute on a European Patent Court was published for further debate.[16]

By the end of 2008, negotiations had stagnated. Alternative solutions had been proposed, but consensus was not achieved.[17]

III. THE FIVE-YEAR NEGOTIATION (2009 – 2013)

In 2009, the Lisbon Treaty entered into force,[18] which caused a significant change in EU law. Moreover, the development of a Community patent, now termed EU

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[13] Communication from the Commission to the European Parliament and the Council (EU) on Enhancing the patent system in Europe [2007] COM(2007) 165 final.

[14] Council Document (EU) 11622/07 of 12 July 2007 Towards an Enhanced Patent Litigation System and a Community Patent – How to Take Discussions Further [2007] PI 35.

[15] The Draft Agreement on the establishment of a European patent litigation system 2004 or the European Patent Litigation Agreement (EPLA) was the result of a Working Party on Litigation, established by the Contracting States to the EPC, with the aim of drawing up an optional protocol to the EPC, committing signatories to an integrated judicial system.

[16] Council Document (EU) 9124/08 of 14 May 2008 on a Draft Agreement on the European Union Patent Judiciary [2008] PI 24 COUR 19.

[17] For more detail on this period and the lead up to the unitary patent package see: Hugh Dunlop, *European Unitary Patent and Unified Patent Court* (2nd edition, CIPA 2014); and Alfredo Ilardi, *The New European Patent* (Hart Publishing 2015).

patent (after the entry into force of the Lisbon Treaty), picked up momentum once again, fuelled by a sense of urgency among politicians and EU law makers after over forty years of previous failed attempts. The EU Council requested an opinion from the CJEU on the compatibility of the European and Community/European Union Patent Court (EEUPC) with the EU Treaties and by the end of 2009, had adopted conclusions on the Commission paper in relation to enhancing the patent system in Europe,[19] as well as a general approach to the proposal for a Council Regulation on the EU patent.[20] Following the entry into force of the Lisbon Treaty, the proposed legal basis of the proposed regulation had changed. The EU patent would now have its legal basis in Article 118 of the Treaty on the Functioning of the European Union (TFEU).[21]

Disagreements over the proposed translation requirements remained at the centre of the EU patent debate with the consequence of prolonging the project once again.

In 2010, the European Commission published a proposal for a Council Regulation on the translation arrangements for the proposed EU patent.[22] However, despite all efforts, opposition from certain Member States prevented the unanimous agreement required by Article 118(2) TFEU from being reached.

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18 Treaty of Lisbon Amending the Treaty on European Union and the Treaty Establishing the European Community [2007] C 306/01.

19 Council Conclusions (EU) 17229/09 on the Enhanced Patent System in Europe [2009] PI 141 COUR 87.

20 Council General Approach (EU) 16113/09 ADD 1 on the Proposal for a Council Regulation on the Community patent [2009] PI 122.

21 Article 118 TFEU: (1) 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 measures for the creation of European intellectual property rights to provide uniform protection of intellectual property rights throughout the Union and for the setting up of centralised Union-wide authorisation, coordination and supervision arrangements. (2) The Council, acting in accordance with a special legislative procedure, shall by means of regulations establish language arrangements for the European intellectual property rights. The Council shall act unanimously after consulting the European Parliament.

22 Proposal for a Council Regulation (EU) 2010/0198 (CNS) on the translation arrangements for the European Union patent [2010] COM(2010) 350 final.

Following disagreement in relation to the translation proposal, the Council decided that the EU as a whole could not attain unanimous agreement on the EU patent within a reasonable period. Subsequently, the Commission proposed to launch enhanced cooperation in the area of unitary patent protection,[23] as requested by twelve Member States, and eventually followed by all remaining Member States with the exception of Italy and Spain.[24] The European Parliament granted consent in February, and on 11 March 2011, the Council adopted a decision authorising enhanced cooperation.[25]

Two days earlier, on 8 March 2011, the CJEU had issued its opinion (Opinion 1/09) on the compatibility of the EEUPC with the EU Treaties; it held that the draft agreement was incompatible with EU law.[26] The implementation of a unified litigation system for patents in Europe was consequently prolonged once again.

In April 2011, following the adoption of the decision to authorise enhanced cooperation, the Commission proposed two regulations. The first contained a framework for conferring unitary patent protection, and the second contained translation arrangements, both of which the Council approved in June 2011, after much debate and deliberation by Member States.[27] In a joint statement by Commissioner Michel Barnier and Minister of State Zoltán Cséfalvay at the end of June 2011, it was announced that:

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[23] Proposal for a Council Decision (EU) 2010/0384 (NLE) authorising enhanced cooperation in the area of the creation of unitary patent protection [2010] COM(2010) 790 final.

[24] Enhanced cooperation is a procedure that allows a minimum of nine EU Member States to cooperate in a certain area without the participation of all Member States. The aim of this procedure is to overcome deadlock, to be used only as a last resort.

[25] Council Decision (EU) 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.

[26] Opinion 1/09 ECLI:EU:C:2011:123 (Opinion 1/09). This is discussed further in Chapter Four.

[27] Council General Approach (EU) 11328/11 on the Proposal for a Regulation of the Council and the European Parliament implementing enhanced cooperation in the area of the creation of unitary patent protection and on the Proposal for a Council Regulation implementing enhanced cooperation in the area of unitary patent protection with regard to the applicable translation arrangements [2011] PI 67 CODEC 995.

> [By w]orking closely with the European Parliament, the final objective – the creation of unitary patent protection – is within reach. If we maintain our present momentum and cooperative spirit, a unitary patent in Europe could be a reality within the next two years.[28]

Undetectable in this optimistic statement was the reality of a situation in which Spain and Italy had, only one month previously, contested the legality of the use of the enhanced cooperation procedure, essentially putting the success of the lengthy negotiations at risk. A major political compromise had been achieved; however, Spain and Italy ultimately brought an action against the Council to the CJEU for its unlawful implementation of enhanced cooperation in the area of the creation of unitary patent protection.[29] It was argued that by authorising enhanced cooperation, the Council had circumvented the requirement for unanimity and unduly dismissed their objections regarding translation requirements.

Under the Regulations, for a transitional period, no further translation of unitary patents is required once they have been filed in one of the official languages of the EPO and once their claims have been translated into the two other official languages of the EPO.[30] The official languages of the EPO are English, French and German.[31] This requirement is in line with Article 14(6) EPC. The attack by Spain and Italy on the Regulations of the proposed European patent with unitary effect had a major impact on the perceived legitimacy of this

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[28] European Commission Press Release (EU) MEMO/11/463 Joint Statement of Commissioner Michel Barnier and Minister of State Zoltán Cséfalvay, Chairman of the Competitiveness Council, on unitary patent protection [2011] MEMO/11/463.

[29] Joined Cases C-274 and 295/11 *Kingdom of Spain and Italian Republic v Council of the European Union* [2013] OJ C164/05.

[30] Article 6 Regulation 1260.

[31] Article 14(1) EPC.

legislation. However, the case was dismissed by the CJEU just under two years later.

Meanwhile, the Hungarian Presidency of the EU proposed that negotiations should be resumed on the creation of a unified patent litigation system based on a Commission non-paper, containing potential solutions to the problems identified in Opinion 1/09.[32] In June 2011, a full amendment of the now Unified Patent Court was put forward for discussion and deliberation.[33] In September 2011, the Polish Presidency of the EU submitted an amended text.[34] The text was debated extensively in the following months.

In the face of opposition to the agreement from practitioners and others who believed that the proposals were being rushed through, the text was rejected. Furthermore, a Commission opinion that analysed the compatibility of the draft agreement on the Unified Patent Court with the Union *acquis* was filed.[35] This document examined whether the draft agreement was compatible with the Brussels I Regulation,[36] the Lugano Convention,[37] Rome I,[38] Rome II,[39] Regulation 1206/2001,[40] Regulation 1393/2007[41] and Directive 2004/48/EC.[42] It

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[32] Council Orientation Debate (EU) 10630/11 creating a Unified Patent Litigation System [2011] PI 54 COUR 28.

[33] Presidency Text (EU) 11533/11 on a Draft agreement on a Unified Patent Court and draft Statute [2011] PI 68 COUR 32.

[34] Revised Presidency Text (EU) 13751/11 on a Draft agreement on a Unified Patent Court and draft Statute [2011] PI 108 COUR 48.

[35] Non-paper from the Commission services (EU) 14191/11 on the Compatibility of the draft agreement on the Unified Patent Court with the Union aquis [2011] PI 114 COUR 50.

[36] Regulation (EC) 44/2001 of 22 December 2000 on jurisdiction and the recognition and enforcement of judgements in civil and commercial matters [2001] OJ L 012.

[37] Convention on jurisdiction and the recognition and enforcement of judgments in civil and commercial matters [2007] OJ L 339/3.

[38] Council Regulation (EC) 593/2008 of 17 June 2008 on the law applicable to contractual obligations (Rome I) [2008] OJ L 177/6.

[39] Council Regulation (EC) 864/2007 of 11 July 2007 on the law applicable to non-contractual obligations (Rome II) [2007] OJ L 199/40.

[40] Council Regulation (EC) 1206/2001 of 28 May 2001 on cooperation between the courts of the Member States in the taking of evidence in civil or commercial matters [2011] OJ L 174/1.

[41] Council Regulation (EC) 1393/2007 of 13 November 2007 on the service in the Member States of judicial and extrajudicial documents in civil or commercial matters (service of documents), and repealing Council Regulation (EC) No 1348/2000 [2007] OJ L 324/79.

[42] Council Directive 2004/48/EC of 29 April 2004 on the enforcement of intellectual property rights [2004] OJ L 195/16.

was found that the Brussels I Regulation would need to be clarified for the proposed court to have jurisdiction. In October 2011, the agreement was further examined for compatibility with Opinion 1/09.[43]

Draft after draft of the agreement was released, each one attempting to rectify certain issues with the last. These issues included opposition to the translation arrangements, the role that the CJEU would take in the proposed system, and the location of the divisions of the proposed Unified Patent Court. The draft regulations and the agreement became known as the unitary patent package. In December 2011, the momentum to reach an agreement on the package reached its height, though with negotiations and deliberations happening *in camera*, the public were left unaware as to what was happening.[44] For practitioners and patent applicants alike, who were prevented from commenting because of the secrecy of negotiations, there was a sense that the process had become unduly politicised and undemocratic.[45]

Parliament issued a press release on 1 December 2011[46] with news that political agreement had been reached on the unitary patent package (which took many by surprise) and it would now only require approval by Parliament and Council to take effect.[47] This press release gave the impression to some that there was an unnecessary push behind the implementation of the package.[48] With the meetings still being held *in camera*, information about their progress was difficult

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43 Opinion of the Legal Service (EU) 15856/11 on the compatibility of the draft agreement with the Opinion 1/09 [2011] PI 138 COUR 61.

44 Since this period of time, Ingve Björn Stjerna has published translations of meetings from the European Parliament and its Legal Affairs Committee. See: Ingve Björn Stjerna, *The Parliamentary History of the European 'Unitary Patent': Verbatim protocol of selected meetings in the European Parliament and its Legal Affairs Committee* (Tredition 2015).

45 These views were expressed in: <http://ipkitten.blogspot.co.uk/2011/12/recap-update-unitary-patent-system-and.html> accessed 30 September 2016.

46 European Parliament, 'Done deal on the EU patent?' [2011] <http://www.europarl.europa.eu/pdfs/news/expert/infopress/20111201IPR33061/20111201IPR33061_en.pdf> accessed 30 September 2016.

47 These views were expressed in: <http://ipkitten.blogspot.co.uk/2011/12/recap-update-unitary-patent-system-and.html> accessed 30 September 2016.

48 These views were expressed in: <http://ipkitten.blogspot.co.uk/2011/12/recap-update-unitary-patent-system-and.html> accessed 30 September 2016.

to obtain, and the information that was offered to the public was not always clear. For example, at one point, Mr. Waldemar Pawlack, Deputy Prime Minister and Minister of Economy for Poland, gave contradictory statements to the effect that agreement had been reached, but a number of outstanding issues remained. Mr. Pawlack announced that the Competitiveness Council of the EU had reached an agreement on the substantive issues and that the only outstanding issue was that of two Member States disputing the location of the central division of the proposed Unified Patent Court. According to Poland's European Affairs Minister, Mikolaj Dowgielewicz:

> Essentially the whole package is negotiated, it's final. Nevertheless, due to the resistance to compromise of one or two member states, we will not decide this year on the seat of the court… This is an issue where we have just hit the wall.[49]

It has been suggested by commentators that the resistance of the 'one or two member states' may have been induced by a will to slow down the proceedings, which were thought by some to have been rushed through.[50] However, it is also likely that the potential economic benefit of acquiring the seat of the central division was a significant factor in prolonging the dispute.

Having hit this 'wall' in December 2011, it took twelve months of deliberations to resolve the central division dispute, in addition to some other issues, including the role of the CJEU in the proposed European unitary patent

[49] Competitiveness Council of the EU, Press Conference of 5 December [2011] <http://video.consilium.europa.eu/webcast.aspx?ticket=775-979-10496> accessed 30 September 2016.

[50] This was suggested in: <http://ipkitten.blogspot.co.uk/2011/12/recap-update-unitary-patent-system-and.html> accessed 30 September 2016.

system. Scrutiny from practitioners and major European firms as to the unitary patent package identified further issues and generated further discussion.[51]

According to Henry Carr QC, speaking at the European Scrutiny Committee Meeting in January 2012, there was an undoubted enthusiasm from commerce and the patent profession to implement a unitary patent system, yet, the system proposed at the time was lacking clear support from business, industry and the patent profession.[52]

In the following year, the main debate surrounded the issue of the role of the CJEU. In order to move forward, it was agreed, still behind closed doors, that the contentious provisions of the regulations that would give the CJEU more opportunity to interpret substantive patent law should be removed and placed in the draft unified patent court agreement. This compromise ensured that the substantive law provisions of the package that related to the rights conferred by the unitary patent were moved from the EU Regulation, in which they would fall within the jurisdiction of the CJEU, to the non-EU draft agreement, in which they would be outside that jurisdiction. It seems that agreement, or more so a compromise, was finally achieved. While this compromise enabled the package to be concluded, it also caused further concerns amongst commentators who again believed that the proposals had been rushed through without proper evaluation of their implications.[53]

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[51] Ericsson, Nokia and BAE all wrote to the Parliament to urge them to reject the text as it would do more harm than good.

[52] A recording of this hearing is available at: <http://www.parliamentlive.tv/Event/Index/27dd7c92-d56f-4b9a-8d58-affec8470d5b> accessed 30 September 2016.

[53] This opinion and other concerns have been expressed by many online blogs such as (but not limited to) IPKat, Managing IP, and EPLAW Blog, as well as the Max Planck Institute in their report: Reto M. Hilty, Thomas Jaeger, Matthias Lamping and Hanns Ullrich, 'The Unitary Patent Package: Twelve Reasons for Concern' [2012] Max Planck Institute for Intellectual Property & Competition Law Research Paper No. 12-12 <http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2169254> accessed 30 September 2016.

As mentioned, coinciding with this debate was the issue of the location of the central division of the proposed Unified Patent Court. A dispute arose between France, Germany and the UK as to which country the central division should be situated in. After strong bids and lengthy dialogues from the parties involved, including arguments that if the division were to be in Germany it would cause great harm to the UK patent practice of hearing validity and infringement claims together, it was ultimately decided that the central division of the proposed Unified Patent Court would be in France, supplemented by branches in both the Germany and the UK. It was concluded that cases regarding human necessities, chemistry and metallurgy would be brought before the section of the central division in London; cases involving mechanical engineering, lighting, heating, weapons and blasting would be brought before the section of the central division in Munich; and the remaining technologies would be brought before the seat of the central division in Paris.[54] Although met with disappointment from within the UK, there appeared nonetheless to be an overall acceptance of the compromise on the location of the central division.[55]

With the final issue resolved, in December 2012 agreement was achieved and the unitary patent package was finally approved. The regulations on the creation of unitary patent protection[56] and the applicable translation arrangements[57] were adopted.[58] In February 2013, the text of the Agreement on a

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54 Agreement 2013/C on a Unified Patent Court [2013] OJ L 175/01, Annex II.

55 Michael Cross, "City: Three Way Split for European Patent Court" [2012] 27 LS Gaz 6(3).

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

57 Council Regulation (EU) 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] OJ L 361/89.

58 The Regulations were adopted by: Austria, Belgium, Bulgaria, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Ireland, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Poland, Portugal, Romania, Slovakia, Slovenia, Sweden and United Kingdom. This includes all EU Member States with the exception of: Spain, Croatia, and Italy. Italy has since adopted the Regulations.

Unified Patent Court[59] was finalised; twenty-five out of twenty-seven (at the time) EU Member States' signatures were collected;[60] and the process of ratification and implementation began, which is yet to be completed.

IV. THE UNITARY PATENT PACKAGE

The unitary patent package is a legislative package containing two EU regulations and an international agreement: EU Regulation 1257/2012 implementing enhanced cooperation in the area of unitary patent protection (Regulation 1257), EU Regulation 1260/2012 implementing enhanced cooperation in the area of the creation of unitary patent protection with regard to the applicable translation arrangements (Regulation 1260), and Agreement 2013/C on a Unified Patent Court (UPCA).

(A) REGULATION 1257

Regulation 1257 establishes unitary patent protection for all participating Member States of the EU on the basis of Article 118(1) of the TFEU and applies Council Decision 2011/167/EU, authorising enhanced cooperation.

According to the Preamble, the Regulation constitutes a special agreement within the meaning of Article 142 EPC,[61] a regional patent treaty within the

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[59] Agreement 2013/C on a Unified Patent Court [2013] OJ L 175/01.

[60] The Agreement was signed by: Austria, Belgium, Bulgaria, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Portugal, Romania, Slovakia, Slovenia, Sweden, and United Kingdom. This includes all EU Member States with the exception of Croatia, Poland, and Spain.

[61] Article 142 EPC: Unitary patents – (1) Any group of Contracting States, which has provided by a special agreement that a European patent granted for those States has a unitary character throughout their territories, may provide that a European patent may only be granted jointly in respect of all those States. (2) Where any group of Contracting States has availed itself of the authorisation given in paragraph 1, the provisions of this Part shall apply.

meaning of Article 45 of the Patent Cooperation Treaty 1970 (PCT),[62] and a special agreement within in the meaning of Article 19 of the Convention for the Protection of Industrial Property 1883 (Paris Convention),[63] and is therefore in line with the aforementioned Treaties.

It outlines the main features of the new patent, including: its unitary effect; the uniform nature of the protection conferred; the unitary patent as an object of property; and certain administrative aspects of the system, such as those relating to fees. The substantive features of the European patent with unitary effect have been agreed in that patentability will be governed by the rules of the EPC and Regulation 1257, and the post-grant life of the unitary patent will be predominantly governed by the UPCA.[64]

Article 3 Regulation 1257 establishes the European patent with unitary effect. It states that a European patent, having the same claims in respect of all participating Member States will benefit from unitary effect provided it has been registered in the Register for unitary patent protection on request of the European patent holder.[65] The European patent with unitary effect has unitary character, provides uniform protection, and has equal effect in all participating Member States.[66] It can only be limited, transferred or revoked, or lapse, in respect of all

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[62] Article 45 PCT: Regional Patent Treaties – (1) Any treaty providing for the grant of regional patents ('regional patent treaty'), and giving to all persons who, according to Article 9, are entitled to file international applications the right to file applications for such patents, may provide that international applications designating or electing a State party to both regional patent treaty and the present Treaty may be filed as application for such patents. (2) The national law of the said designated or elected State may provide that any designation of election of such State in the international application shall have the effect of an indication of the wish to obtain a regional patent under the regional patent treaty.

[63] Article 19 Paris Convention: Special Agreements – It is understood that the countries of the Union reserve the right to make separately between themselves special agreements for the protection of industrial property, in so far as these agreements do not contravene the provisions of this Convention.

[64] Thomas Jaeger, 'Is it Back to Square One? An Assessment of the Latest Proposals for a Patent and Court for the Internal Market and Possible Alternatives' (2012) 43(3) IIC 286, 287.

[65] Article 3(1) Regulation 1257.

[66] Article 3(2) Regulation 1257.

participating Member States but can be licensed in respect of the whole or part of the same territory.

Uniform protection is guaranteed by Article 5 Regulation 1257, which states that the European patent with unitary effect confers a right to prevent third parties from committing acts against which that patent provides protection throughout participating Member States.[67] The article also explicitly states that the scope of the right and its limitations will be uniform in all participating Member States.[68] It states that those acts against which the patent provides protection are defined by the law applied to European patents with unitary effect in the participating Member States whose national law is applicable to the European patent with unitary effect as an object of property.[69] Prohibited acts are therefore not defined directly in Regulation 1257.

The European patent with unitary effect as an object of property is treated as a national patent of the participating Member State in which that patent has unitary effect and where the applicant has either his residence, principal place of business, or place of business on the date of filing of the application for the European patent.[70] If the applicant had no residence, principal place of business, or place of business in a participating Member State at that time, the European patent with unitary effect is treated as a national patent of the State in which the EPO has its headquarters, namely, in Germany.[71]

Article 9 Regulation 1257 sets out the administrative tasks in the framework of the EPO applicable to European patents with unitary effect. Under Article 143 EPC, a group of Contracting States may give additional tasks to the EPO and special departments may be set up within the EPO to carry out these

[67] Article 5(1) Regulation 1257.
[68] Article 5(2) Regulation 1257.
[69] Article 5(3) Regulation 1257.
[70] Article 7(1) Regulation 1257.
[71] Article 7(3) Regulation 1257.

additional tasks. Regulation 1257 gives the EPO numerous tasks relating to the administration of the European patent with unitary effect. These tasks include: administering requests for unitary effect; managing the Register for unitary patent protection; collecting renewal fees; administering compensation schemes; and receiving and registering statements on licensing. The doctrine of exhaustion applies to European patents with unitary effect,[72] and licenses of right are available.[73]

The procedure involved in applying for a European patent with unitary effect under Regulation 1257 is quite simple. A patent applicant must follow the procedure outlined in Chapter One for obtaining a European patent under the EPC, including by filing an application with the EPO. The EPO will then conduct the necessary search and examination and issue a decision. If successful, the patentee has one month after grant from which they can submit a request for unitary effect. If the formal requirements for registration are met a European patent with unitary effect must be registered by the EPO.

(B) REGULATION 1260

Regulation 1260 establishes the translation arrangements for the proposed European unitary patent system on the basis of Article 118(2) TFEU and applies Council Decision 2011/167/EU, authorising enhanced cooperation.

According to the Preamble, the translation arrangements for European patents with unitary effect ought to be simple and cost-effective; they should ensure legal certainty and stimulate innovation, as well as making access to the European patent with unitary effect and the patent system as a whole, easier, less

[72] Article 6 Regulation 1257.
[73] Article 8 Regulation 1257.

costly and legally secure.[74] Reaching a compromise on translation arrangements was the most difficult aspect of the negotiations concerning a European unitary patent system. The aim of the compromise reached in Regulation 1260 is to reduce the number of translations that are necessary by means of a uniform and simple translation regime for European patents with unitary effect.

The translation regime in Regulation 1260 is modelled on Article 14 EPC.[75] According to Article 3 Regulation 1260, where the specification of a European patent application has been published in accordance with Article 14(6) EPC, no further translations will be required.[76] There is however an exception in the case of a dispute – at the request of an alleged infringer, the patentee must provide a full translation of the European patent with unitary effect into either the language of the participating Member State in which the alleged infringement took place, or the Member state in which the alleged infringer is domiciled.[77]

When submitting an application for a European patent with unitary effect, as mentioned, the applicant will follow the same procedure for a European patent. The translation arrangements are the same. Precisely, specifications of European patents must be published in the language of the proceedings and include a translation of the claims into the two other official languages of the EPO (English, French and German). The language of proceedings is the official language of the EPO in which the application is filed or into which it is translated.[78]

According to Regulation 1260, in accordance with Article 14 EPC, once the patent specification has been published in the language of proceedings, only the claims must be translated into the two other official languages of the EPO. For

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74 Regulation 1260, Preamble (4) and (5).
75 Article 14(6) EPC: Specifications of European patents shall be published in the language of the proceedings and shall include a translation of the claims in the other two official languages of the European Patent Office.
76 Article 3(1) Regulation 1260.
77 Article 4 Regulation 1260.
78 Article 14(3) EPC.

example, if a patent application is submitted in English, the claims must be translated into French and German. However, if a patent application is submitted in Greek, the specification must be translated into either English, French or German as the language of proceedings, and the claims must be translated into the remaining languages for the purpose of Article 14(6) EPC; the purpose being to avoid the costs of translation into all national languages in which the patent will take effect.

During the transitional period, if the language of proceedings is French or German, a full translation of the specification into English is required; or where the language of proceedings is English, a full translation of the specification into any other official language of the Union is required.[79] The transitional period ends once high quality machine translations into all official languages of the EU are available, and no longer than twelve years from the date of application of the Regulation.[80]

Regulation 1260 also introduces a compensation scheme for small and medium-sized enterprises, natural persons, non-profit organisations, universities, and public research organisations, whose residence or principal place of business is within a participating Member State. Since an application can be submitted in any language under Article 14(2) EPC, for patent applicants filing applications at the EPO in an official language of the Union that is not an official language of the EPO, reimbursement of all translation costs, up to a ceiling (a lump sum of €500), will be available.[81] Concerning damages, if the alleged infringer is one of the aforementioned groups/persons, the court shall take into account whether they acted without knowing or without reasonable grounds for knowing, that they were

[79] Article 6 Regulation 1260.
[80] Regulation 1260, Preamble (13).
[81] Article 5(2) Regulation 1260.

infringing the European patent with unitary effect having been provided with a translation.[82]

If all translation requirements are fulfilled (as well as the substantive requirements of patentability and the formal requirements of Regulation 1257) the European patent with unitary effect shall be granted. The patentee will thus benefit from a patent with unitary effect conferring uniform protection throughout the territories of the participating EU Member States, without the onerous translation requirements of traditional patent systems.

(C) THE AGREEMENT ON A UNIFIED PATENT COURT 2013

The Agreement on a Unified Patent Court 2013 (UPCA) establishes a Unified Patent Court (UPC): a specialised patent court common to the Member States of the EU, for the settlement of disputes relating to European patents with unitary effect, European patents and applications, and supplementary protection certificates (SPCs).

The UPCA is a supranational agreement. Its purpose is to remedy the significant variations between national court systems that are detrimental to innovation, by setting up the UPC, which has been devised to ensure cross-border, expeditious, and high quality decisions that strike a fair balance between the interests of right holders and other parties.[83] It contains provisions on substantive patent law, defining the rights of the proprietor of a European patent with unitary effect or European patent, to prevent the direct and indirect use of the invention.[84] This includes making, offering, placing on the market or using a product which is the subject matter of the patent, or importing or storing the product for those

[82] Article 4(4) Regulation 1260.
[83] UPCA, Preamble.
[84] Article 25 and 26 UPCA.

purposes. It also includes using a process that is the subject matter of a patent and offering, placing on the market, using or importing or storing for those purposes, a product obtained directly by a patented process. The rights conferred by the UPCA also extend to preventing any third party who does not have the patentee's consent from supplying or offering to supply any person, other than those entitled, with means relating to an essential element of that invention, for putting it into effect, when the third party knows, or should have known, that those means are suitable and intended for putting that invention into effect.[85] They are subject to certain limitations,[86] including limitations covering the use of an invention for private and non-commercial purposes, and for experimental purposes relating to the subject matter of the invention. Rights are granted based on prior use.[87] Article 28 UPCA states that:

> Any person, who, if a national patent had been granted in respect of an invention, would have had, in a Contracting Member State, a right based on prior use of that invention or a right of personal possession of that inventions, shall enjoy, in that Contracting Member State, the same rights in respect of a patent for the same inventions.

The doctrine of exhaustion also applies.[88]

Regarding applicable law, the UPC will be required to base its decisions on Union law, the UCPA (including its Statute[89] and Rules of Procedure[90]), the EPC, and other international agreements applicable to patents that are binding on

[85] Article 25 and 26 UPCA.
[86] Article 27 UPCA.
[87] Article 28 UPCA.
[88] Article 29 UPCA.
[89] Agreement 2013/C on a Unified Patent Court [2013] OJ L 175/01, Annex I, Statute of the Unified Patent Court.
[90] Preliminary set of provisions for the Rules of Procedure ('Rules') of the Unified Patent Court, 18th draft of 19 October 2015.

all the Contracting Member States.[91] The Court can also apply the national law of a Member State, for example, when dealing with rights of prior use or the unitary patent as an object of property.[92] EU law shall have primacy[93] and the UPC must cooperate with the CJEU in properly interpreting Union law by relying on its jurisprudence and by requesting preliminary rulings in accordance with Article 267 TFEU.[94]

According to Part I, Chapter VI UCPA, jurisdiction is established in accordance with Regulation 1215/2012[95] or the Lugano Convention,[96] and the UPC has extensive competence in respect of actions in relation to patents including actual or threatened infringements, declarations of non-infringement, provisional and protective measures, revocation of patents and declarations of invalidity, as well as decisions of the EPO in carrying out the tasks assigned to it by Article 9 Regulation 1257.[97]

The UPCA also contains provisions on the structure and procedure of the UPC, the judges of the court, as well as financial and transitional provisions. The Statute of the Unified Patent Court provides more detailed institutional and financial arrangements for the UPC. Finally, the Rules of Procedure, currently in 18th draft, outline all procedural aspects of the UPC.

The UPC will comprise of a Court of First Instance, a Court of Appeal and a Registry.[98] The Court of First Instance will have a central division, as well as local and regional divisions.[99] As noted previously, the central division will be in

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91 Article 24(1) UPCA.
92 Article 24(2) UPCA.
93 Article 20 UPCA.
94 Article 21 UPCA.
95 Council Regulation (EU) 1215/2012 of 12 December 2012 on jurisdiction and the recognition and enforcement of judgments in civil and commercial matters [2012] OJ L 351/1.
96 Convention on jurisdiction and the recognition and enforcement of judgments in civil and commercial matters [2007] OJ L 339/3 (Lugano Convention).
97 Article 31 and 32 UPCA.
98 Article 6(1) UPCA.
99 Article 7 UPCA.

Paris, with branches in London and Munich. It shall sit in a composition of two legally qualified judges who are nationals of different Contracting Member States and one technically qualified judge allocated from the Pool of Judges.[100] Local divisions can be established in any Contracting Member State upon request. Panels of local divisions will sit in a composition of one legally qualified judge who is a national of the Contracting Member State hosting the division, and two legally qualified judges who are not nationals of the Contracting Member State concerned.[101] If a local division hears more than fifty cases per year, the panel will consist of two legally qualified judges who are nationals of the Contracting State, and one legally qualified judge who is not.[102] Regional divisions shall be set up for two or more Contracting Member States, designating the seat of the division concerned. The composition of the panel will include two legally qualified judges chosen from a list of regional judges, who shall be nationals of the Contracting Member States concerned and one legally qualified judge who is not a national of the Contracting Member States concerned.[103] All local and regional panels have the option to request a technically qualified judge with qualifications and experience in the field of technology concerned, allocated from the Pool of Judges.[104]

The Court of Appeal will be situated in Luxembourg and shall sit in a multinational composition of five judges – three legally qualified judges who are nationals of different Contracting Member States, and two technically qualified judges.[105]

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[100] Article 8(6) UPCA.
[101] Article 8(2) UPCA.
[102] Article 8(3) UPCA.
[103] Article 8(4) UPCA.
[104] Article 8(5) UPCA.
[105] Article 9 UPCA.

The judges of the court are subject to eligibility criteria prior to appointment.[106] They must ensure the highest standards of competence and have proven experience in patent litigation. Furthermore, evidence of qualifications required for appointment to judicial offices in a Contracting Member State will be required for legally qualified judges, and a university degree and proven experience in a field of technology is required for technically qualified judges. A training framework has been established in order to improve and increase available patent litigation expertise and to ensure a broad geographic distribution of such specific knowledge and expertise.[107] Regular meetings will also be organised between all judges of the UPC to discuss developments in patent law and to ensure consistency in judgments.[108] Judges will be allocated to the appropriate division from the Pool of Judges based on their legal or technical experience, linguistic skills, and relevant experience.

The language of proceedings before the Court of First Instance of the UPC will be the official language or one of the official languages of the Contracting Member State/States hosting the division concerned.[109] However, parties can designate an official language of the EPO as the language of proceedings, or agree to use the language in which the patent was granted. At the central division, the language of proceedings will be that in which the patent concerned was granted.

Before the Court of Appeal of the UPC, the language of proceedings shall be the language used before the Court of First Instance.[110] Parties may however agree to use the language in which the patent was granted and, in exceptional cases, the Court of Appeal may decide on another official language of a

[106] Chapter III UPCA.
[107] Article 19 UPCA.
[108] Article 19(3) UPCA.
[109] Article 49 UPCA.
[110] Article 50 UPCA.

Contracting Member State as the language of proceedings, subject to agreement by the parties.

Interpretation facilities are available to assist the parties concerned, and translations of relevant documents is possible in certain circumstances if the language of proceedings at the central division is a language that is not an official language of the Member State were the defendant has its residence, principal place of business or, place of business, and the defendant does not have proper knowledge of the language of proceedings.[111] Interpretation can also be requested in local and regional divisions, and before the Court of Appeal.[112]

To enter into force, the UPCA is subject to ratification by thirteen participating Member States of the EU, including France, Germany and the United Kingdom.[113] To date, eleven Member States, including France, have ratified the UPCA, leaving its entry into force dependent on the ratification of Germany and the UK.

The UPC has exclusive jurisdiction for the Contracting Member States of the UPCA. Therefore, if a European patent with unitary effect, or a European patent (unless opted out[114]), is subject to an action outlined in Article 32 UPCA, the case will be taken before the UPC.[115]

If the case relates to an actual or threatened infringement of a patent or SPC, or to the use of the invention prior to the granting of the patent, it will be brought before the local or regional division hosted by the Contracting Member State where the actual or threatened infringement occurred or may occur, or, to the local or regional division hosted by the Contracting Member State where the

[111] Article 51 UPCA.
[112] Article 51(2) UPCA.
[113] Article 84 UPCA.
[114] Article 83 UPCA outlines that unless an action has been brought before either the UPC or a relevant national court, the patentee is given the option to opt out of the jurisdiction of the UPC.
[115] A patent mediation and arbitration centre is available under Article 35 UPCA at centres in Ljubljana and Lisbon.

defendant has its residence, or principal place of business, or in the absence of either, its place of business.[116] Requests for revocation or invalidation of a patent or SPC will be brought before the central division and actions relating to compensation for licences of right[117] will be taken at the local or regional division hosted by the Contracting Member State where the defendant has its residence, or principal place of business, or in the absence of either, its place of business. If the defendant has none of the above, actions will be taken where the actual or threatened infringement occurred or may occur. If the Contracting Member State concerned does not have a local division, or does not participate in a regional division, the case will be brought to the central division.

If an action described above is pending before a division of the Court of First Instance of the UPC, any other action between the same parties on the same patent may not be brought before any other division.[118] If an action in relation to an actual or threatened infringement is pending before a regional division and the infringement has occurred in the territories of three or more regional divisions, the case will, at the request of the defendant, be referred to the central division. If an action between the same parties on the same patent is brought before several divisions, the division first seized shall be competent for the entire case.

If a counterclaim for revocation is brought in the case of an action for infringement, the local or regional division can decide to proceed with the entire case, refer the counterclaim to the central division and suspend or proceed with the infringement action, or refer the entire case to the central division.[119] Parties can however agree to bring most actions before the division of their choice,

[116] Article 33(1) UPCA.
[117] Article 8 Regulation 1257.
[118] Article 33(2) UPCA.
[119] Article 33(3) UPCA.

including the central division[120] and during the transitional period of the UPCA, actions for infringement or revocation may still be brought before national courts or other competent authorities.[121]

Actions concerning decisions of the EPO in carrying out the tasks referred to in Regulation 1257 shall be taken to the central division.[122]

Once the division of the court appropriate to hear a case has been established, a decision will be made on the language of the proceedings as outlined above. Proceedings will then commence and ultimately, the Court will make a decision that will be enforceable throughout the territories of all Contracting Member States, just as a decision of a national court in the territory of the UCPA state where the decision is to be enforced.[123]

V. CONCLUSION

The unitary patent package represents an important achievement of European patent law reformers. After over forty years of negotiations and many false starts, a European unitary patent and patent system may finally be established, conferring significant benefits on patentees. Above all, these include a new title of patent for the EU. This patent, unlike the patents currently available in Europe, will confer unitary and uniform protection throughout all Contracting Member States by means of a simplified process. Validation in each Member State will no longer be required. The inconsistent translation requirements of current systems will no longer be an issue, which will have the effect of reducing costs and

[120] Article 33(7) UPCA.
[121] Article 83 UPCA.
[122] Article 33(9) UPCA.
[123] The court also has the power under Part III, Chapter IV UPCA to: appoint experts during proceedings, protect confidential information, make orders to produce evidence, preserve evidence, inspect premises, make freezing orders, grant provisional and protective measures, permanent injunctions, corrective measures, make decisions on validity, order the communication of information, award damages and award legal costs.

administrative burdens. So too from the public's perspective, by making access to the patent system easier, less costly and more legally secure, unitary patent protection is expected to promote science and technology, in addition to stimulating research and investment in innovation, and boosting business and growth in the EU.

The unitary patent package will also introduce a new patent court. For the first time in Europe, following the introduction of the UPC, specialised patent law judgments will be binding and applicable to European patents with unitary effect across the territories of participating Member States in the EU. A mechanism for the cross-border enforcement of patents with regard to infringement and validity will exist, reducing the fragmentation of the existing domestic litigation systems and the associated risks of parallel litigation and divergent interpretations of the same principles of substantive patent law by different domestic courts. As such, the UPC is expected to contribute significantly to the harmonisation and indeed, the unification of substantive European patent law, and to promote European economic and legal integration more generally. As a specialised patent court, it is also expected to ensure expeditious and high quality decisions for patent law across Europe.

The unitary patent package has been further applauded by some commentators for its specific provisions for small and medium-sized enterprises, natural persons, non-profit organisations, universities, and public research organisations.[124] Introducing a compensation scheme for translations in the application process, targeted support measures for court fees, and access to

[124] As seen in: Winfried Tilmann, 'Possible impact of the Unitary Patent Regulation and the Unified Patent Court Agreement on Poland' (2015) 37(9) EIPR 545. A response to a report conducted for Poland, which argued that the UPP would have a negative impact on small and medium sized enterprises. However, Tilmann's comments on small and medium sized enterprises are more general.

translations in the event of disputes may increase the ability of these parties to use the patent system.

Despite these expected benefits, there has also been considerable criticism of the unitary patent package, which will now be considered.

CHAPTER THREE: CRITICISMS OF THE PROPOSED EUROPEAN UNITARY PATENT SYSTEM – THE REGULATIONS

I. INTRODUCTION

As we have seen, the unitary patent package (UPP) comprises three separate instruments: first, EU Regulation 1257/2012 implementing enhanced cooperation in the area of the creation of unitary patent protection (Regulation 1257);[1] second, EU Regulation 1260/2012 implementing enhanced cooperation in the area of the creation of unitary patent protection with regard to the applicable translation arrangements (Regulation 1260);[2] and finally the non-EU Agreement on a Unified Patent Court 2013 (UPCA).[3] This chapter will focus on the Regulations.

As previously mentioned, once they become applicable, these two EU Regulations will introduce a European patent with unitary effect. Clearly the UPP represents a significant development, realising to some extent at least the vision of Senator Henri Longchambon from more than fifty years ago. Despite this, it has been widely criticised for a variety of reasons – including legal, institutional and economical, amongst others. Given that the UPP has the opportunity to effect the biggest change in the European patent system for decades, these criticisms must be carefully examined and scrutinised.[4] Doing so reveals a common theme among critics of the UPP: that instead of unifying the European patent system, the package will serve to further fragment it. This chapter will investigate the criticisms of the Regulations.

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

2 Council Regulation (EU) 1260/2012 of the European Parliament and of the Council 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] OJ L 361/89.

3 Agreement 2013/C on a Unified Patent Court [2013] OJ L 175/01.

4 David Kitchin, 'Introductory Remarks: A Judicial Perspective' in Justine Pila and Christopher Wadlow (eds), *The Unitary EU Patent System* (Hart Publishing 2014) 4.

II. BACKGROUND

The Regulations have their legal basis in Article 118 TFEU, which states:

> (1) 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 measures for the creation of European intellectual property rights to provide uniform protection of intellectual property rights throughout the Union and for the setting up of centralised Union-wide authorisation, coordination and supervision arrangements.
>
> (2) The Council, acting in accordance with a special legislative procedure, shall by means of regulations establish language arrangements for the European intellectual property rights. The Council shall act unanimously after consulting the European Parliament.

However, it has been argued that the Regulations contain no substantive patent law and thus do not create uniform rights to provide protection throughout the Union, as mandated by Article 118 TFEU.[5] These concerns exist partly because of a decision taken by the European Council and Parliament.

Prior to the finalisation of the Regulations, the unitary patent regulation was to have included substantive patent law provisions on prohibiting use,

[5] Thomas Jaeger, 'What's in the Unitary Patent Package?' [2014] Max Planck Institute for Intellectual Property & Competition Law Research Paper No. 14 – 08 <http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2435125> accessed 30 September 2016, 7.

injunctions following a finding of validity and infringement, and provisions on limitations (Articles 6-8[6]). It was argued, however, that if the Regulations were to contain these provisions, the Court of Justice of the European Union (CJEU) would play too significant a role in substantive patent law; a compromise was reached, resulting in the deletion of Articles 6-8 from Regulation 1257 and their transferral into the UPCA.[7] This debate and decision caused much of the initial controversy surrounding Regulation 1257 and has created a degree of legal uncertainty regarding the legal basis of the UPP and the role of the CJEU in the future European patent system. Regarding the legal nature of the European patent with unitary effect – on the one hand the European patent with unitary effect is a creation of EU law by reason of its explicit legal basis in Article 118 TFEU; however, on the other hand, it may be said that the effect of transferring Articles 6-8 into the UPCA was to found the European patent with unitary effect in an international agreement rather than in EU legislation, thus excluding the CJEU from the interpretation of the substantive patent law. There are two inter-related aspects that need to be considered: the nature of the right contained in Regulation 1257; and the role of the EU and its institutions in the future European patent system.

This was not the only issue regarding the finalisation of the Regulations. The Regulations have been implemented by the EU on the basis of Council Decision 2011/167/EU,[8] authorising enhanced cooperation between participating Member States in the area of the creation of unitary patent protection. This

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6 Based on Articles 29-31 Convention for the European Patent for the Common Market (15 December 1975) (Community Patent Convention) (CPC) or Articles 25-27 Council Agreement 89/695/EEC of 15 December 1989 relating to Community Patents [1989] OJ L 401/1 (Community Patent Agreement).

7 European Parliament, 'Parliament approves EU unitary patent rules' [2012] <http://www.europarl.europa.eu/news/en/news-room/20121210IPR04506/parliament-approves-eu-unitary-patent-rules> accessed 30 September 2016.

8 Council Decision (EU) 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.

procedure was deemed to be necessary due to objections from Spain and Italy to the language regime of the Regulations. This objection, that has foundations in language pride and which is also highly political, spurred Spain and Italy to reject the adoption of the draft EU Regulations.[9] The Council's decision paved the way for the creation of the European patent with unitary effect but arriving at that point involved travelling down a long and winding road.[10]

Indeed, the Regulations were implemented; however, owing to this background and some of the provisions of the Regulations, the system that is to be introduced has been criticised extensively.

III. CRITICISMS OF THE USE OF THE ENHANCED COOPERATION PROCEDURE

As mentioned, enhanced cooperation was authorised by the Council.[11] As a result, twenty-five out of the then twenty-seven Member States participated in the creation of unitary patent protection.[12] Enhanced cooperation allows at least nine Member States to come together in specific policy areas to further the objectives of the EU, namely, its integration process.[13] Article 20 of the Treaty on the European Union (TEU) states that:

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9 Italy eventually accepted the Regulations and joined the enhanced cooperation process.

10 Ceyhun Necati Pehlivan, 'The creation of a single European patent system: from dream to (almost) reality' (2012) 34(7) EIPR 453, 454; and Jan Brinkhof and Ansgar Ohly, 'Towards a Unified Patent Court in Europe' in Ansgar Ohly and Justine Pila (eds), *The Europeanization of Intellectual Property Law: Towards a European Legal Methodology* (OUP 2013) 199.

11 Council Decision (EU) 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.

12 Croatia had not yet joined the European Union.

13 Enhanced Cooperation is enshrined in Article 20 TEU & Articles 326-334 Treaty on the Functioning of the European Union (TFEU). For more on enhanced cooperation, see: Matthias Lamping, 'Enhanced Cooperation – a proper approach to market integration in the field of unitary patent protection?' (2011) 42(8) IIC 879; and Hanns Ullrich, 'Harmonizing Patent Law: The Untamable Union Patent' [2012] Max Planck Institute for Intellectual Property and Competition Law Research Paper No. 12-03 <http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2027920> accessed 30 September 2016.

(1) Member States which wish to establish enhanced cooperation between themselves within the framework of the Union's non-exclusive competences may make use of its institutions and exercise those competences by applying the relevant provisions of the Treaties, subject to the limits and in accordance with the detailed arrangements laid down in this Article and in Articles 326 to 334 of the Treaty on the Functioning of the European Union.

Enhanced cooperation shall aim to further the objectives of the Union, protect its interests and reinforce its integration process. Such cooperation shall be open at any time to all Member States, in accordance with Article 328 of the Treaty on the Functioning of the European Union.

(2) The decision authorising enhanced cooperation shall be adopted by the Council as a last resort, when it has established that the objectives of such cooperation cannot be attained within a reasonable period by the Union as a whole.[14]

As seen in Chapter One, one of the most controversial and significant features of the current European patent system is that of cost – cost largely owing to the requirement of translations to be filed at national level. According to the European Commission, the approximate cost of a European patent with designations in twenty-five Member States is €32,119; broken down, the cost of translations is

[14] Article 20(2) TEU.

€20,145.[15] A central aim of the UPP is to reduce this cost by granting patents that do not need to be translated for all participating Member States.

Regulation 1260 will implement a new language regime. Rather than having to supply translations for all participating Member States, patent specifications need only be in one of the languages of the EPO – English, French or German – and claims must only be filed in the two official languages of the EPO other than the language of proceedings.[16] However, during a transitional period of at least seven years, if the language of proceedings is French or German then a full translation of the specification (not only the claims) is required in English.[17] Furthermore, if the language of proceedings is English, a full translation of the specification is required in any other official language of the Union.[18]

It was this language regime that Spain and Italy rejected.[19] This was the reason for their non-participation and, evidently, the grounds for the use of the enhanced cooperation procedure.

However, Spain and Italy did not only disagree with the language regime, they went so far as to bring an action to the CJEU challenging the legality of the subsequent use of the enhanced cooperation procedure.[20] Following the conclusion of that case, Spain brought two further actions to the CJEU, also

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15 As seen from the figures compiled by the European Commission, available at: <http://ec.europa.eu/internal_market/indprop/docs/patent/faqs/cost-comparison_en.pdf> accessed 30 September 2016.

16 Article 3 Regulation 1260: where the specification of a European patent, which benefits from unitary effect has been published in accordance with Article 14(6) of the EPC, no further translations shall be required. Article 14(6) European Patent Convention (EPC): Specifications of European patents shall be published in the language of the proceedings [the language used to file the patent – English, French or German] and shall include a translation of the claims in the other two official languages of the European Patent Office.

17 Article 6(1)(a) Regulation 1260.

18 Article 6(1)(b) Regulation 1260.

19 Spain and Italy argued that the translation arrangements should reflect the official languages of the European Union Intellectual Property Office (EUIPO) - English, French, German, Italian and Spanish.

20 Joined Cases C-274 and 295/11 *Kingdom of Spain and Italian Republic v Council of the European Union* ECLI:EU:C:2013:240.

challenging the legality of Regulations 1257 and 1260.[21] Although all these cases were dismissed, and the pleas against the use of the enhanced cooperation procedure were unsuccessful, the issues that were raised persist in debates on the future and potential downfall[22] of the implementation of the proposed European unitary patent system and therefore require more detailed examination.[23]

(A) ENHANCED COOPERATION EXCLUDES NON-PARTICIPATING MEMBER STATES

The main argument against the use of the enhanced cooperation procedure was that it was being used to exclude Spain and Italy. It was argued that the true object of the Council's decision was not to achieve integration, but to exclude Spain and Italy from the negotiations surrounding the issue of the language arrangements for the European patent with unitary effect and, furthermore, to deprive those Member States of their right to oppose language arrangements they cannot approve.[24] Spain and Italy argued that a distortion of competition and discrimination between participating and non-participating Member States in terms of trade and language would result from the enhanced cooperation procedure.

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[21] Case C-146/13 *Kingdom of Spain v European Parliament and the Council of the European Union* ECLI:EU:C:2015:298 and Case C-147/13 *Kingdom of Spain v Council of the European Union* ECLI:EU:C:2015:299.

[22] Reto Hilty, Thomas Jaeger, Matthias Lamping and Hanns Ullrich, 'The Unitary Patent Package: Twelve Reasons for Concern' [2012] Max Planck Institute for Intellectual Property & Competition Law Research Paper No. 12-12 <http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2169254> accessed 30 September 2016.

[23] For a detailed analysis of the use of enhanced cooperation and the opinion of AG Bot, see: Federico Fabbrini, 'Enhanced Cooperation under Scrutiny: Revisiting the Law and Practice of Multi-Speed Integration in Light of the First Involvement of the EU Judiciary' (2013) 40(3) Legal Issues of Economic Integration 197.

[24] Joined Cases C-274 and 295/11 *Kingdom of Spain and Italian Republic v Council of the European Union* ECLI:EU:C:2013:240, para 27.

Enhanced cooperation generates an allowable differentiation in pursuing European integration. However, according to Matthias Lamping:

> [D]ifferentiation must be temporary and should reflect objective socio-economic differences rather than subjective political preferences.[25]

Indeed, certain policies can go ahead without the active participation of all Member States.[26] However, these policies cannot be directed against those who are not participating.[27] This was argued to be the case in the situation at hand. Under Article 118(2) TFEU, unanimity is required when deciding on a language arrangement for the creation of European intellectual property rights. Spain and Italy argued that the use of enhanced cooperation was to circumvent this requirement of unanimity, to their exclusion.

Language regimes have consistently been a significant reason for the downfall of previous attempts at unitary patent protection in Europe. Unanimous decisions seem impossible in this area and so enhanced cooperation may have been the only way to introduce a system of unitary protection. However, enhanced cooperation is a method by which those Member States who are ready and willing to implement deeper integration between them can do so, on the basis that those who are unable or unwilling at that time will do so in future. The only way for non-participating Member States to join the enhanced cooperation in future is to comply with the acts already adopted in that framework.[28] Spain and Italy argued

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25 Lamping, 895.
26 Closer co-operation was originally implemented by the Treaty of Amsterdam and although it was never used, it was amended by the Treaty of Nice, and again by the Treaty of Lisbon.
27 Lamping, 891.
28 Article 328(1) TFEU.

that they are willing to implement a unitary patent; however, neither was willing to sacrifice its language.

They also claimed that the enhanced cooperation procedure did not respect the rights of non-participating Member States by infringing their right to take part in the enhanced cooperation procedure in the future.[29] The Court ruled that it was 'permissible for those taking part in this cooperation to prescribe rules with which those non-participating States would not agree if they did take part' in the enhanced cooperation and so the Council was competent to adopt its decision.[30]

Examining the judgment of the CJEU in this aspect of the case is intriguing. It could be argued that the Council's Decision to authorise enhanced cooperation was flawed; however, the implementation of enhanced cooperation allows for deeper integration between Member States that are willing to do so when others are not able or willing. Article 328 TFEU mandates that the enhanced cooperation *be open to* all Member States subject to compliance with the acts already adopted.[31] It has been argued that this is not possible as Spain will not currently accept the language regime and is therefore permanently excluded if this regime is implemented against its will.[32] However, attempts towards introducing a unitary patent are longstanding. If the enhanced cooperation procedure were to be blocked by Spain in this way, the process could easily be blocked in future, which would render it useless.

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29 This was due to their aversion to the language regime, mentioned above.

30 Joined Cases C-274 and 295/11 *Kingdom of Spain and Italian Republic v Council of the European Union* ECLI:EU:C:2013:240, para 82.

31 Lamping, 897.

32 Thomas Jaeger, 'Back to square one? An assessment of the latest proposals for a patent and court for the internal market and possible alternatives' (2012) 43(3) IIC 286, 290.

It had been proposed in negotiations that the only language used should be English;[33] however, unless Germany and France are willing to do what they are asking of Spain and Italy, this would never be achieved. The CJEU stated that:

> As provided in Article 20(2) TEU, the situation that may lawfully lead to enhanced cooperation is that in which 'the objectives of such cooperation cannot be attained within a reasonable period by the Union as a whole'. The impossibility referred to in that provision may be due to various causes, for example, lack of interest on the part of one or more Member States or the inability of the Member States, who have all shown themselves interested in the adoption of an arrangement at Union level, to reach agreement on the content of that arrangement.[34]

There is an overall interest and an ability to achieve these objectives; however, there is a refusal to do so based on deeply rooted, fundamentally legitimate, national interests.[35] The differentiation resulting from enhanced cooperation is therefore neither an opting out of joint action nor an inability to meet admissibility requirements – it is arguably exclusion.[36] However, the CJEU ruled that within the ambit of enhanced cooperation, creating European intellectual property rights

[33] Council Document (EU) 13031/10 of 31 August 2010 on Reflection from the Spanish delegation on a possible model for the Regulation on translations [2010] LIMITE PI 94.

[34] Joined Cases C-274 and 295/11 *Kingdom of Spain and Italian Republic v Council of the European Union* ECLI:EU:C:2013:240, para 36.

[35] Lamping, 909.

[36] Lamping, 910; and Hanns Ullrich, 'Harmonizing Patent Law: The Untamable Union Patent' [2012] Max Planck Institute for Intellectual Property and Competition Law Research Paper No. 12-03 <http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2027920> accessed 30 September 2016, 22.

for participating Member States, with effect only in those Member States, created no discrimination or distortion of competition.[37]

(B) ENHANCED COOPERATION WAS NOT A LAST RESORT

The claimed exclusionary nature of the enhanced cooperation procedure ties in with the third plea raised in the Spanish and Italian case – it was argued that negotiations had by no means been exhausted and therefore the implementation of enhanced cooperation was not a last resort, as necessitated by Article 20 TEU.[38] As mentioned above, Spain proposed an alternative language regime that did not include Spanish, showing a willingness to negotiate.

A question is raised here regarding the interpretation of 'last resort' – whether is it based on an ability or willingness to integrate.[39] The answer to this question is determinative as to whether enhanced cooperation in this area was a 'last resort'. However, it must be borne in mind that the lack of unanimity on a language regime has persisted across decades[40] and so this regime may be qualified as a last resort. So, on the other hand, without enhanced cooperation the unitary patent package may never have come into existence.

Others argue that 'the "last resort" condition is not satisfied only where Member States disagree with the very idea of proposed legislation; it should also be considered satisfied whenever agreement among all Member States seems impossible to reach in the foreseeable future, regardless of the reasons why', and

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37 Joined Cases C-274 and 295/11 *Kingdom of Spain and Italian Republic v Council of the European Union* ECLI:EU:C:2013:240, para 68.
38 Joined Cases C-274 and 295/11 *Kingdom of Spain and Italian Republic v Council of the European Union* ECLI:EU:C:2013:240, para 42.
39 Jaeger, Square, 290.
40 Lamping, 910.

so could be acceptable in this situation.[41] However, if agreement were impossible, this could go against the purpose and the nature of the enhanced cooperation procedure. According to Hans Ullrich, demonstrating lengthy discussions and a long-lasting division of opinion may not be enough – 'there must be sufficient evidence of the seriousness of a search for a compromise' – an arguable point in the current circumstances.[42]

The Court ruled that the Council was best placed to determine whether the Member States had demonstrated any willingness to compromise.[43] It was found that a considerable number of language arrangements for the European patent with unitary effect were discussed and that 'none of those arrangements, with or without the addition of elements of compromise, found support capable of leading to the adoption of a full "legislative package"' for the EU.[44] It was accepted that all means had been exhausted.

IV. CRITICISMS OF THE NATURE OF THE RIGHT AND THE ROLE OF THE EU AND ITS INSTITUTIONS

As mentioned, the European patent with unitary effect is a creation of EU law; however, it may be said that the effect of transferring Articles 6-8 of draft Regulation 1257 into the UPCA was to found the European patent in international rather Union law, which has created some legal uncertainty. With regard to the legal nature of the European patent with unitary effect there are two inter-related aspects to the issue that have been the subject of fierce debate: the nature of the

41 Steve Peers, 'The constitutional implications of the EU patent' (2011) 7(2) ECL Review 229, 250.

42 Hanns Ullrich, 'Enhanced cooperation in the area of unitary patent protection and European integration' [2013] 13 ERA Forum 589, 595.

43 Joined Cases C-274 and 295/11 *Kingdom of Spain and Italian Republic v Council of the European Union* ECLI:EU:C:2013:240, para 53.

44 Joined Cases C-274 and 295/11 *Kingdom of Spain and Italian Republic v Council of the European Union* ECLI:EU:C:2013:240, paras 54-56.

rights contained in Regulation 1257; and the role of the EU and its institutions in the future European patent system.

(A) NATURE OF THE RIGHT

In terms of substantive content, Regulation 1257 creates a new title of patent conferring unitary effect and uniform protection. This is clear from Article 3 Regulation 1257:

> A European patent with unitary effect shall have a unitary character. It shall provide uniform protection and shall have equal effect in all the participating Member States. It may only be limited, transferred or revoked, or lapse, in respect of all the participating Member States. It may be licensed in respect of the whole or part of the territories of the participating Member States.

The scope of uniform protection is further elaborated in Article 5 Regulation 1257:

> (1) The European patent with unitary effect shall confer on its proprietor the right to prevent any third party from committing acts against which that patent provides protection throughout the territories of the participating Member States in which it has unitary effect, subject to applicable limitations.

(2) The scope of that right and its limitations shall be uniform in all participating Member States in which the patent has unitary effect.

(3) The acts against which the patent provides protection referred to in paragraph 1 and the applicable limitations shall be those defined by the law applied to European patents with unitary effect in the participating Member State whose national law is applicable to the European patent with unitary effect as an object of property in accordance with Article 7.

These are the main substantive provisions of Regulation 1257, conferring unitary effect, and unitary protection governed by national law.

Despite these provisions, it has been said that the deletion of Articles 6–8 made Regulation 1257 an 'empty shell'[45] creating a new title of patent which makes its substantive content a matter for national law. This reference to national law could be said to directly undermine the unitary effect of the patent.[46] However, since the Regulations will only become applicable for Member States that have ratified the UPCA, and those States will be bound by the version of Articles 6-8 that appear in Articles 25-27 of the UPCA,[47] the reference to

[45] Thomas Jaeger, Unitary Patent Package, 7.

[46] Avgi Kaisi, 'Finally a single European right for the EU? An analysis of the substantive provisions of the European patent with unitary effect' (2014) 36(3) EIPR 170, 178 and 179.

[47] Article 25 UPCA – Right to prevent the direct use of the invention: A patent shall confer on its proprietor the right to prevent any third party not having the proprietor's consent from the following: (a) making, offering, placing on the market or using a product which is the subject matter of the patent, or importing or storing the product for those purposes; (b) using a process which is the subject matter of the patent or, where the third party knows, or should have known, that the use of the process is prohibited without the consent of the patent proprietor, offering the process for use within the territory of the Contracting Member States in which that patent has effect; (c) offering, placing on the market, using, or importing or storing for those purposes a product obtained directly by a process which is the subject matter of the patent.
Article 26 UPCA – Right to prevent the indirect use of the invention: (1) A patent shall confer on its proprietor the right to prevent any third party not having the proprietor's consent from supplying or offering to supply, within the territory of the Contracting Member States in which that patent has effect, any person other than a party entitled to exploit the patented invention,

'national law' in Article 5 is in effect a reference to the UPCA.[48] Nonetheless, the fact remains that the European (EU) patent with unitary effect derives its content from a non-EU instrument, namely the UPCA.

Of relevance regarding the legal nature of the European patent with unitary effect is the case mentioned above, wherein Spain and Italy challenged the legality of the Regulations.[49] Many issues were brought before the CJEU and all pleas were rejected. However, the legal basis of the Regulations and the possibility of them increasing fragmentation in the European patent system were raised in the fourth plea. The Court ruled that introducing a unitary patent would create more integration and so these claims were unfounded because it was decided that in relation to Article 118 TFEU, uniform rights were indeed being created within the territory of Member States, just not all of them.[50]

The CJEU validated the legal basis of the Regulation in these two initial cases; however, as mentioned, Spain subsequently brought two further actions,[51] which were also dismissed. Legal basis issues were raised again in these actions. Spain argued that no act of the EU existed and, in the alternative, that there was no introduction of measures guaranteeing uniform protection as required by

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with means, relating to an essential element of that invention, for putting it into effect therein, when the third party knows, or should have known, that those means are suitable and intended for putting that invention into effect. (2) Paragraph 1 shall not apply when the means are staple commercial products, except where the third party induces the person supplied to perform any of the acts prohibited by Article 25. (3) Persons performing the acts referred to in Article 27(a) to (e) shall not be considered to be parties entitled to exploit the invention within the meaning of paragraph 1.

Article 27 UPCA – Limitations of the effects of a patent.

48 See: Winfried Tilmann, 'The compromise on the uniform protection for EU patents' (2013) 8(1) JIPLP 78, 81.

49 Joined Cases C-274 and 295/11 *Kingdom of Spain and Italian Republic v Council of the European Union* ECLI:EU:C:2013:240.

50 Joined Cases C-274 and 295/11 *Kingdom of Spain and Italian Republic v Council of the European Union* ECLI:EU:C:2013:240, para 68.

51 Case C-146/13 *Kingdom of Spain v European Parliament and the Council of the European Union* ECLI:EU:C:2015:298 and Case C-147/13 *Kingdom of Spain v Council of the European Union* ECLI:EU:C:2015:299.

Article 118 TFEU.[52] Advocate General Bot, whose opinion was followed by the CJEU, stated that Regulation 1257 is not an empty shell and that uniform protection is guaranteed:

> Each European patent will be subject to the national law of a single Member State and that legislation will apply throughout the territory of the participating Member States.[53]

In an examination of the specific provisions of Regulation 1257, the CJEU found that there exists a 'guarantee that the designated national law will be applied in the territory of all participating Member States in which that patent has unitary effect', and therefore, the contested Regulation provides uniform protection within the meaning of Article 118 TFEU.[54]

The legal basis of the new language regime in the proposed European unitary patent system was also brought up in the second of the more recent Spanish cases.[55] The claim was a challenge to the validity of Article 4 Regulation 1260, which states that:

> In the event of a dispute relating to an alleged infringement of a European patent with unitary effect, the patent proprietor shall provide at the request and the choice of an alleged infringer, a full translation

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52 Case C-146/13 *Kingdom of Spain v European Parliament and the Council of the European Union* ECLI:EU:C:2015:298, para 33.

53 Case C-146/13 *Kingdom of Spain v European Parliament and the Council of the European Union* ECLI:EU:C:2015:298, Opinion of AG Bot, para 93. Tilmann also raises the incorporating referral argument mentioned above in support of the legal basis of Regulation 1257. Accordingly, Articles 3 and 5 provide the unitary effect necessary and only part of the legal requirements for uniform protection is dealt with by an incorporating referral. See: Winfried Tilmann, 'Spain's action against the EU patent package – arguments and counter-arguments in case C-146/13' (2014) 36(1) EIPR 4, 5.

54 Case C-146/13 *Kingdom of Spain v European Parliament and the Council of the European Union* ECLI:EU:C:2015:298, para 47.

55 Case C-147/13 *Kingdom of Spain v Council of the European Union* ECLI:EU:C:2015:299.

> of the European patent with unitary effect into an official language of either the participating Member State in which the alleged infringement took place or the Member State in which the alleged infringer is domiciled.

According to Spain, Article 4 of the contested Regulation is not a provision relating to language arrangements within the meaning of the second paragraph of Article 118 TFEU and therefore, it cannot be used as a legal basis to incorporate certain procedural safeguards in the context of legal proceedings.[56]

On the contrary, following the opinion of Advocate General Bot, Article 4 of the contested Regulation was found to be 'intrinsically linked to the linguistic regime in so far as its aim is to temper the choice made by the EU legislature concerning the linguistic regime for the European patent with unitary effect'.[57] Indeed, this provision is to limit the effect of the three-language regime choice and to allow alleged infringers to have equal standing with all the information they require, in their own language, in an action brought against them. The CJEU also found that Article 4 Regulation 1260 is clearly a direct part of the language arrangements for the European patent with unitary effect because those arrangements are defined by the Regulation as a whole and so Article 4 cannot be detached with respect to legal basis.[58] It was held that Article 118 TFEU correctly serves as a legal basis for Regulation 1260.[59]

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[56] Case C-147/13 *Kingdom of Spain v Council of the European Union* ECLI:EU:C:2015:299, para 65.

[57] Case C-147/13 *Kingdom of Spain v Council of the European Union* ECLI:EU:C:2015:299, Opinion of AG Bot, para 88.

[58] Case C-147/13 *Kingdom of Spain v Council of the European Union* ECLI:EU:C:2015:299, para 73.

[59] Alternative arguments suggest that Regulation 1257 would find a more acceptable legal basis in Article 114 TFEU, as the piecemeal harmonisation this would achieve is characteristic of internal market legislation. See, for example: Jaeger, Shield, 390. Article 114 TFEU: The European Parliament and the Council shall, acting in accordance with the ordinary legislative procedure and after consulting the Economic and Social Committee, adopt the measures for the

Although the legal basis of the Regulations has been confirmed, this does not detract from the fact that the nature of that right is found in both EU and non-EU instruments, which causes legal uncertainty.

(B) THE ROLE OF THE EU AND ITS INSTITUTIONS

The reason for transferring Articles 6-8 from Regulation 1257 to the UPCA was quite transparent, unlike much of the negotiations leading up to this Regulation: the aim was to prevent the CJEU from deciding matters of substantive patent law. As discussed, Article 118 TFEU allows the establishment of measures to provide uniform protection of intellectual property rights throughout the Union and this is the legal basis for Regulation 1257. It is therefore an EU instrument and so the CJEU has the jurisdiction to interpret its provisions.[60] If the Regulation had included further provisions on substantive patent law, the CJEU would have had the power to interpret those provisions also. Following criticisms of the CJEU's track record in patent matters in recent years,[61] this was unacceptable to some, including the UK and several academic[62] and industry[63] commentators. Robin Jacob went so far as to say:

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approximation of the provisions laid down by law, regulation or administrative action in Member States which have as their object the establishment and functioning of the internal market.

60 Only if a preliminary referral is requested pursuant to Article 267 TFEU.

61 Jaeger, Unitary Patent Package, 9. There are also numerous cases that have gone to the CJEU regarding supplementary protection certificates, which have been significantly criticised; however, this aspect is beyond the scope of this thesis.

62 Rudolf Kraβer, 'Effects of an inclusion of regulations concerning the content and limits of the patent holder's rights to prohibit in an EU regulation for the creation of unitary European patent protection' [2011] <http://www.eplawpatentblog.com/2011/October/Opinion%20Prof%20Krasser%20EN.pdf> accessed 30 September 2016 (Study by Rudolf Kraβer); and Robin Jacob, 'Opinion' [2011] <http://www.eplawpatentblog.com/2011/November/Robin%2020Jacob%2020Opinion%2020re%2020Arts.pdf> accessed 30 September 2016 (Opinion Letter of Robin Jacob).

63 IP Federation, 'Unitary Patent Protection – Articles 6–8 of the proposed Regulation of the European Parliament and Council' [2012] <www.ipfederation.com/document_download.php?id=1293> accessed 30 September 2016.

> I have no doubt whatever that if Arts 6-8 are included in the Regulation the whole endeavour will have failed to produce what was intended: a better system for litigation of patents in Europe than that which we have now. I know of no one in favour of involvement of the CJEU in patent litigation. On the contrary, all users, lawyers and judges are unanimously against it.[64]

Another argument in favour of limiting the jurisdiction of the CJEU by transferring Articles 6-8 to the UPCA was that patent law is so technical in nature as to require its enforcement by a specialist patent court. Underlying this argument was a separate concern that the CJEU, as generalist court, could be expected to weaken patent protection in Europe.[65] The European Patent Lawyers Association (EPLAW) expressed this view in a press release, as well as the view that having the CJEU interpret these provisions would lead to uncertainty, delay and cost because the judges of the CJEU do not have expertise in patent law.[66] Furthermore, it was argued that patent law matters often require the assistance of technical experts, not automatically available at the CJEU, which would lead to even further costs.[67] This would also be contrary to the aim of the UPP to ensure the 'rapid and effective enforcement of intellectual property rights'.[68] Accordingly, a central aim of creating a European patent with unitary effect and European patent court would be frustrated.[69]

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64 Opinion Letter of Robin Jacob.

65 For more on the argument for patent specialists on panels of superior courts see: Darren Smyth, 'Patent law decisions from Supreme Courts: how can non-specialist judges decide this field of law?' (2014) 9(1) JIPLP 31.

66 EPLAW, 'New European Patent Court: An unwanted Present for Industry – An Unnecessary Rush in Brussels' [2011] <http://www.iam-media.com/files/EPLAW%20Press%20Release.pdf> accessed 30 September 2016.

67 Study by Rudolf Kraβer.

68 Study by Rudolf Kraβer.

69 Opinion Letter of Robin Jacob.

Also criticised by opponents to the original Articles 6-8 was the length of time that new patent cases might take to be resolved if referred to the CJEU.[70] As the 'constitutional court of the EU',[71] the CJEU deals with cases from all areas of EU law. Taking the cases emanating from the European Union Intellectual Property Office (EUIPO) on the Trade Marks Directive as an example, a significant delay is experienced when questions are referred as a result of the CJEU being overrun with cases.[72] Therefore, it was argued that any expectation of rapid decision-making in the patent field would be unrealistic if the range of patent law cases requiring reference to the CJEU were to expand beyond their existing level.

Furthermore, and as noted previously, the record of the CJEU in cases on intellectual property law in general has been widely criticised.[73] The CJEU has been said to take an over-active role in cases on intellectual property law, including patent law, with detrimental effects for its substantive provisions[74] and is likely to exploit further any additional jurisdiction under the UPP to the same detrimental effect. The result of these criticisms was statements such as that made by members of the IP Federation, who wrote a policy paper advocating the deletion of Articles 6-8, in which they argued that:

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70 Jan Smits and William Bull, 'The Europeanization of Patent Law: Towards a Competitive Model' in Ansgar Ohly and Justine Pila (eds), *The Europeanization of Intellectual Property Law: Towards a European Legal Methodology* (OUP 2013) 52.

71 Study by Rudolf Kraβer.

72 Ansgar Ohly, 'Concluding Remarks: Postmodernism and Beyond' in Ansgar Ohly and Justine Pila (eds), *The Europeanization of Intellectual Property Law: Towards a European Legal Methodology* (OUP 2013) 258.

73 Tuomas Mylly, 'A Constitutional Perspective' in Justine Pila and Christopher Wadlow (eds), *The Unitary EU Patent System* (Hart Publishing 2014).

74 For one example, see below for a discussion of Case C-34/10 *Oliver Brüstle v Greenpeace e.V.* ECLI:EU:C:2011:669. On developments in new technologies see: Avgi Kaisi, 'Finally a single European right for the EU? An analysis of the substantive provisions of the European patent with unitary effect' (2014) 36(3) EIPR 170, who argues that the UPP should have been taken advantage of to cover issues that the EPC left uncovered in 1973, such as the patentability of computer programs and of biotechnological inventions, and lead the EU in a new stage of development capable of competing other advanced IPR protection systems.

> If Articles 6-8 are left in the Regulation … the whole dossier will have failed to meet its most fundamental objective of delivering a better patent system in Europe.[75]

Baroness Wilcox, then Intellectual Property Minister of the UK, and many other politicians who spoke to the UK House of Commons, voiced the same opinion in a letter to the Polish Presidency, which had been spearheading the campaign for the unitary patent.[76] So too did JURI member Cecilia Wikström, who raised the questions of Professor Sir Robin Jacob and Jochen Pagenberg of EPLAW above at a JURI debate on the patent proposals in November 2011.[77]

The alternative stance on this issue has been just as well represented. At the time, the arguments for the inclusion of Articles 6-8 were grounded in the legal basis of the Regulation, or as was projected, the lack thereof without these articles. The main focus was that without them the Regulation would lack legal basis by creating an EU right without substantive law or EU oversight. Without Articles 6-8 a total of five substantive provisions remain, three of which are declaratory, rarely used or refer to national law.[78] Therefore, the question arose whether those remaining provisions gave the unitary patent a sufficiently 'Communitarian character,'[79] or whether its legal basis would undermine its intended purpose.[80]

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[75] IP Federation, 'Unitary Patent Protection Regulation – Articles 6-8' [2011] Policy Paper PP19/11.

[76] House of Commons European Scrutiny Committee, 'Forty-eighth Report of session 2010-12' [2011] <http://www.publications.parliament.uk/pa/cm201012/cmselect/cmeuleg/428-xliii/428.pdf> accessed 30 September 2016, Section 5.

[77] As reported in the following piece: <http://ipkitten.blogspot.co.uk/2011/12/recap-update-unitary-patent-system-and.html> accessed 30 September 2016.

[78] Christopher Wadlow, '"Hamlet without the Prince": Can the Unitary Patent Regulation strut its stuff without Articles 6 – 8?' (2013) 8(3) JIPLP 207, 210.

[79] Christopher Wadlow, '"Hamlet without the Prince": Can the Unitary Patent Regulation strut its stuff without Articles 6 – 8?' (2013) 8(3) JIPLP 207, 210.

[80] Hanns Ullrich, 'Select from within the System: The European Patent with Unitary Effect' [2012] Max Planck Institute for Intellectual Property and Competition Law Research Paper

Professor Winfried Tilmann gave written evidence to the European Scrutiny Committee neatly summing up the main arguments in what could be described as a response to 'The Kraβer Argument' – one of the first arguments calling for the deletion of Articles 6-8. Tilmann started by noting that Articles 6 and 7 of the proposed Regulation were drafted to follow the Community Trade Mark (CTM) and Community Design Regulations, 'which have regulated the cease-and-desist claim in the case of infringement' in these areas 'as an autonomous Union law claim'.[81] He argued that the number of cases referred by national courts concerning the Community Trade mark and the equivalent article therein – Article 102 CTM – was in fact low and that it was not until eleven years after the CTM and Design Regulations' implementation that the most important referral was made.[82] Preliminary references were said to be the rare exception and unlikely to effect the overall functioning of the proposed unitary patent system.[83]

It was also suggested by Tilmann that the CJEU could be expected not to be over-active in answering any questions referred to it as it 'normally' is not, and to disregard questions on anything other than EU law, thus safeguarding principles established by the non-EU EPC.[84] The peculiarity of introducing EU patent protection in order to benefit from the EU regime, yet attempting to exclude the court responsible for overseeing and enforcing that regime has also been emphasised.[85]

No. 12-11 <http://www.rzecznikpatentowy.org.pl/nie_dla_pat_jed/SSRN-id2027920.pdf> accessed 30 September 2016.

81 Winfried Tilmann, 'The Battle about Article 6-8 of the Union Patent Regulation' [2012] European Scrutiny Committee Written Evidence <http://www.publications.parliament.uk/pa/cm201012/cmselect/cmeuleg/1799/1799vw06.htm > accessed 30 September 2016, para 4.

82 Tilmann, Written evidence, para 4.

83 Hanns Ullrich, 'Enhanced cooperation in the area of unitary patent protection and European integration' [2013] 13 ERA Forum 589, 599.

84 Tilmann, Written evidence, para 12.

85 Thomas Jaeger, 'Shielding the unitary patent from the ECJ: a rash and futile exercise' (2013) 44(4) IIC 389, 391.

A decision was made in November 2012: Articles 6-8 were deleted, transferred into the UPCA, a new compromise in Article 5 Regulation 1257 was formed, and the UPP was finalised.[86] However, rather than clarifying the CJEU's jurisdiction with respect to substantive patent law matters, the result has been uncertainty regarding the scope of that jurisdiction. As Angelos Dimopoulos has written:

> [I]t is controversial whether the legal effects of European patents with unitary effect are defined in [Regulation 1257], and thus, whether they are subject to the jurisdiction of the CJEU.[87]

Some commentators believe that it would be naïve to think that the CJEU will not fill in any blanks that are left by Regulation 1257[88] and could go so far as to deem the entire package unconstitutional if referred a question on its interpretation.[89] One commentary has stated that the livelihood of the Regulation will 'depend on how far the CJEU will be willing to go – either the CJEU construes the Regulation as incorporating the UPCA provisions or as authorising the development of an entirely new body of law'.[90] From an alternative perspective, it could be beneficial to have the overview of a generalist court in order to ensure

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86 Cyprus Presidency of the Council of the European Union, Press Release of 20 November, 'Unitary patent closer to the finishing line' [2012] <http://www.cy2012.eu/en/news/press-release-unitary-patent-closer-to-the-finishing-line> accessed 30 September 2016.

87 Angelos Dimopoulos, 'An Institutional Perspective II: The Role of the CJEU in the Unitary (EU) Patent System' in Justine Pila and Christopher Wadlow (eds), *The Unitary EU Patent System* (Hart Publishing 2014).

88 Jaeger, Shield, 391.

89 Mylly, 79. The CJEU has sometimes taken an aggressive stance when its own role and jurisdiction are challenged. See, for example: Opinion 1/91 ECLI:EU:C:1991:490; Opinion 2/94 ECLI:EU:C:1996:140; and Opinion 2/13 ECLI:EU:C:2014:2454. However, as will be discussed in detail below, the CJEU had the opportunity to give an opinion on the legality of the UPP and did not stand in its way.

90 Katharina Kaesling, 'The European patent with unitary effect – a unitary patent protection for a unitary market?' (2013) 2(1) UCL JL and J 87, 100.

that fundamental rights and principles such as human dignity are taken into account.[91]

In an interesting turn-around, Professor Tilmann is now of the opinion that even without Articles 6-8 the Regulation is constitutional. Following their deletion, the compromise Article 5 was introduced and so long as subparagraph three is interpreted as an 'incorporating referral,' Tilmann maintains that the provisions of the UPCA are a part of the Article 5 rule on uniform protection and so belong to Union law:[92] therefore, a unitary right has been created and will provide protection throughout the Union via incorporating referral to the UPCA, thus the CJEU may have scope over the entire package.

V. Criticisms of the Rules Governing the Unitary Patent as an Object of Property

Considering that patents are becoming more and more important as business assets, the unitary patent as an object of property has increasing importance.[93] In addition, this aspect is specifically referred to in Article 5(3) Regulation 1257 and therefore has significant importance to the UPP. The unitary patent as an object of property concerns: the transfer of rights; enforcement proceedings; insolvency;

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[91] This will be discussed further below regarding the Agreement on a Unified Patent Court, however, see: Justine Pila, 'An Historical Perspective I: The Unitary Patent Package' in Justine Pila and Christopher Wadlow (eds), *The Unitary EU Patent System* (Hart Publishing 2014); Clement Salung Petersen, Thomas Riis, and Jens Schovsbo, 'The Unified Patent Court (UPC) in Action: How Will the Design of the UPC Affect Patent Law?' in Rosa Maria Ballardini, Marcus Norrgård and Niklas Bruun (eds), *Transitions in European Patent Law: Influences of the Unitary Patent Package* (Kluwer 2015); and Alain Strowel and Hee-Eun Kim, 'The Balancing Impact of General EU Law on European Intellectual Property Jurisprudence' in Ansgar Ohly and Justine Pila (eds), *The Europeanization of Intellectual Property Law: Towards a European Legal Methodology* (OUP 2013).

[92] Winfried Tilmann, 'The compromise on the uniform protection for EU patents' (2013) 8(1) JIPLP 78, 81.

[93] Hans Ullrich, 'The Property Aspects of the European Patent with Unitary Effect: A National Perspective for a European Prospect?' [2013] Max Planck Institute for Intellectual Property and Competition Law Research Paper No. 13-17 <http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2347921> accessed 30 September 2016, 1.

licensing; applications for protective rights; rights *in rem*; the willingness to grant a licence; and compulsory licensing.[94] Article 7 Regulation 1257 states that:

> (1) A European patent with unitary effect as an object of property shall be treated in its entirety and in all the participating Member States as a national patent of the participating Member State in which that patent has unitary effect and in which, according to the European Patent Register:
> (a) the applicant had his 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, the applicant had a place of business on the date of filing of the application for the European patent.
>
> (2) Where two or more persons are entered in the European Patent Register as joint applicants, point (a) of paragraph 1 shall apply to the joint applicant indicated first. Where this is not possible, point (a) of paragraph 1 shall apply to the next joint applicant indicated in the order of entry. Where point (a) of paragraph 1 does not apply to any of the joint applicants, point (b) of paragraph 1 shall apply accordingly.
>
> (3) Where no applicant had his residence, principal place of business or place of business in a participating Member State in which that patent has unitary effect for the purposes of paragraphs 1 or 2, the European patent with unitary effect as an object of property shall be

[94] Tilman Muller-Stoy and Florian Paschold, 'European patent with unitary effect as a property right' (2014) 9(10) JIPLP 848, 856, with reference to previous Community Patent Agreements, the Community Trademark Regulation and the Community Design Regulation.

> treated in its entirety and in all the participating Member States as a national patent of the State where the European Patent Organisation has its headquarters in accordance with Article 6(1) of the EPC.

The property aspects of the unitary patent are therefore mostly dealt with by national law – either the national law of the residence or principle place of business of the patentee, or if neither are within the territory of participating Member States, a place of business. If none of the above options is available, then German law applies – as the Member State where the EPO has its headquarters.

The criticism of this provision is that by having a unitary patent as an object of property based on the national law of the principal place of business/residence of a specific patentee for one single patent, throughout the participating Member States, a plethora of different national property laws will exist for different patents. Users will not know which of the national laws will apply to which patents. This will be especially apparent with regard to compulsory licenses.[95] Overall, the situation has even been described as going against the purpose of the Regulations:

> [T]he very choice of having a multiplicity of national laws control the property aspects of unitary patents is insufficiently related to, if not in conflict with the purpose of the UP-Regulation to establish patent protection with unitary effect throughout the area of enhanced cooperation.[96]

[95] Ullrich, Untamable, 40.
[96] Ullrich, Property Aspects, 15.

However, in an attempt circumvent this criticism, Advocate General Bot has stated that despite the application of national law to unitary patents as an object of property, the Regulation provides for uniform protection across the participating Member States because the national law applicable to a particular unitary patent will be the same across all of the participating Member States.[97]

It is argued that this problem is exacerbated for those without a principal place of business, residence or place of business within the territory of the Member States participating in enhanced cooperation.[98] An issue here is the fallback provision, which prescribes German law as the national law applicable to patentees who have no domicile or place of business in any of the participating Member States. This will apply to many international owners of European patents with unitary effect. The risk identified is that German property law may take over the unitary patent as an object of property, which would have the anti-integrative effect of a national Member State imposing their law on assignments and licences on all other Member States. National property (and procedural and remedial) laws are not harmonised, and so a lack of uniformity could exist regarding this aspect of patents, which could result in Article 7 Regulation 1257 failing to fulfil the purpose of Article 118 TFEU.[99]

It has also been stated that Article 7 could potentially go so far as to entail an indirect discrimination on grounds of nationality[100] as the unitary patents of Spanish enterprises (for example) would always be governed by foreign law,[101] and enterprises that are domiciled in Member States participating in the enhanced

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[97] Case C-146/13 *Kingdom of Spain v European Parliament and the Council of the European Union* ECLI:EU:C:2015:298, Opinion of AG Bot, para 93.
[98] Ullrich, Property Aspects, 10.
[99] Ullrich, Property Aspects, 10.
[100] Under Article 18 TFEU.
[101] As expressed in the following piece: <http://ipkitten.blogspot.co.uk/2013/03/spain-takes-parliament-and-council-to.html> accessed 30 September 2016.

cooperation will have the preference of their unitary patents being governed by their domestic law.[102] As stated by Hans Ullrich:

> This preferential treatment of applicants domiciled in a Member State of the enhanced cooperation group amounts to an indirect discrimination on grounds of nationality, because the residence or the principle place of business of a patent applicant typically corresponds to his/her nationality.[103]

These problems arise because the unitary patent as an object of property is not governed by a rule of uniform Union law.[104]

Article 7 is one of the substantive patent law provisions of Regulation 1257 that has remained in place and so if implemented, the CJEU will certainly have the opportunity to interpret this area, if asked.

VI. CRITICISMS OF THE ROLE OF THE EPO

The criticism of the role of the EPO is because it has been entrusted with fulfilling many of the administrative duties of the unitary patent. It has been argued that an EU institution would be better suited to oversee the grant of unitary patents since its legal basis would be in EU law and that – unlike the EPO – it would be subject to judicial review. However, this is not to be the case and so concerns have arisen regarding the delegation of these tasks to another non-EU entity. The pleas of the more recent Spanish cases raise the issue of the role of the EPO in relation to the unitary patent Regulations.

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[102] Ullrich, Property Aspects, 12.
[103] Ullrich, Property Aspects, 12.
[104] Ullrich, Property Aspects, 12.

Regulation 1257 is a 'special agreement' within the meaning of Article 142 EPC.[105] The provisions on special agreements allow a group of Contracting States to the EPC to provide that patents granted in their regions have unitary character. These provisions are found in Part IX of the EPC. Regulation 1257 uses these provisions in delegating to the EPO tasks regarding: receiving and examining requests for unitary effect; creating a unitary patent register; and dealing with renewal fees.[106] A Select Committee to govern and supervise these additional tasks will also be established by the group of EPC Contracting States participating in the enhanced cooperation concerning unitary patent protection.[107] It has been suggested by some, that the creation of the European patent with unitary effect involves an unwarranted development in the 'scope of the EPC norms and an enlargement of the tasks of the EPO'.[108]

In the pleas of the more recent case brought by Spain to the CJEU, Regulation 1257 is said to breach the values of the rule of law in so far as a regulation has been established on the basis of a right granted by the EPO, whose acts are not subject to judicial review.[109] Furthermore, the Regulation is said to be an infringement of Article 291(2) TFEU and, in the alternative, a misapplication of the *Meroni*[110] case-law in the regulation of the system for setting renewal fees and for determining the share of distribution of those fees.[111] Additionally, it has been argued that there has been a misapplication of the *Meroni* case law in the

[105] Article 142 EPC: Any group of Contracting States, which has provided by a special agreement that a European patent granted for those States has a unitary character throughout their territories, may provide that a European patent may only be granted jointly in respect of all those States.
[106] Article 9 Regulation 1257.
[107] Article 9 Regulation 1257.
[108] Alfredo Ilardi, *The New European Patent* (Hart Publishing 2015) 47.
[109] Case C-146/13 *Kingdom of Spain v European Parliament and the Council of the European Union* ECLI:EU:C:2015:298, para 24.
[110] Case 9/56 *Meroni & Co, Industrie Metallurgiche, SpA v High Authority of the European Coal and Steel Community* ECLI:EU:C:1958:7.
[111] Case C-146/13 *Kingdom of Spain v European Parliament and the Council of the European Union* ECLI:EU:C:2015:298, para 60.

delegation to the EPO of certain administrative tasks relating to the European patent with unitary effect.[112] It was held in *Meroni* that 'the delegation by an EU institution to a private entity of a discretionary power implying a wide margin of discretion and capable, according to the use which is made of it, of making possible the execution of actual economic policy, is not compatible with the requirements of the TFEU'.[113]

Tilmann has also given his opinion on this matter and seems certain that no valid arguments have been raised and that there is no reason to delay the implementation of the UPP.[114] Regarding the pleas mentioned above, transferring powers to the EPO may cause consternation, as some maintain that judicial control is mandatory if the EU is delegating powers to an international body or otherwise.[115] On the contrary, Tilmann asserts that EU power has not been transferred to the EPO. The Regulation merely provides the standard European patent with an additional quality of unitary effect; decisions of the EPO regarding European patents with unitary effect will be subject to judicial control under Article 9(3) Regulation 1257,[116] implemented by the UPCA.[117]

Regarding the delegation of certain tasks to Member States being contrary to Article 291(2) TFEU, which permits delegations to the Council or Commission only, Tilmann contends that it and *Meroni* do not apply. The power given to Member States regarding unitary patents is by international law, the European

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[112] Case C-146/13 *Kingdom of Spain v European Parliament and the Council of the European Union* ECLI:EU:C:2015:298, para 63.

[113] Case C-146/13 *Kingdom of Spain v European Parliament and the Council of the European Union* ECLI:EU:C:2015:298, para 84 citing Case 9/56 *Meroni & Co, Industrie Metallurgiche, SpA v High Authority of the European Coal and Steel Community* ECLI:EU:C:1958:7, 154.

[114] Tilmann, Spain, 8.

[115] Jaeger, Square, 294.

[116] Article 9(3) Regulation 1257 states: The participating Member States shall ensure effective legal protection before a competent court of one or several participating Member States against the decisions of the EPO in carrying out the tasks referred to it in paragraph 1.

[117] Tilmann, Spain, 5.

Patent Convention (EPC), and under Article 142(1) EPC it is for the signatories of the group to decide.[118]

Advocate General Bot agreed with Tilmann in opining that Regulation 1257 does not delegate powers to the EPO:

> The regulation only attributes to European patents an additional characteristic, namely unitary effect, without affecting the procedure regulated by the Convention. The protection conferred is regulated by the uniform implementation provisions of the regulation.[119]

The CJEU agreed entirely, stating that:

> [T]he contested regulation is in no way intended to delimit, even partially, the conditions for granting European patents – which are exclusively governed by the EPC and not by EU law – and… it does not 'incorporate' the procedure for granting European patents laid down by the EPC into EU law.[120]

The CJEU went on to say that the administrative procedure concerned was in fact legal, rejecting the first plea outright.

Regarding the delegation of tasks to the EPO, it was found that, because the contested Regulation was classified as a 'special agreement' under Article 142

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[118] Tilmann, Spain, 6.

[119] Case C-146/13 *Kingdom of Spain v European Parliament and the Council of the European Union* ECLI:EU:C:2015:298 and Case C-147/13 *Kingdom of Spain v Council of the European Union* ECLI:EU:C:2015:299, Opinion of AG Bot.

[120] Case C-146/13 *Kingdom of Spain v European Parliament and the Council of the European Union* ECLI:EU:C:2015:298, para 30.

EPC, the Contracting Member States held the right to do this.[121] Furthermore, the EU legislature did not delegate any exclusive implementing powers under EU law to the Contracting Member States or to the EPO and so *Meroni* could not in fact apply.[122]

The second plea of the more recent case brought by Spain against Regulation 1260 also alleged a breach of the principles set out in *Meroni* by delegating the administration of the compensation scheme for the reimbursement of translation costs and the publication of the translations under the transitional regime in Articles 5 and 6(2) to the EPO.[123] The same arguments from the fourth and fifth pleas in the case against Regulation 1257 above apply here. The CJEU took a similar stance to that taken in the pleas against Regulation 1257 and rejected the second plea.

VII. Economic Criticisms

Cost is one of the most controversial aspects of the proposed European patent with unitary effect; however, there is no concrete provision in either Regulation 1257 or Regulation 1260 that answers questions on this matter. Cost was, and is, one of the main reasons for the attempts to implement a unitary patent. As mentioned above, the cost of a European patent designating twenty-five Member States is €32,119. Figures have emerged indicating the renewal fees of the unitary patent, and these are not as low as some expected or as high as others expected.[124]

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[121] Case C-146/13 *Kingdom of Spain v European Parliament and the Council of the European Union* ECLI:EU:C:2015:298, para 82.

[122] Case C-146/13 *Kingdom of Spain v European Parliament and the Council of the European Union* ECLI:EU:C:2015:298, para 87.

[123] Case C-147/13 *Kingdom of Spain v Council of the European Union* ECLI:EU:C:2015:299, para 49.

[124] As indicated in: <http://ipkitten.blogspot.co.uk/2015/05/epo-revises-proposals-for-renewal-fees.html> accessed 30 September 2016.

From an initial examination, it has been suggested that a patentee would be better off in terms of renewal price if patent protection were necessary in only a small number of countries. If protection is deemed necessary in all Member States, the unitary patent renewal fees are significantly cheaper. However, not all figures have been released or decided, and as the cost of the unitary patent must cover its expenses, the unitary patent still runs the risk of being too expensive, in the early years at least.

Depending on these figures, the cost of the unitary patent could have a significant impact on who will use the system. If it is too expensive for the small and medium-sized enterprises, it will be firms that require expansive, EU-wide protection regardless, such as the pharmaceutical sector, that will use the system.

VIII. CRITICISMS OF THE LANGUAGE REGIME

Regulation 1260 was also criticised and accused of being an infringement of the principle of non-discrimination by introducing a scheme that would be to the detriment of persons whose mother tongue is not English, French, or German.[125] It was argued that the scheme was disproportionate to the objective pursued.[126]

This plea is highly relevant when considering the information society justifications for patent law. If patents were granted on the basis that the information and innovation within them are published to inform society and improve the development of new ideas, having the patent in only these languages would be useless to the inventors unable to understand them. Article 4(4) Regulation 1260 provides some consideration in the case of damages:

[125] Case C-147/13 *Kingdom of Spain v Council of the European Union* ECLI:EU:C:2015:299, para 22.
[126] Case C-147/13 *Kingdom of Spain v Council of the European Union* ECLI:EU:C:2015:299, para 22.

> In the event of a dispute concerning a claim for damages, *the court hearing the dispute shall assess and take into consideration,* in particular where the alleged infringer is a SME, a natural person or a non-profit organisation, a university or a public research organisation, *whether the alleged infringer acted without knowing or without reasonable grounds for knowing, that he was infringing the European patent with unitary effect before having been provided with the translation* referred to in paragraph 1 [emphasis added].

However, this does not provide the general justification of benefiting and divulging innovative information to society in return for patent protection. Some inventors will remain ignorant of some of the latest developments and could spend time working on a 'novel' idea that already exists and has not been made available in his language. Commentators have argued that:

> [T]he problem is that the language issue has been approached from too narrow a perspective with a view only to maintain[ing] existing structures and to benefit[ing] from them rather than to also review[ing] them in the interest of all market actors and all Member States.[127]

[127] Hanns Ullrich, 'Harmonizing Patent Law: The Untamable Union Patent' [2012] Max Planck Institute for Intellectual Property and Competition Law Research Paper No. 12-03 <http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2027920> accessed 30 September 2016, 16.

It was also contended that the rules were disproportionate and would lead to a distortion of competition in the internal market – market access would be more difficult for some and this cannot be justified by reasons in the public interest.[128]

Advocate General Bot acknowledged that there will be discrimination; however, be that as it may, the EU legislature is pursuing the legitimate objective of reducing translation costs,[129] those in the field are previously acquainted with the languages of the EPO,[130] and most patent applications are from States which speak these languages.[131] He was of the opinion that this claim was unfounded and the rules implemented were proportionate.

In deciding on this matter, the CJEU noted that a difference in treatment on the grounds of language must indeed observe the principle of proportionality. It was held that the aim of creating a uniform, simple and cost-effective regime for the European patent with unitary effect to ensure legal certainty, stimulate innovation and benefit small and medium-sized enterprises, was legitimate.[132] Moreover, the CJEU agreed once more with Advocate General Bot – the language regime was found to be appropriate, maintaining the necessary balance between various interests without going beyond that which is deemed necessary to achieve the legitimate objective pursued.[133] Adding to the justification of the language regime is the fact that as English, French and German are the working languages of the EPO, all applications to the EPO will be in one of those languages. Furthermore, 24% of filings at the EPO come from the United States, and would

[128] Case C-147/13 *Kingdom of Spain v Council of the European Union* ECLI:EU:C:2015:299, para 24.
[129] Case C-147/13 *Kingdom of Spain v Council of the European Union* ECLI:EU:C:2015:299, Opinion of AG Bot, para 50.
[130] Case C-147/13 *Kingdom of Spain v Council of the European Union* ECLI:EU:C:2015:299, Opinion of AG Bot, para 57.
[131] Case C-147/13 *Kingdom of Spain v Council of the European Union* ECLI:EU:C:2015:299, Opinion of AG Bot, para 58.
[132] Case C-147/13 *Kingdom of Spain v Council of the European Union* ECLI:EU:C:2015:299, para 34.
[133] Case C-147/13 *Kingdom of Spain v Council of the European Union* ECLI:EU:C:2015:299, para 47.

be in English.[134] Therefore, evidence suggests that most patents will be available in English, if not French or German, thus justifying the language regime and the decision of the CJEU that this regime is proportionate.

IX. CONCLUSION

The Regulations of the UPP have evidently caused enormous controversy in the European patent field. As shown, a number of criticisms have been raised regarding the content and effect of the proposed system on the European patent field. These potential issues, which range from legal and institutional, to economic, have caused numerous debates among government, users, industry and academics alike.

The criticisms raised above are not the only criticisms of the Regulations of the UPP. Concerns exist regarding constitutional legitimacy, discrimination, competence and competition, and so on.[135] However, those that have been discussed are the criticisms that are the most important to the UPP moving forward. Furthermore, the underlying theme of these concerns is that the rather than unifying the patent system in Europe, the UPP will serve to further fragment it.

The enhanced cooperation procedure has been criticised for excluding Spain and Italy and for being authorised when negotiations had arguably not been exhausted. Essentially, the concern is that the system will become even more fragmented seeing as some EU Member States will not be participating in the

[134] EPO, Statistics on Patent Filings in 2015 <https://www.epo.org/about-us/annual-reports-statistics/annual-report/2015/statistics/patent-filings.html?tab=3#tab1> accessed 30 September 2016.

[135] Reto M. Hilty, Thomas Jaeger, Matthias Lamping and Hanns Ullrich, 'The Unitary Patent Package: Twelve Reasons for Concern' [2012] Max Planck Institute for Intellectual Property & Competition Law Research Paper No. 12-12 <http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2169254> accessed 30 September 2016, 3.

proposed European unitary patent system. Different laws will be applicable in the Member States participating in the procedure compared to those that are outside it.

While the legal basis of the Regulations in Article 118 TFEU has been validated by the CJEU, concerns remain regarding the nature of the rights contained therein, and considerable uncertainty exists regarding and the future role of the CJEU under the UPP. After the deletion of Articles 6-8 Regulation 1257, the nature of the unitary patent right is unclear due to the substantive content of the unitary patent being defined in the non-EU UPCA. Fragmentation is apparent here because of the patchwork of law from which the right is implemented and from which it derives its substance – EU Regulations, EPC law, general EU law and international UPCA law – confusion is almost guaranteed. Furthermore, whatever role the CJEU declares itself to have, by expanding the jurisdictional scope of an institution, this introduces further fragmentation into the European patent system.

Furthermore, the concerns outlined above regarding the unitary patent as an object of property highlight the fragmenting nature of the Regulations. Although it will be in a uniform manner, by having national law apply in this area a number of different national laws will apply to a number of different unitary patents, thus fragmenting the system rather than unifying it.

The criticisms of the EPO acting as a granting body for an EU patent raise concerns as to the functioning of the proposed European unitary patent system. The proposed system has a legal basis in EU law; however, the administrative burden lies with an institution outside the EU. Having the EPO substantially involved in the administration of the European patent with unitary effect may

cause concern regarding the legitimacy of the proposed European unitary patent system, which was to be a EU system, but is now being administered by the EPO.

Even the economic criticisms reflect a concern with an increase in fragmentation. The cost of the unitary patent could have a significant impact on who will use the system. This could result in fragmentation by encouraging the persistence of numerous titles of (domestic, EPC and unitary) patents in Europe, and of the different systems that exist to support them, and by limiting the integrative effects of the UPP to certain patentees only.

Finally, the language regime has been criticised for being discriminatory to both Spain and Italy, as well as to those whose native language is not English, German or French. This criticism reflects a concern with fragmentation along the same lines the economic considerations. This could also encourage the persistence of numerous patent titles and limit the integrative effects of the UPP.

Overall, it can be concluded that the most important criticisms of the Regulations of the UPP reflect a concern that rather than unifying the European patent system, the package will serve to further fragment it.

CHAPTER FOUR: CRITICISMS OF THE PROPOSED EUROPEAN UNITARY PATENT SYSTEM – THE AGREEMENT ON A UNIFIED PATENT COURT

I. INTRODUCTION

As we have seen, the unitary patent package (UPP) is comprised of three separate instruments, including the Agreement on a Unified Patent Court 2013 (UPCA or Agreement).[1] If and when the UPCA enters into force, there will exist, for the first time, a specialised European patent court to deliver cross-border judgments on patent law, throughout all contracting Member States of the European Union (EU).

Twenty-five out of twenty-eight EU Member States have signed the UPCA. Eleven of those twenty-five have ratified it. As with the Regulations above, the route to reaching consensus on a European patent court has also been lengthy and has involved numerous obstructions.[2] In general, the main purpose of a specialised patent court is the cross-border enforcement of high quality, expeditious judgments for patents throughout Europe in order to promote legal and institutional unity, in addition to legal certainty.[3] One of the main issues raised regarding the judicial institutions of the European patent system is the sheer volume of them. Having so many different domestic and supranational (including the Boards of Appeal of the EPO and the CJEU) tribunals interpreting principles of European patent law and enforcing patents granted on their basis causes fragmentation of the European patent system into a collection of different rules and procedures. As there are no objective or natural patent standards, elements of national economic and development policy underlie judicial determination and therefore possibilities remain for disparate judgments on the same inventions

1 Agreement 2013/C on a Unified Patent Court [2013] OJ L 175/01.

2 For more on this, see, for example: Christopher Wadlow, 'An Historical Perspective II: The Unified Patent Court' in Justine Pila and Christopher Wadlow (eds), *The Europeanization of Intellectual Property Law: Towards a European Legal Methodology* (OUP 2013).

3 UPCA, Preamble.

throughout Europe.[4] The UPCA is the latest attempt to address this issue by creating a single European patent court with exclusive jurisdiction for European patents (EPC and those with unitary effect) at least.

Despite being a significant development for the European patent system, the UPP has been widely criticised. As concluded in an investigation of the criticisms of the Regulations of the UPP in Chapter Three,[5] a common theme among critics exists: that instead of unifying the European patent system, the package will serve to further fragment it. This chapter will investigate the criticisms of the UPCA.

II. BACKGROUND

Prior to the UPCA, another very similar proposal for a European patent court had been put forward – the European and Community/European Union Patents Court (EEUPC). Its decisions were to have effect for the whole territory of the European Union with regard to an EU patent (which was to be introduced alongside the court) and with regard to European patents for the territory of applicable Contracting States.[6] It was to be implemented as an international court that would

4 Dimitris Xenos, 'The European Unified Patent Court: Assessment and Implications of the Federalisation of the Patent System in Europe' (2013) 10(2) SCRIPTed 245, 256.

5 Council Regulation (EU) 1257/2012 of the European Parliament and of the Council of 17 December 2012 implementing enhanced cooperation in the area of the creation of unitary patent protection [2012] OJ L 361/1 and Council Regulation (EU) 1260/2012 of the European Parliament and of the Council 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] OJ L 361/89.

6 Clement Salung Petersen and Jens Schovsbo, 'On Law and Policy in a European and European Union Patent Court (EEUPC) – What Will it do to Patent Law and What Will Patent Law do to it?' [2010] <http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1572521> accessed 30 September 2016, 13.

include non-EU Member States, instead of a common national court[7] comprising of only EU Member States.[8]

The constitutionality of the EEUPC was questioned and the agreement outlining it was deemed to be incompatible with the EU Treaties by the Court of Justice of the European Union (CJEU) in Opinion 1/09.[9] It held that:

> [T]he envisaged agreement, by conferring on an international court which is outside the institutional and judicial framework of the European Union an exclusive jurisdiction to hear a significant number of actions brought by individuals in the field of the [European Union] patent and to interpret and apply European Union law in that field, would deprive courts of Member States of their powers in relation to the interpretation and application of European Union law and the Court of its powers to reply, by preliminary ruling, to questions referred by those courts and, consequently, would alter the essential character of the powers which the Treaties confer on the institutions of the European Union and on the Member States and which are indispensable to the preservation of the very nature of European Union law.[10]

The Court expressed that the Member States are the 'guardians' of the EU legal order and so removing their right to refer questions to the CJEU was incompatible

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7 Similar to the framework of the Benelux Court of Justice.

8 Jan Smits and William Bull, 'The Europeanization of Patent Law: Towards a Competitive Model' in Ohly A and Pila J (eds), *The Europeanization of Intellectual Property Law: Towards a European Legal Methodology* (OUP 2013) 52.

9 Opinion 1/09 ECLI:EU:C:2011:123 (Opinion 1/09).

10 Opinion 1/09, para 89.

with the EU Treaties.[11] Furthermore, as there would be no way to ensure the EEUPC would refer questions to the CJEU on matters of EU law, and without remedies for individuals against breaches of EU law,[12] the agreement was not in line with the Treaties.[13]

As the EEUPC is essentially a predecessor of the UPCA, criticisms of it have relevance in this context.[14] It has been suggested that it has become much more difficult to implement a European patent court that extends beyond the EU due to the CJEU's protective attitude over the EU legal order.[15] As a court common to all EPC Contracting States is inconsistent with EU law, the UPCA will only ever have jurisdiction over at most twenty-eight Member States,[16] unless those outside the EU decide to join.

Following the result of Opinion 1/09, which has been described as unconvincing in some respects,[17] it was back to the drawing board regarding the creation of a European patent court. The Council clung on to the mention of the Benelux Court of Justice in Opinion 1/09 and took an approach described as 'The EEUPC is dead, long live the EEUPC'.[18] The result was the UPCA. However, as well as being criticised for being quite similar to the EEUPC, the UPCA has also been criticised for a variety of other reasons, which will be discussed below.

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11 Opinion 1/09, para 66.

12 Thomas Jaeger, 'What's in the Unitary Patent Package?' [2014] Max Planck Institute for Intellectual Property & Competition Law Research Paper No. 14 – 08 <http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2435125> accessed 30 September 2016, 12.

13 Opinion 1/09, para 89.

14 For comments on the EEUPC, see: Thomas Jaeger, Reto Hilty, Joseph Drexel and Hanns Ullrich, 'Comments of the Max Planck Institute for Intellectual Property, Competition and Tax Law on the 2009 Commission proposal for the establishment of a unified European patent judiciary' (2009) 40(7) IIC 817.

15 Tobias Lock, 'Taking national courts more seriously? Comment on Opinion 1/09' (2011) 36(4) EL Rev 576, 577.

16 Ansgar Ohly, 'Concluding Remarks: Postmodernism and Beyond' in Ansgar Ohly and Justine Pila (eds), *The Europeanization of Intellectual Property Law: Towards a European Legal Methodology* (OUP 2013) 259.

17 Steve Peers, 'The constitutional implications of the EU patent' (2011) 7(2) ECL Review 229, 247.

18 Thomas Jaeger, 'Back to square one? An assessment of the latest proposals for a patent and court for the internal market and possible alternatives' (2012) 43(3) IIC 286, 296.

III. CRITICISMS OF THE LIMITED MEMBERSHIP OF THE UPC

One of the main criticisms of the UPCA is the fact that its membership is limited. As discussed, the decision in Opinion 1/09 maintained that a court common to all Contracting States to the EPC is inconsistent with EU law. Therefore, the UPC will only have jurisdiction over EU Member States. However, this is not the only limitation to its membership.

(A) SPAIN

As previously mentioned, one of the harshest critics of the proposed European unitary patent system, Spain, brought a number of cases to the CJEU challenging the legality of the UPP.[19] Relevant here are the final pleas of the more recent cases, both of which argued that there had been a breach of the principles of autonomy and uniformity in the application of EU law regarding the rules governing the entry into force of the Regulations and their dependence on the entry into force of the UPCA.[20]

It was argued by the parties that, due to the lack of substantial difference between the current agreement and the EEUPC, the UPCA is also incompatible with the EU Treaties because it attempts to alter the essential powers of the EU and its institutions.[21] It was also argued that the necessary competence was

[19] Joined Cases C-274 and 295/11 *Kingdom of Spain and Italian Republic v Council of the European Union* ECLI:EU:C:2013:240; Case C-146/13 *Kingdom of Spain v European Parliament and the Council of the European Union* ECLI:EU:C:2015:298; and Case C-147/13 *Kingdom of Spain v Council of the European Union* ECLI:EU:C:2015:299.

[20] Case C-146/13 *Kingdom of Spain v European Parliament and the Council of the European Union* ECLI:EU:C:2015:298, para 89-99; and Case C-147/13 *Kingdom of Spain v Council of the European Union* ECLI:EU:C:2015:299, para 90-92.

[21] Case C-146/13 *Kingdom of Spain v European Parliament and the Council of the European Union* ECLI:EU:C:2015:298, paras 90-92.

lacking – that the EU has exclusive competence in concluding international treaties and for Member States to do so was impermissible. Following on from this, Spain argued that Member States were being given 'the capacity to decide unilaterally whether the regulations is to apply to them',[22] and from when, which was said to infringe principles of autonomy and the uniform application of EU law.[23]

Advocate General Bot was of the opinion that: first, the CJEU did not have jurisdiction to review the content of the UPCA; and second, the coupling of the Regulations to the ratification of the UPCA was necessary to ensure the proper functioning of the European patent with unitary effect and legal certainty.[24] It was recommended that both actions be dismissed.

The CJEU agreed and held that it did not have jurisdiction to rule on the content of the UPCA.[25] In reference to the connection between the Regulations and the UPCA, it was concluded that because the EU had given Member States the authority to adopt the necessary legislative, regulatory, administrative and financial measures to ensure the application of the provisions of the Regulations, the application of the provisions was not independent of any measure of reception into national law.[26] The Court decided that being given the capacity to decide unilaterally whether the Regulations are to apply in a particular Member State, by

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[22] Case C-146/13 *Kingdom of Spain v European Parliament and the Council of the European Union* ECLI:EU:C:2015:298,para 93.

[23] Case C-147/13 *Kingdom of Spain v Council of the European Union* ECLI:EU:C:2015:299, para 90.

[24] Case C-146/13 *Kingdom of Spain v European Parliament and the Council of the European Union* ECLI:EU:C:2015:298, Opinion of AG Bot, paras 159-160, 179 and 180; and Case C-147/13 *Kingdom of Spain v Council of the European Union* ECLI:EU:C:2015:299, Opinion of AG Bot, para 124.

[25] Case C-146/13 *Kingdom of Spain v European Parliament and the Council of the European Union* ECLI:EU:C:2015:298, para 101.

[26] Case C-146/13 *Kingdom of Spain v European Parliament and the Council of the European Union* ECLI:EU:C:2015:298, para 106; and Case C-147/13 *Kingdom of Spain v Council of the European Union* ECLI:EU:C:2015:299, para 95.

that Member State, was based on a false premise – the provision in question only allowed derogation from specific clauses.[27]

Although all cases brought by Spain were rejected by the CJEU, the arguments raised remain of relevance. It is apparent that Spain has significant issues with the UPCA and so whether it will ever participate in the UPP is questionable.

(B) RATIFICATION AND BREXIT

The discussion above also highlights some features of the UPCA that must be examined in more detail, for example its ratification. Ratification has been a consistent problem for the implementation of a unitary patent system in Europe, and this is no different for the UPCA. Part V of the UPCA deals with the signature and ratification of, and accession to, the Agreement.

As mentioned, in 2013, twenty-five out of twenty-eight Member States of the EU signed the UPCA. This created the first problem. The UPCA was drafted in order to unify the European patent system throughout the EU by implementing cross-border enforcement of high quality and expeditious judgments. Spain refused to sign the UPCA for reasons that can be deduced from the discussion above and in Chapter Three; Croatia was not yet a Member State of the EU, but has since indicated a disinterest in accession;[28] and Poland decided not to sign the UPCA on the basis of an economic report.[29] Commentators have argued that the

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[27] Case C-146/13 *Kingdom of Spain v European Parliament and the Council of the European Union* ECLI:EU:C:2015:298, para 107.

[28] Stefan Luginbuehl, 'An Institutional Perspective I: The Role of the EPO in the Unitary (EU) Patent System' in Justine Pila and Christopher Wadlow (eds), *The Unitary EU Patent System* (Hart Publishing 2014) 46.

[29] Deloitte, 'Analysis of prospective economic effects related to the implementation of the system of unitary patent protection in Poland' [2012] <http://www.uil-sipo.si/uploads/media/UPP-Analiza-PL.pdf> accessed 30 September 2016.

effect of not having a full set of signatures could result in limited membership of the UPC and having to address a Spanish and Polish court separately.[30]

Although Italy was in a different situation, that has now changed. Until the conclusion of the most recent cases challenging the legality of the UPP before the CJEU, Italy did not agree to participate in the enhanced cooperation concerning the UPP. However, it had signed the UPCA. In that situation, unitary patent protection would not be available in Italy, but revocation actions against European patents taking effect in Italy could have been taken to the UPCA (if the Agreement were ratified in Italy). However, following the CJEU approval of the UPP, Italy decided to participate in the enhanced cooperation procedure for the creation of unitary patent protection and has formally notified the Council of its decision.[31] This will now place Italy in the same position as the other Contracting Member States.

Adding to issues with the ratification procedure of the proposed European unitary patent system is Article 89 UPCA, which states:

> This Agreement shall enter into force on 1 January 2014 or on the first day of the fourth month after the deposit of the thirteenth instrument of ratification or accession in accordance with Article 84, including the three Member States in which the highest number of European patents had effect in the year preceding the year in which the signature of the Agreement takes place or on the first day of the fourth month after the date of the entry into force of the amendments to Regulation

[30] Smits and Bull, 51.

[31] Interinstitutional Files 10621/15 of 7 July 2015 regarding Notification by Italy of its intention to participate in the enhanced cooperation in the area of the creation of unitary patent protection and in the enhanced cooperation in the area of the creation of unitary patent protection with regard to the applicable translation arrangements [2015] PI 45.

(EU) No 1215/2012 concerning its relationship with this Agreement, whichever is last.

Accordingly, only thirteen Member States, including France, Germany, and the UK, need to ratify the UPCA for it to enter into force. As the initial implementation date has come and gone and Regulation 1215/2012 was amended before the UPCA was signed, the last remaining stipulation is the deposit of the instruments of ratification. Eleven Member States,[32] including France, have ratified the UPCA. Therefore, only Germany and the UK must ratify the UCPA for the UPP to enter into force.

However, another problem has recently emerged that may have an impact on the ratification of the UPCA – the decision of the UK, by referendum, to leave the EU (Brexit). Brexit will have wide implications, including for the patent field. It may cause another significant delay to the entry into force of a unitary patent system. Indeed, it is possible that the proposed European unitary patent system cannot survive without the UK. One of the reasons for this is because the UK is one of the most highly esteemed countries in Europe for patent law expertise. Another reason is the cost of court fees in the UK, which are notoriously high. One of the proclaimed advantages of the UPC is the reduced cost of the system. This cost takes into account the notoriously high fees of the UK court system. If the UK does not participate in the UPC, users will have to bring separate revocation actions in the UK courts. Therefore, an action before the UPC may not be as attractive without the UK's participation. If the UK does leave the EU, and the UPCA is renegotiated, the cost of bringing an action to the UPC will have to

[32] These Member States include: Austria, Belgium, Bulgaria, Denmark, France, Luxembourg, Malta, Netherlands, Portugal, Sweden and Finland.

be lowered for the system to be appealing to the remaining Contracting Member States.

If by chance the UPCA is ratified by the UK (and Germany),[33] it will only have effect in the Member States that have ratified it. That number could be as low as thirteen. This has raised a relevant and significant concern. Member States can essentially decide when to implement the UPP by choosing when to ratify the UPCA. If thirteen Member States ratify the Agreement and it enters into force, there is nothing to prevent the remaining Member States from joining the system in the years following – it is in fact encouraged. However, if this is a stagnated process, some unitary patents will exist for thirteen Member States, some will exist for fifteen Member States, and so on. This is a problem that could persist over decades. The first unitary patents will not cover the entire territory of the Contracting Member States, let alone the EU. Different laws will apply in different Member States, and a number courts will have jurisdiction over patent cases in Europe.[34]

Despite the successful ratification of the UPCA in eleven Member States, certain groups are having second thoughts. This may have an impact on the ratification process elsewhere, possibly further limiting the membership of the Agreement. The European Software Market Association and others in Belgium challenged the ratification of the UPCA before the Belgian Constitutional Court.[35] This appeal was deemed to be inadmissible due to the non-observance of time limits rather than disagreement with the arguments raised against the ratification

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[33] This remains legally possible pre-Brexit, but politically unlikely. For more on this discussion see: Richard Gordon QC and Tom Pascoe, 'Re The Effect of "Brexit" on the Unitary Patent Regulation and The Unified Patent Court Agreement' [2016] <http://www.bristowsupc.com/assets/files/counsel_s%20opinion%20on%20effect%20of%20brexit%20on%20upc,%2012%20sept%202016.pdf> accessed 30 September 2016.

[34] Luginbuehl, 47.

[35] ESOMA, 'Unitary Patent Challenged at the Belgian Constitutional Court' [2015] <http://www.esoma.org/forum/t-1162188/unitary-patent-challenged-at-the-belgian-constitutional-cour> accessed 30 September 2016.

of the Agreement.[36] However, although the appeal was never heard, and the UPCA was ratified in Belgium, the fact that the case was taken displays a hesitance towards the implementation of the UPCA.

Another hurdle facing the membership of the UPC may be the necessity of a referendum in Ireland for the UPCA to be ratified (notwithstanding the success of the Danish referendum). The UPCA is now part of the Irish legislative program for government; however, a referendum is not foreseen until at least 2017.

Furthermore, there is a risk that the UPCA will never be ratified by the required Contracting Member States and thus, fail to be implemented, as was the case with one of its predecessors, that stood in the same position over forty years ago.[37] This is now even more likely because of Brexit.

Additionally, the apparent democratic deficit of the UPCA may also cause concern to some Contracting Member States. The Agreement had been submitted to the European Parliament but was never deliberated upon by it and it has been suggested that if national parliaments are not satisfied with the contents of the UPCA, as it cannot be amended or deliberated upon by them, nor can they have any formal input into its contents, the only option available to them is to ratify it or to refuse it in its entirety.[38]

Following the ruling of the CJEU in the more recent Spanish cases, all that stands in the way of the implementation of the UPP from a legislative point of view is the ratification of Germany and the UK. However, this will be the biggest hurdle for the UCPA to date.

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[36] Bristows, 'Belgian UPC Case Dropped' [2015] <http://www.bristowsupc.com/latest-news/Belgian-UPC-case-dropped/> accessed 30 September 2016.

[37] Convention for the European Patent for the Common Market (15 December 1975) (Community Patent Convention) (CPC).

[38] Hans Ullrich, 'The European patent and its courts: an uncertain prospect and an unfinished agenda' (2015) 46(1) IIC 1, 4.

IV. CRITICISMS OF THE JURISDICTION, COMPETENCE AND TRANSITIONAL PERIOD OF THE UPC

If implemented, it has been suggested that further complications will arise with the UPC because of the UPCA provisions on jurisdiction, competence and its transitional period. The most vital aspect of the UPCA is the UPC – a court common to Member States dealing with civil and commercial matters and so a court defined by EU Regulation 1215/2012 (Brussels I Regulation).[39] However, before an action can be brought before the UPC, it must establish its international jurisdiction, and only once this has been established can one turn to the question of the competence of the court.[40]

The UPCA expressly provides that the international jurisdiction of the Court is to be established in accordance with the Brussels I Regulation.[41] Therefore, the UPC can only hear cases for which the Brussels I Regulation grants jurisdiction.[42] Only then will the provisions on competence in the UPCA be relevant and only then will the UPC have any relevance in the European patent field.

Prior to the implementation of the UPCA, the Brussels I Regulation required an update, even though the Regulation had recently been amended and recast with no mention of the UPCA.[43] As the UPC was only loosely based on the Benelux Court of Justice[44] (with which the Brussels I Regulation deals

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39 Council Regulation (EU) 1215/2012 of the European Parliament and of the Council of 12 December 2012 on jurisdiction and the recognition and enforcement of judgments in civil and commercial matters (Recast) [2012] OJ L 351/1 (Brussels I Regulation).

40 Paul LC Torremans, 'An International Perspective II: A View from Private International Law' in Justine Pila and Christopher Wadlow (eds), *The Unitary EU Patent System* (Hart Publishing 2014) 163.

41 Article 31 and 89 UPCA.

42 Torremans, International Perspective, 164.

43 Jochen Pagenberg, 'Unitary patent and Unified Court – What lies ahead?' (2013) 8(6) JIPLP 480, 483.

44 Jaeger, Square, 299-301.

specifically) an amendment was necessary to ensure compliance between the Brussels I Regulation and the UPCA, as well as to address the issue of defendants domiciled in non-EU Member States. The amendment entered into force[45] and while the drafting is not explicitly clear, the intent of the amendment was to transfer the relevant jurisdiction of national courts to the UPC.[46]

The main problems that have been expressed regarding the jurisdiction of the UPC concern the related provisions of the transitional period of the UPCA.[47] Over a seven-year period, both the UPC and national courts will have jurisdiction. As a result, actions for infringement or for the revocation of a European patent may still be brought before national courts or other competent national authorities. This could lead to a disastrous situation wherein a national court declares a European patent valid and enforced, awards damages, and at the same time, the UPC declares all designations of that patent void.[48] The possibility of avoiding this kind of situation depends on the judges who 'may' stay proceedings, as *lis pendens* would possibly not operate.[49] Otherwise, the situation will depend on the likelihood of the defendant dropping the case at the national court. Critics maintain that this situation is not ideal and could cause further confusion.[50]

The criticisms of the jurisdiction elements of the UPC are arguably exacerbated when it comes to defendants who are not domiciled in a Member

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45 Council Regulation (EU) No 542/2014 of the European Parliament and of the Council of 15 May 2014 amending Council Regulation (EU) 1215/2012 as regards the rules to be applied with respect to the Unified Patent Court and the Benelux Court of Justice [2014] OJ L 163/1.

46 For more detailed discussion on this amendment, see: Torremans, Institutional Perspective, 164, who argues that although the amendments were proposed as 'mere clarifications', they were in fact fundamental to the main jurisdictional rules of the Brussels I Regulation, and furthermore, that these changes were concealed by being placed at the end of the Regulation in Article 71(a)-(d).

47 For more on the transitional provisions, see: Richard Pinckney, 'Understanding the transitional provisions of the Agreement on the Unified Patent Court' (2015) 37(5) EIPR 268.

48 Torremans, International Perspective, 175.

49 Torremans, International Perspective, 175; and for further examples, see: Torremans, International Perspective, 176; and Torsten Bjørn Larsen, 'A "bundle" of national patents v a European patent with unitary effect: A jurisdictional comparison' in Graeme B Dinwoodie (ed), *Intellectual Property and General Legal Principles: Is IP a Lex Specialis?* (Edward Elgar 2015).

50 Torremans, International Perspective, 175.

State. Initially, the same rules were to apply regardless of the defendant's domicile; however, this fundamental change to the Brussels I Regulation had failed in the earlier recast. It could not therefore be introduced purely on the basis of a single agreement - in fact, with the stipulation that it was dealing with pure subject matter jurisdiction, it was introduced.[51] This amendment to the Brussels I Regulation has been criticised as suffering from a lack of clarity and potentially causing problems at a jurisdictional level that could have been easily avoided.[52] Instead of taking the time necessary to draft these provisions carefully, the amendment, much like the unitary patent package, was rushed through. It was adopted in record time, having been initiated in July 2013 and entered into force in May 2014.[53] If jurisdiction cannot be granted, the UPC will fail to operate.

Maintaining an optimistic perspective, the Brussels I Regulation will grant jurisdiction and these issues will be dealt with as the system becomes operational. The competence provisions of the UPCA will then become relevant. The Court will have exclusive competence regarding unitary patents and European patents over:

(a) actions for actual or threatened infringements of patents and supplementary protection certificates and related defences, including counterclaims concerning licences;
(b) actions for declarations of non-infringement of patents and supplementary protection certificates;
(c) actions for provisional and protective measures and injunctions;

[51] Torremans, International Perspective, 175.
[52] Torremans, International Perspective, 175.
[53] Luginbuehl, 47 and Stefan Luginbuehl and Dieter Stauder, 'Application of Revised Rules on Jurisdiction under Brussels I Regulation to patent lawsuits' (2015) 10(2) JIPLP 135, 136.

(d) actions for revocation of patents and for declaration of invalidity of supplementary protection certificates;

(e) counterclaims for revocation of patents and for declaration of invalidity of supplementary protection certificates;

(f) actions for damages or compensation derived from the provisional protection conferred by a published European patent application;

(g) actions relating to the use of the invention prior to the granting of the patent or to the right based on prior use of the invention;

(h) actions for compensation for licences on the basis of Article 8 of Regulation 1257/2012; and

(i) actions concerning decisions of the EPO in carrying out the tasks referred to in Article 9 of Regulation 1257/2012.[54]

National courts will have competence over matters that do not fall under the above provision. The competence of the Court is quite extensive and most matters will be judged to fall therein; however, some matters are left to national law, for example, the unitary patent (and classic European patent) as an object of property.[55]

There is also an option for those who do not wish to take part in the new system, or for those who do not wish to find themselves under the extensive jurisdiction and competence of the Court as a defendant. Under Article 83 UPCA, during the transitional period of seven years,[56] a European patent-holder has the possibility to opt out of the exclusive competence of the UPC. The UPC will lose

[54] Article 32 UPCA.
[55] As discussed in Chapter Three.
[56] For more on the transitional period see: Winfried Tilmann, 'The Transitional Period of the Agreement on a Unified Patent Court' (2014) 9(7) JIPLP 575.

its jurisdiction, and as a consequence, no division will remain competent to adjudicate actions for those European patents.[57] Once the Registry of the Unified Patent Court has been notified and the opt-out has been entered into the register, the European patent will progress as if the UPC does not exist.

Whether to opt out is of particular concern before the introduction of the unitary patent package as European patents will otherwise be automatically opted in to the new system.[58] As this would be a radical change, the opportunity is given to opt out; however, once the transitional period comes to an end,[59] the UPC will have exclusive jurisdiction in the contracting states of the UPCA concerning patent disputes relating to all European patents that have not been the subject of an opt-out.. If proceedings have been brought to the UPC prior to an opt-out registration, there will be no choice; the case must come before the court in question.[60] A patent can also be opted back in and so the reverse situation is also true. Unless an action has been brought before a national court, the patentee can withdraw his opt-out from the register.[61] Of relevance here are the Rules of Procedure of the UPC. Stipulated therein is a provision which states that if an action is taken at either level, there is from that point an absolute bar on an opt-out or withdrawal of an opt-out, which makes the decision of patentees extremely important.[62]

The main legislative concern with the opt-out among observers was whether it could in fact be registered before action was taken at the UPC since the Registry is to come into existence on the same day as the Court. The other issues raised regarding the opt-out were in respect to the lack of clarity as to when the

[57] Tilmann, Transitional Period, 581.
[58] Paul England, 'In? Out? What's it all about? Patent opt-out and withdrawal in the UPC' (2014) 9(11) JIPLP 915, 915.
[59] The opt-out can be extended by a further seven years.
[60] Article 83(3) UPCA.
[61] Article 83(4) UPCA.
[62] Preliminary set of provisions for the Rules of Procedure ('Rules') of the Unified Patent Court, 18th draft of 19 October 2015, Rule 5.7 and Rule 5.9,

opt-out would take effect, and whether it would have retrospective effect.[63] This was resolved with the introduction of a 'sunrise period' which allows the patentee to opt out before the UPCA enters into force.[64] As a result, whether to opt out will now depend on preference of the individual patentee. Although originally set at €80 per patent family,[65] it has since been decided that there will be no opt-out fee, which has come as a relief for firms with heavy patent portfolios and for small and medium-sized enterprises.[66]

The decision to remain within the competence of the UPC or to opt out must involve a balance between the positive effects of having a court implementing cross-border judgments, and the negative effects resulting from the institutional confusion that may arise on its implementation. The effect of numerous opt-outs may cause significant initial cost to those remaining within the competence of the UPC, and may also confuse the market if different patents are opted in and opted out of the system. This could be highly detrimental to the initial running and legitimacy of the UPC.

V. PROCEDURAL CRITICISMS

As mentioned, the UPCA aims to create a specialised patent court that will enforce cross-border, high quality, expeditious judgments for patents throughout Europe, in order to promote legal and institutional unity, in addition to legal certainty. It also proposes to reduce the costs of patent protection and create a

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63 These concerns were expressed at the Oral Hearing of the Preliminary set of provisions for the Rules of Procedure ('Rules') of the Unified Patent Court, 17th draft of 31 October 2014 <http://upchearing.era-comm.eu/en/> accessed 30 September 2016.

64 England, 919.

65 As reported on: <http://ipkitten.blogspot.co.uk/2015/05/preparatory-committee-launches.html> accessed 30 September 2016.

66 For the latest on Court Fees, see: <https://www.unified-patent-court.org/sites/default/files/agreed_and_final_r370_subject_to_legal_scrubbing_to_secretariat.pdf> accessed 30 September 2016.

simple, streamlined patent litigation system.[67] One of the most important factors when creating this type of system is the predictability of decisions. However, there have been concerns that confusion and complications could arise as a result of various procedural aspects of the UPC. Criticisms to do with the structure of the Court, and the possibility of bifurcation will now be examined.

(A) THE STRUCTURE OF THE UNIFIED PATENT COURT

The UPCA provides that the Court will comprise a Court of First Instance, a Court of Appeal, and a Registry.[68] However, this 'unified' court could be criticised for not having many qualities associated with uniformity. It can be suggested that the structure and quantity of court divisions will cause confusion rather than predictability.

First of all, the Court of First Instance will be divided, comprising a central division, as well as local and regional divisions. Local divisions can be set up in any Contracting Member State on request. Additionally, if that Contracting Member State hears the required number of patent cases in the years preceding, up to four local divisions can be established.[69] For example, this could be the case in Germany and the UK. Regional divisions can be set up for two or more Contracting Member States upon their request. Sweden, Lithuania, Latvia and Estonia have formed an agreement on a regional division of the UPC.[70] Actions relating to infringement, counterclaims for revocation, provisional and protective

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67 Alexandra West, Siddharth Kusumakar and Tim Powell, 'Unitary patents and the Unified Patent Court' (2013) 19(4) CTLR 105, 105.

68 Article 6 UPCA.

69 Article 7(4) UPCA. On request, additional local divisions can be set up for every one hundred patent cases per year. The number of local divisions in one Contracting Member State will not exceed four.

70 European Commission, 'Commissioner Barnier welcomes the conclusion of the first agreement on a regional division of the Unified Patent Court by Sweden, Lithuania, Latvia and Estonia' [2014] <http://europa.eu/rapid/press-release_STATEMENT-14-46_en.htm> accessed 30 September 2016.

measures, injunctions, and damages or compensation derived from provisional protection and/or prior use, will come before local or regional divisions.[71]

The central division will consist of three seats. The main seat will be in Paris, with branches in London and Munich. Each seat of the central division will hear cases depending on the technology in the case at hand: London for patents dealing with human necessities, chemistry and metallurgy; Munich for patents dealing with mechanical engineering, lighting, heating, weapons and blasting; and Paris taking the main seat, dealing with the remainder, including electronics and computer sciences.[72]

The central division was drafted with the intention that it would consist of a single seat; however, as mentioned, a political battle ensued. Certain Contracting Member States gave ultimata and controversy surrounded the debate until the 'Brussels Compromise' was reached.[73] This compromise resulted in the central division split. The central division will deal with revocation or non-infringement actions unless this matter has previously been raised at a local or regional division.

The structure of the UPC also includes a Court of Appeal. Situated in Luxembourg, this court will hear every case on appeal from all of the central, local, and regional divisions. Therefore, the Court of Appeal has the opportunity and responsibility to ensure that the body of case law arising from the new UPC is clear, coherent and consistent; however, criticisms remain.[74]

The UPCA will add a significant number of divisions of the Court of First Instance into the European patent system. Determining which division takes a

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71 Article 32 UPCA.

72 Article 7 UPCA and Annex II UPCA.

73 European Commission, 'Commissioner Barnier welcomes the European Council's agreement on the seat of the Unified Patent Court – the final element in the patent package' [2012] <http://europa.eu/rapid/press-release_MEMO-12-509_en.htm> accessed 30 September 2016.

74 Ullrich, Uncertain and Unfinished, 3.

case may lead to uncertainty in the system. For example, it has been suggested that the UPC gives substantial scope to patentees in deciding which division infringement proceedings are brought.[75] It has been argued that, on the one hand, due to the unification of the litigation system, competition among courts will be removed.[76] However, from a user perspective, commentators have suggested that, in most cases, an action could be taken in any division, as it is possible to arrange trap purchases anywhere or to use a joinder of co-defendants who have a commercial relationship to expand the availability and choice of divisions.[77]

Additionally, this new structure may allow for more extensive forum shopping.[78] This observation is interesting due to the fact that a truly unified court system would not have such a problem. However, it has been predicted that 'even if a unified patent court is created, the experience in the United States of America (US) suggests that forum shopping would not be eliminated'.[79] The US patent court system is federal in nature, with ninety-four district courts (comparable to the UPC local, regional and central divisions), and appeals taken to the US Court of Appeals for the Federal Circuit (Federal Circuit).[80] It has been argued by Jan Smits and William Bull that forum shopping still occurs and that a disproportionate number of cases reach the same district courts, arguably due to

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75 Alan Johnson, 'Looking Forward: A User Perspective' in Justine Pila and Christopher Wadlow (eds), *The Unitary EU Patent System* (Hart Publishing 2014) 184.

76 Jan Brinkhof and Ansgar Ohly, 'Towards a Unified Patent Court in Europe' in Ansgar Ohly and Justine Pila (eds), *The Europeanization of Intellectual Property Law: Towards a European Legal Methodology* (OUP 2013) 214.

77 Johnson, Looking Forward, 184.

78 For more on forum shopping, see: Alan Johnson, 'Unitary Patents and the Unified Patent Court – Part 3: Forum Shopping and Jurisdictional Battles' [2013] CIPA <http://www.bristowsupc.com/assets/files/cipa-journal-114-upc3.pdf> accessed 30 September 2016; Jan Brinkhof and Ansgar Ohly, 'Towards a Unified Patent Court in Europe' in Ansgar Ohly and Justine Pila (eds), *The Europeanization of Intellectual Property Law: Towards a European Legal Methodology* (OUP 2013); and Alan Johnson, 'Looking Forward: A User Perspective' in Justine Pila and Christopher Wadlow (eds), *The Unitary EU Patent System* (Hart Publishing 2014).

79 Smits and Bull, 48.

80 Smits and Bull, 48.

persisting variations in substance and procedure.[81] Considering that a similar court structure to that of the US will be introduced by the proposed European unitary patent system, it has been asked whether the same difficulty will persist in Europe.

The structure of the UPC may also make it more feasible for patent assertion entities to enter the European patent system.[82] Patent assertion entities, or 'non-practicing entities', are a type of company that does not contribute to society in terms of conducting research, but have a business model of buying patents and using them to sue others. They have also been described as patent owners who obtain broad patents to ensnare real innovators inadvertently infringing that patent.[83]

Evidence from the US experience shows a significant issue with patent assertion entities, and because of the previously described similar court structures, the same problem could arise in Europe. However, this may not be the case entirely. The prevalence of patent assertion entities in the US stems from some features that are not present in the proposed system in Europe, such as the inability to recover costs against unsuccessful applicants and the huge cost of litigation. The risk of this occurring in Europe is therefore lower, but not negligible.

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81 Smits and Bull, 48.

82 For more on the risks of patent assertion entities, see: Elizabeth Siew Kuan Ng, 'Patent trolling: innovation at risk' [2009] 31(12) EIPR 593; Rochelle C Dreyfuss, 'An International Perspective I: A View from the United States' in Justine Pila and Christopher Wadlow (eds), *The Unitary EU Patent* (Hart Publishing 2014); Luke McDonagh, 'Exploring Perspectives of the Unified Patent Court and Unitary Patent within the Business and Legal Communities' [2014] United Kingdom Intellectual Property Office Report <https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/328035/UPC_Study.pdf> accessed 30 September 2016; and Avgi Kaisi, 'Finally a single European right for the EU? An analysis of the substantive provisions of the European patent with unitary effect' (2014) 36(3) EIPR 170.

83 Elizabeth Siew Kuan Ng, 'Patent trolling: innovation at risk' [2009] 31(12) EIPR 593, 596.

(B) BIFURCATION

Article 33(3) UPCA allows for the possibility of bifurcation in the new system. According to critics, this could potentially raise significant issues.[84] If a counterclaim for revocation is brought before a local or regional division, that division has a choice on how to proceed: first, both the action for infringement and the counterclaim can be judged simultaneously; second, the counterclaim can be referred to the central division and proceedings on infringement can be stayed at the local or regional division first seized; and finally, the entire action can be referred to the central division.

Bifurcation is the second option and has been described as a 'dysfunction' in the design of the UPC.[85] Only courts in certain Contracting Member States, such as Austria, Poland and Germany, are familiar with this process.[86] In these courts, bifurcation is handled well and results in speedier trials and decisions. However, having this procedure available, with which many of the prospective participants are unfamiliar, could be disastrous, hindering predictability, and causing unnecessary confusion.

The Rules of Procedure could appease the criticisms of bifurcation. Regardless of arguments against its inclusion,[87] it has been accepted that bifurcation will be an option for the new system; however, it was suggested that in

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[84] Richard Vary, 'Bifurcation: bad for business' [2012] <http://www.unitary-patent.eu/sites/www.unitary-patent.eu/files/nokia_vary_bifufcation.pdf> accessed 30 September 2016.

[85] Jaeger, Unitary Patent Package, 23; and Reto M. Hilty, Thomas Jaeger, Matthias Lamping and Hanns Ullrich, 'The Unitary Patent Package: Twelve Reasons for Concern' [2012] Max Planck Institute for Intellectual Property & Competition Law Research Paper No. 12-12 <http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2169254> accessed 30 September 2016, 3.

[86] For more detail on the bifurcation process in Germany, see: Maximillian Haedicke and Henrik Timmann, *Patent Law: A Handbook* (CH Beck 2013) 835-847.

[87] As stated in *European Central Bank v Document Security Systems Incorporated* [2007] EWHC 600 (Pat) [88]: 'This case therefore seems to me to be a very powerful illustration of why it is desirable to try infringement and validity issues together, where at all possible. If they are tried separately it is all too easy for the patentee to argue for a narrow interpretation of his claim when defending but an expansive interpretation when asserting infringement'.

a bifurcated case, invalidity should be expedited and further matters should be stayed until there has been a decision on validity.[88] This would remedy the fear of an injunction gap – the situation in which a case is bifurcated, validity is delayed, and an injunction is granted on what turns out to be an invalid patent. Therefore, a rule has been re-introduced into the Rules of Procedure requiring the central division to hear validity proceedings *before* the infringement hearing in the local or regional division.[89]

However, the introduction of bifurcation into the European patent system means that different divisions will be responsible for the outcome of the same case. The effect of splitting a case is to add another division into the process, which could lead to forum shopping and uncertainty for the patentee.

VI. QUALITY CRITICISMS

As seen above, the procedure of the UPC given rise to criticisms. So too has the possible quality of the resulting decisions. Concerns have been raised regarding the quality of the judges and the quality of their decisions. All interests must be protected and this will require a well functioning system with simplified procedures and highly qualified judges.[90] In order for this to be a reality, the UPC must ensure predictable and high quality decisions throughout all local, regional and central divisions. However, until the system is tried and tested it will lack predictability, which will be exacerbated by this new group of judges, from

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88 Oral Hearing of the Preliminary set of provisions for the Rules of Procedure ('Rules') of the Unified Patent Court, 17th draft of 31 October 2014 <http://upchearing.era-comm.eu/en/> accessed 30 September 2016.

89 Preliminary set of provisions for the Rules of Procedure ('Rules') of the Unified Patent Court, 18th draft of 19 October 2015, Rule 40(b). See, also: Alan Johnson, '17th draft Rules of Procedure now available – the highlights' [2014] <http://www.bristowsupc.com/commentary/17-draft-rules-of-procedure/> accessed 30 September 2016.

90 Franklin Dehousse, 'The Unified Court on Patents: The New Oxymoron of European Law' [2013] Egmont Paper 60 <http://www.egmontinstitute.be/wp-content/uploads/2013/11/ep60.pdf> accessed 30 September 2016, 41.

different traditions, operating in numerous divisions.[91] Although this could be said for any new system, the sheer number of court divisions and judges that will be involved in this particular system, coupled with differences in the previous experience of the judges with patent law, exacerbates the problem.

For the UPC to be successful, it must be more appealing than the pre-existing systems. It will have to compete with them. This is troublesome for the UPC because the existing systems have become predictable. Representatives in the patent field are well aware of the features of individual judicial bodies in Europe, especially where they will find the best quality judgments. German and UK courts are known for predictability and quality. Unfortunately, the UPC may have trouble matching this quality because of its procedural issues, but also due to the composition of the judicial panels of the UPC and the complicated nature of its language regime.

(A) COMPOSITION OF PANELS AND SELECTION OF JUDGES

The UPCA clearly outlines the future panel composition of all divisions of the Court of First Instance[92] and the Court of Appeal.[93] Common to all panels, whether local, regional, central or appeal, is the presence of a multinational composition of judges.

Local divisions hearing fewer than fifty patent cases per year will have panels that consist of three legally qualified judges: one national of the Contracting Member State hosting the division; and, two who are not nationals of that State.[94] Local divisions hearing more than fifty patent cases per year will

[91] Johnson, Looking Forward, 178.
[92] Article 8 UPCA.
[93] Article 9 UPCA.
[94] Article 8(2) UPCA.

include two legally qualified judges from that Contracting Member State and one who is not a national of that state.[95] The panels of regional divisions will consist of: two legally qualified judges chosen from a regional list of judges from the Contracting Member States concerned; and, one who is not a national of any Contracting Member State concerned.[96] According to the UPCA, any local or regional judicial panel may request an additional technically qualified judge who has experience in the field of the technology in the case at hand.[97]

At the central division, panels will consist of two legally qualified judges who are nationals of different Contracting Member States and one technically qualified judge in the field of technology concerned.[98]

The panel of the Court of Appeal will contain five judges of multinational composition.[99] This will include three legally qualified judges and two technically qualified judges.

The composition of the panels maintains the diversity of a multi-Member State court; however, the quality of the judges has been questioned.[100] The UPCA states that:

> Judges shall ensure the highest standards of competence and shall have proven experience in the field of patent litigation.[101]

However, all that needs to be shown to become a legally qualified judge is the possession of qualifications for appointment to judicial office in a Contracting Member State. For a technically qualified judge, a university degree and proven

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95 Article 8(3) UPCA.
96 Article 8(4) UPCA.
97 Article 8(5) UPCA.
98 Article 8(6) UPCA.
99 Article 9(1) UPCA.
100 Smits and Bull, 50; and Brinkhof and Ohly, 213 and 214.
101 Article 15(1) UPCA.

expertise in a field of technology, as well as the knowledge of civil law and procedure, is required. All qualified judges will enter a 'Pool of Judges' to be allocated accordingly.[102]

Considering the multinational composition of specialised courts, some commentators find it difficult to see how the UPC would do much better than the current systems against the 'obstacles to uniform interpretation of differing patent cultures and language barriers'.[103] This tension that exists between cultures in the European patent system will remain. It is part of the reason for the length of time it has taken to come to an agreement on a European unitary patent system. However, this could be one of the most beneficial aspects of the UPC. Judges from different Member States sitting on the same panel will have to come to a compromise. Sometimes this will be on issues where there has been a historical divergence between their countries. This could introduce a kind of European precedent.[104] The UPC cannot, however, begin with a clean slate; to begin with, it must rely on national and EPO jurisprudence in the absence of a European answer.[105]

Training is also available to judges of the UPC in a centre in Budapest.[106] This should ensure that the judges of the UPC become more aware of issues in European patent law and could result in the development of a common European mind-frame. This could have a knock-on effect. Judges of the UPC can retain positions as judges in their national court and experience gained in the

[102] Article 18 UPCA and Article 20 Statute of the Unified Patent Court.
[103] Smits and Bull, 50.
[104] For more on a European precedent see: Justine Pila, 'A Constitutionalized Doctrine of Precedent and the *Marleasing* Principle as Bases for a European Legal Methodology' in Ansgar Ohly and Justine Pila (eds), *The Europeanization of Intellectual Property Law: Towards a European Legal Methodology* (OUP 2013) 228.
[105] Brinkhof and Ohly, 212 and 213.
[106] Article 19 UPCA and Article 11 Statute of the Unified Patent Court. Training has already begun.

interpretation of substantive patent law on a UPC panel could filter into that particular judge's national decisions, thus reinforcing a European perspective.

Similar to an event that was initiated by the EPO, regular meetings of judges are also prescribed by the UPCA in order to discuss developments in patent law and to ensure the consistency of case law.[107]

Conversely, it has been argued that this kind of specialised panel could potentially lead to a very closed legal culture, predominantly focused on patents, and so a balancing act is required to ensure this does not occur.[108] Adding to this closed legal culture is the fact that dissenting opinions will only be given in exceptional circumstances.[109] It has been argued that these opinions should be more prevalent and add to the discussion to ensure an autonomous body of law.[110]

As pointed out by Smits and Bull, there a tension between the desire to have judges from many different Contracting Member States and the need for experienced judges who deliver consistent decisions.[111] This tension could result in lower quality decisions. If a panel does have to come to a compromise, this may not be comparable to the quality of the previous system.

(B) LANGUAGE OF PROCEEDINGS

Language issues are at the core of the debate on the Regulations; however, they also have a role to play in the functioning of the UPC. The language of

[107] Article 19(3) UPCA.
[108] Clement Salung Petersen, Thomas Riis, and Jens Schovsbo, 'The Unified Patent Court (UPC) in Action: How Will the Design of the UPC Affect Patent Law?' in Ballardini R, Norrgård M and Bruun N (eds), *Transitions in European Patent Law: Influences of the Unitary Patent Package* (Kluwer 2015).
[109] Article 78(2) UPCA.
[110] Petersen, Riis and Schovsbo; cf. the practice of the European Court of Human Rights where dissenting opinions are possible, prevalent and viewed by some as detrimental for various reasons.
[111] Smits and Bull, 51.

proceedings will be of major relevance to all parties concerned and could have an impact on the quality of the decisions of the Court.

According to the UPCA, the language of proceedings at a local or regional division will be one of the official languages of the Member State hosting the division.[112] Alternatively, participating Member States can designate one or more of the official languages of the EPO (English, French, or German).[113] Parties can also agree to use the language in which the patent was granted, subject to approval by the judicial panel.[114]

At the central division, the language of proceedings will be that in which the patent was granted.[115] The language used before the Court of First Instance will be used before the Court of Appeal.[116] The complicated nature of this regime is significant and apparent to certain critics. Salung Petersen and Jens Schovsbo give the following example:

> The proposal would allow a case brought in Denmark to be handled in Danish. This, however, would presuppose that the Danish judge could be joined by two Danish speaking judges from the pool. In the event of an appeal the Court of Appeal would hear the case in Danish. If, however, the case involves the issue of invalidity and that issue is brought before the central division it is the "language of the patent", which decides the language of the proceedings.[117]

[112] Article 49(1) UPCA.
[113] Article 49(2) UPCA.
[114] Article 49(3) UPCA.
[115] Article 49(6) UPCA.
[116] Article 50 UPCA.
[117] Petersen and Schovsbo, EEUPC, 21.

Although a pruning of language choice is necessary for a centralised, specialised court, containing a multinational composition of judges, it may have an undesirable effect on users, especially small and medium-sized enterprises. For some, the language of proceedings may not be one with which parties to the proceedings are familiar. Translation of documents is available in certain circumstances;[118] however, the language of proceedings will remain the same.

On an inspection of the 17th Draft of the Rules of Procedure, the Oral Hearing on the matter, and the 18th Draft of the Rules of Procedure, the situation increases in complexity. Although a clause has been inserted so that small local operations are only sued in their own language,[119] an 'English limited' clause has also been inserted.[120] This allows for the language of proceedings to be changed to English in reasonable circumstances. In such cases, the judge can change the language of proceedings, but the written decision could remain in the original language. The difference in languages throughout proceedings has been criticised as having the potential to result in confusion.[121] If decisions are being translated, technical terms could be construed differently which could result in a lack of clarity and quality. The quality of decisions is of the utmost importance and the risk of alternating languages within the same case puts this quality at risk.

VII. INSTITUTIONAL CRITICISMS

Although the UPC is a new institution, the current tribunals of the European patent system remain. The UPC will add to the number of institutions in the

[118] Article 51(3) UPCA.
[119] Preliminary set of provisions for the Rules of Procedure ('Rules') of the Unified Patent Court, 18th draft of 19 October 2015, Rule 14.
[120] Preliminary set of provisions for the Rules of Procedure ('Rules') of the Unified Patent Court, 18th draft of 19 October 2015, Rule 14.
[121] Petersen and Schovsbo, EEUPC, 21.

European patent system. It is therefore essential that the new system have a respectful working relationship with pre-existing institutions, namely the CJEU and the Boards of Appeal of the EPO, while also establishing itself.[122] Without this respect, institutional division may arise. There are strong arguments both in favour of and against the existing institutions having a role in the proposed European unitary patent system. These arguments have been highly controversial and ought to be explored further.

(A) THE COURT OF JUSTICE OF THE EUROPEAN UNION

A major issue that has been mentioned, but not yet examined in detail, is the necessity for the UPC to refer questions on EU law to the CJEU and, moreover, the role of the CJEU in relation to the UPC. The explicit lack of control over the result of an answer from a preliminary reference was, in part, a reason for the incompatibility of the EEUPC with the EU Treaties. When the UPCA was redrafted, Chapter IV entitled: 'The Primacy of Union Law, Liability and Responsibility of the Contracting Member States', took into account the main reasons for the negative ruling in Opinion 1/09.

The provisions of Chapter IV therefore ensure: the UPC's respect for the primacy of EU law;[123] its cooperation with the preliminary reference procedure to ensure the correct application and uniform interpretation of Union law;[124] its joint liability for damage caused by infringements of Union law;[125] and that its actions

[122] Jens Schovsbo, Thomas Riis and Clement Salung Petersen, 'The Unified Patent Court: pros and cons of specialization – is there a light at the end of the tunnel (vision)?' (2015) 46(3) IIC 271, 272.
[123] Article 20 UPCA.
[124] Article 21 UPCA.
[125] Article 22 UPCA.

are directly attributable to each Contracting Member State individually.[126] Following this insertion, and the dismissal of the Spanish actions against the UPP, it seems as if the UPCA is finally 'CJEU-friendly'. However, as seen above, critics of the proposed system have stated that CJEU involvement is not welcome with respect to substantive patent law and attempts were made to limit its role regarding the interpretation of such provisions.[127] The question that can now be asked is whether the CJEU is 'UPCA-friendly' or whether a division might exist between them.

The necessity for the UPC to ensure references are sent for preliminary ruling is correct for the purposes of EU law, but according to commentators, for many, it represented a major limitation on any improvement that the UPC could make in the European patent litigation sphere.[128] As mentioned above, there is a fear that the CJEU will take an over-active role in European patent law, that it will increase the length of time that cases will take at the UPC, and that it lacks the expertise necessary in a field as technical as patent law.

The CJEU is overrun with cases, especially with trade mark cases, and the need for a specialised court in that area is strongly felt as a result of the unsatisfactory quality of trade mark judgments.[129] However, it has been suggested that if there is a degree of trust between the two courts, it is possible that the CJEU might exercise judicial self-restraint.[130] The UPC, as a court of EU Member States, 'contributes to the proper application of EU law and safeguards the role of the CJEU'.[131] However, the UPCA is based on international law, and therefore the

[126] Article 23 UPCA.
[127] See: Chapter Three.
[128] Smits and Bull, 52.
[129] Ohly, Concluding Remarks, 258.
[130] Brinkhof and Ohly, 216.
[131] Angelos Dimopoulos, 'An Institutional Perspective II: The Role of the CJEU in the Unitary (EU) Patent System' in Justine Pila and Christopher Wadlow (eds), *The Unitary EU Patent System* (Hart Publishing 2014) 62.

CJEU arguably has no legal standing to review decisions reached under it;[132] nonetheless, the relationship between the courts will be of the utmost importance. The exercise of restraint could in fact become a reality; the CJEU has had numerous opportunities to obstruct the possibility of a unified patent court. In reality, it has assisted in the creation of one: the UPC – a court that is based on an agreement that is compatible with EU law.

This does not, however, deal with the fact that divisions of the UPC will have to refer questions to the CJEU: in those circumstances, the arguments against CJEU involvement remain. One problem that has been expressed, which was briefly touched upon above, is the fact that as a generalist court, the CJEU does not have the expertise necessary to deliver judgments on patent law.[133]

The reason for this critique stems from the CJEU record in patent law. Not many patent cases have been decided, but those that exist have resulted in intense controversy. For example, following the *Brüstle* ruling,[134] critics argued that by defining 'human embryo' for the purposes of the Biotech Directive, the CJEU went too far because the technicalities of the term 'human embryo' are not something on which all Member States agree.[135] The same could be said for the

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[132] Angelos Dimopoulos argues that in the post-Lisbon era, specifically after the CJEU ruling in Case C-414/11 *Daiichi Sankyo Co. Ltd, Sanofi-Aventis Deutschland GmbH v DEMO Anonimos Viomikhaniki kai Emporiki Etairia Farmakon* ECLI:EU:C:2013:520, the CJEU has the power to interpret patent provisions contained in TRIPs which could have an implication on the current attempts at patent law harmonisation. For more see: Angelos Dimopoulos, 'An Institutional Perspective II: The Role of the CJEU in the Unitary (EU) Patent System' in Justine Pila and Christopher Wadlow (eds), *The Unitary EU Patent System* (Hart Publishing 2014); Angelos Dimopoulos and Petroula Vantsiouri, 'Of TRIPs and traps: the interpretative jurisdiction of the Court of Justice of the EU over patent law' (2014) 39(2) EL Rev 210; Case Comment, 'ECJ finds TRIPs within sole competence of EU' [2013] 311 EU Focus 12; and Tuomas Mylly, 'A Constitutional Perspective' in Justine Pila and Christopher Wadlow (eds), *The Unitary EU Patent System* (Hart Publishing 2014) 77-110.

[133] As expressed by Smits and Bull, 52.

[134] Case C-34/10 *Oliver Brüstle v Greenpeace e.V.* ECLI:EU:C:2011:669.

[135] Council Directive 98/44/EC of the European Parliament and of the Council of 6 July 1998 on the legal protection of biotechnological inventions [1998] OJ L 213/13 (Biotech Directive). For criticisms on the *Brüstle* ruling, see: Shane Burke, 'Interpretative clarification of the concept of "human embryo" in the context of the Biotechnology Directive and the implications for patentability: Brüstle v Greenpeace eV (C-34/10)' (2012) 34(5) EIPR 346; Scott Parker and Paul England, 'Where now for stem cell patents?' (2012) 7(10) EIPR 738; and Ansgar Ohly, 'European Fundamental Rights and Intellectual Property' in Ansgar Ohly and Justine Pila

Monsanto[136] decision on modified genes in plants, limiting the scope of patentability in the area. The lack of expertise of the CJEU is said to have been the cause of these issues in patent law judgments. However, many commentators argue the opposite. For example, it is said that the generalist nature of the CJEU is what is necessary in patent law in order to ensure that not only patent rights are taken into account, but also fundamental rights:

> Patent law does not belong exclusively to the worlds of commerce, industry, and technology, but rather has other social and cultural dimensions which must be considered by the legislature and courts when developing and applying it.[137]

The advocates of this argument take the view that the UPC could become too specialised. According to Rochelle Dreyfuss, an emphasis on experienced patent judges, experts in all fields of technology, and training for those who are not experts, may actually have a negative effect on the ability of the UPC to see patent law in context, and not as the 'be all and end all' of issues.[138] Furthermore, a bias may develop towards technology-based values as a result of this highly specialised judiciary. There is also the possibility that there will be a lack of consideration for fundamental rights such as human dignity, health, and welfare. A 'tunnel-vision' or 'closed pro-protection perspective' might emerge, wherein all

(eds), *The Europeanization of Intellectual Property Law: Towards a European Legal Methodology* (OUP 2013).

[136] Case C-428/08 *Monsanto Technology v Cefetra* ECLI:EU:C:2010:402.

[137] Justine Pila, 'A Constitutionalized Doctrine of Precedent and the *Marleasing* Principle as Bases for a European Legal Methodology' in Ansgar Ohly and Justine Pila (eds), *The Europeanization of Intellectual Property Law: Towards a European Legal Methodology* (OUP 2013) 228.

[138] Dreyfuss, International Perspective, 157.

UPC judgments are based on pure substantive patent law, without regard for law in general.[139]

This problem could apparently be remedied quite efficiently by the CJEU, which bolsters the argument that it is necessary for the UPC to respect and use this institution to its benefit. Some commentators have compared the situation to that in the US.[140] The Supreme Court of the US, acting as Court of Appeal in patent matters, puts an emphasis on common sense and views issues that come before it in a broader and more general perspective than the Federal Circuit.[141] This has arguably brought patent cases into line and back from the extreme specialisation towards which they were headed.

As pointed out by Alain Strowel and Hee-Eun Kim, the CJEU case law highlights the need for a balance between intellectual property rights and other interests.[142] While it is admitted by some that the *Brüstle* judgment went too far, proponents of its involvement suggest that the CJEU was correct in taking constitutional values into account[143] and that there can be 'no doubt' that the courts must take account of these fundamental rights.[144] In general, other EU principles need to be taken into account and, in a reversal of the argument above, it is argued that specialised courts will not (necessarily) have the expertise to do so adequately.

Observers have suggested that these interests, embedded in the Treaties, are and should be shaping core issues of intellectual property through

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[139] Ohly, Concluding Remarks, 264; and Schovsbo, Riis and Petersen, Tunnel Vision, 273.
[140] Dreyfuss, International Perspective, 157.
[141] Petersen and Schovsbo, EEUPC, 11.
[142] Alain Strowel and Hee-Eun Kim, 'The Balancing Impact of General EU Law on European Intellectual Property Jurisprudence' in Ansgar Ohly and Justine Pila (eds), *The Europeanization of Intellectual Property Law: Towards a European Legal Methodology* (OUP 2013) 122.
[143] Ansgar Ohly, 'European Fundamental Rights and Intellectual Property' in Ansgar Ohly and Justine Pila (eds), *The Europeanization of Intellectual Property Law: Towards a European Legal Methodology* (OUP 2013) 159.
[144] Ohly, Fundamental Rights in IP, 146.

proportionality, a trend that should be applauded.[145] It has therefore been suggested that the CJEU is better equipped to interpret these provisions and should maintain a generalist role over the UPC.[146]

Overall, there have been strong arguments made both against and in favour of the role that the CJEU could play alongside the UPC by many commentators – on the one hand that a specialist court is necessary to deal with the technical nature of patent law, and on the other hand that patent law cannot be defined restrictively, without balancing all rights concerned.[147] From the latter point of view, limiting the role of the CJEU would be highly problematic and effectively create a patent system that is highly specialised and pro-patent, but could possibly be against everything else. However, from the former perspective, allowing further CJEU involvement risks diluting substantive patent law in Europe.

(B) THE EUROPEAN PATENT OFFICE

Not only has the relationship between the UPC and the CJEU been debated, so too has the relationship between the UPC, the EPO, and its Boards of Appeal. Whether there will be a relationship at all is entirely questionable.

All patent law judges meet every two years at the European Patent Judges' Symposia to discuss developments in patent law and recent decisions. This kind of understanding and respect between judges and members of the Boards of Appeal of the EPO will be even more important if the UPC is established because, once implemented, there will be two highly specialised patent law judiciaries at

[145] Strowel and Kim, 142.
[146] Justine Pila, 'An Historical Perspective I: The Unitary Patent Package' in Justine Pila and Christopher Wadlow (eds), *The Unitary EU Patent System* (Hart Publishing 2014) 21.
[147] Pila, Historical Perspective, 23.

European level.[148] The importance of sharing respect towards one another's decisions and methods of interpretation of the law is the resulting consistency, without which divergent interpretations of substantive patent law will persist.

However, this mutual respect is not mandated. The EPO and UPC are independent and are not obliged to follow each other's opinions. A harmonised approach is desirable and necessary; however, starkly divergent opinions may still arise. This could be exacerbated if the CJEU were to take an over-active role in the UPC, delivering judgments binding on Member States of the EU but not on those of the EPO which are not Member States of the EU.[149]

Institutional division is nothing new in patent law. In the highly controversial area of morality and *ordre public*, the EPO and the CJEU have interpreted substantive patent law provisions inconsistently in the past.[150] It has been stated that the institutional bias that pre-exists at the UPC, given its formal tie to the CJEU, may lead the Court down that same path, developing a practice that is critical towards the decisions of the Boards of Appeal of the EPO.[151] The suggested way forward is for the UPC to be aware of these possible biases and to take that into account when delivering judgments.[152]

It is relevant to note a statement from Benoît Battistelli, the president of the EPO, at the Legal Affairs Committee of the European Parliament in October 2011:

> First of all, I would like to recall that, contrary to widespread opinion, granting decisions of the European Patent Office can, even if they have been confirmed by the Boards of Appeal of the Office, be

[148] Luginbuehl, 55 and 56.
[149] Luginbuehl, 55.
[150] See Chapter Eight for a detailed discussion of the *WARF* case and the *Brüstle* case.
[151] Petersen, Riis and Schovsbo, UPC, 22.
[152] Petersen, Riis and Schovsbo, UPC, 22.

> challenged in the national courts. And these national courts currently have the option to direct to the European Court of Justice a referral question. By this I want to emphasise that we do not stand outside the European Union legal order, although the European Patent Office is not an EU institution. Due to the actual realities and mechanisms and due to the fact that twenty-seven of our Members are, at the same time, part of the European Union, we are nonetheless integrated into the legal framework defined by the EU.[153]

It has been suggested by Stefan Luginbuehl that the implementation of the UPC could reopen the question of whether the EPO and its Boards of Appeal should be integrated into the EU system, raising some very difficult decisions for Contracting States to the EPC who are not a part of the EU.[154] Notwithstanding, there must be a working relationship between the judges of all patent law courts and boards in order to strive for consistency in judgments, as well as to make clear any differences and the reasons for them.

VIII. ECONOMIC CRITICISMS

The prohibitive cost of the current systems of patent protection across Europe has been a driving force behind a unitary patent and unified patent court system. The

[153] Minutes of the Meeting are available at: <http://www.europarl.europa.eu/meetdocs/2009_2014/documents/juri/pv/880/880889/880889en.pdf> accessed 30 September 2016. A video recording was available at: <http://www.europarl.europa.eu/ep-live/de/committees/video?event=20111011-1500-COMMITTEE-JURI>.

[154] Luginbuehl, 56.

cost of patent litigation in Europe is extortionate in certain Member States.[155] The UPC aims to reduce these court fees.

For the best part of the duration of the negotiations, deliberations, and even acceptance of the UPCA, the specific costing of the unitary patent package was never disclosed or in fact decided. In 2015, over two years after the official signing of the UPCA, the Preparatory Committee of the Unified Patent Court launched a consultation on court fees with two options for consideration.[156] The Court is to be self-financing[157] and therefore high initial costs were expected. However, concerns have been raised that the UPC will be 'prohibitively expensive', not only in terms of court fees, but also because its structure involves various divisions and training, mediation and arbitration facilities, all of which will increase the cost for the user.[158]

The availability of Patent Mediation and Arbitration[159] may be of advantage here. Centres are to be set up in Ljubljana and Lisbon to deal with patent disputes out of court, which could have the effect of a reduction in costs. The only disadvantage expressed is that a patent cannot be revoked or limited in the process. Overall, it is believed that the new centre will be advantageous to the European patent field.

Of further concern, however, is the eventual debtor of these initial costs. As mentioned above, to enter into force, the UPCA only requires the ratification of thirteen Contracting Member States (including France, Germany and the UK). If

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[155] According to a study undertaken by Christian Helmers and Luke McDonagh, the costs involved in litigating in the UK are between one million and six million pounds: Christian Helmers and Luke McDonagh, 'Patent Litigation in the UK' Law Society Economy Working Papers 12/2012 <https://www.lse.ac.uk/collections/law/wps/WPS2012-12_Mcdonagh.pdf> accessed 30 September 2016.

[156] Document available at: <https://www.unified-patent-court.org/sites/default/files/UPC_Court_Fees_and_Recoverable_Costs_Consultation_Document_FINAL.pdf> accessed 30 September 2016.

[157] Article 36 UPCA.

[158] Xenos, 265.

[159] Article 35 UPCA.

this occurs, a question arises as to whether these States will bear the initial financial burden, allowing the remaining States to ratify when the financial risk is lower. This may be the case. According to Article 37(2) UPCA:

> On the date of entry into force of this Agreement, the Contracting Member States shall provide the initial financial contributions necessary for the setting up of the Court.

From the date of entry into force of the Agreement, Contracting Member States will no longer imply those that have signed the UPCA. The Contracting Member States will, from that point, be those who have ratified the UPCA. Cost will be of major concern to all parties and further economic analysis is necessary in order to ensure that the UPCA will be advantageous. The cost of the UPC could have a significant impact on who will use the system.

IX. CONCLUSION

The UPCA has proven to be just as controversial as the Regulations. The critics of the system have highlighted numerous concerns regarding the implementation of the UPCA and the functioning of the UPC. The UPCA has been criticised for its limited membership and its ratification procedure, as well as its provisions on the transitional period. The procedural features of the UPC have also been criticised and it has been argued that the involvement of current institutions will have a limiting effect on the potential of the UPC.

These are not the only criticisms of the UPCA.[160] Other concerns have been raised such as those relating to the increased amount of forum shopping that will result from the structure of the UPCA, and that this new system will make it more feasible for patent assertion entities to operate in the European patent system. However, those that have been discussed are the criticisms that are the most important to the UPP moving forward. Furthermore, the underlying theme of these concerns is that the rather than unifying the patent system in Europe, the UPP will serve to further fragment it.

Concerns regarding the limited membership of the UPC reflect concerns with fragmentation because those outside the UPC will be subject to different laws and court systems than those participating in the UPC. At present, the membership of the UPC is limited to EU Member States only. Therefore, the UPP will have effect in twenty-eight Member States at most.

Furthermore, not even all EU Member States are currently participating in the UPP. Spain has criticised the system extensively, making its participation unlikely. It has been argued that the effect of not having a full set of UPCA signatures could result in limited membership and having to address a Spanish and Polish court separately, increasing fragmentation by introducing a new system that fails to cover all EU Member States.

The process of ratification has also been criticised because only thirteen Member States (including France, Germany and the UK) are required to ratify the UPCA before it enters into force. Therefore, a situation could arise wherein the UPCA is ratified and only applicable in thirteen Member States. Again, different laws will be applicable to different Member States, causing fragmentation.

[160] Reto M. Hilty, Thomas Jaeger, Matthias Lamping and Hanns Ullrich, 'The Unitary Patent Package: Twelve Reasons for Concern' [2012] Max Planck Institute for Intellectual Property & Competition Law Research Paper No. 12-12 <http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2169254> accessed 30 September 2016.

Membership may increase over time, however, if this is a stagnated process, some unitary patents will exist for thirteen Member States, some for fifteen Member States, and so on. Additionally, the ability of Member States to individually decide when it will become bound by the UPP increases the fragmented nature of the system by making the community of participating Member States difficult to identify at any particular point.

The main criticisms relating to jurisdiction concern the related provisions of the transitional period of the UPCA. Over a seven-year period, both the UPC and national courts will have jurisdiction. There is the possibility that the same case could be brought before the national courts and the UPC. If this proves to be true and proceedings at one court are not stayed, divergent decisions could arise.

The competence of the Court is quite extensive and most matters will be judged to fall therein; however, some matters are left to national law. Having national law apply in certain areas will result in a number of different national laws applying to a number of different situations, thus fragmenting the system rather than unifying it.

During the transitional period of seven years a European patent-holder has the possibility to opt out of the exclusive competence of the UPC. The effect of numerous opt-outs may cause significant initial cost to those remaining within the competence of the UPC, and may also confuse the market if different patents are opted in and opted out of the system.

Concerns relating to the introduction of bifurcation to the European patent system may also relate to an increase in fragmentation. If used, different court divisions will be responsible for the outcome of the same case causing a kind of institutional fragmentation within a case. This could also result in legal uncertainty.

An institutional fragmentation problem already exists in Europe, as evidenced by the volume of existing courts that interpret substantive patent law in different ways, resulting in divergent decisions. The UPC will add to the number of institutions in the European patent system, thus increasing fragmentation, risking further possible divergence.

The problems that have arisen regarding the cost of the proposed system could also lead to fragmentation. If the costs of the court are too high, only large companies that can afford it will use the system. The result may lead to an increase in fragmentation by limiting the integrative effects of the UPP to only certain patentees or specific areas.

The proposed system builds upon rather than replaces the current domestic and supranational patent systems in Europe; the unitary patent system will only apply in a subset of EU Member States, with the identity of those states potentially changing frequently; the Agreement will add another specialist patent institution into the European patent system; depending on the ratification process (and Brexit), not only will the proposed system add another legislative and institutional layer, further layers may be added following subsequent ratifications; and finally, the jurisdiction and competence issues surrounding the transitional period may allow for duplicated cases with potentially divergent results.

Overall, it can be concluded that the most important criticisms of the UPCA reflect a concern that rather than unifying the European patent system, the package will serve to further fragment it. The aim of the unitary patent system is to unify the European patent field. However, most critics of the proposed system identify the complete opposite, that the UPP will increase the fragmentation of the European patent system, and further, that this is a shortcoming of the system. Indeed, the conclusion drawn here in relation to both the Regulations and the

UPCA, is that the proposed system will likely increase the existing fragmentation in the European patent system, however, whether it will be a shortcoming of the system can and will be questioned.

CHAPTER FIVE: A CONTEXTUAL THEORY OF FRAGMENTATION

I. INTRODUCTION

For over forty years, attempts to reform the European patent system have focused on the goals of integration, and harmonisation or unification. Although successful to a certain extent, the results have also included differentiation and fragmentation. Critics have seen the fragmentation of the European patent system in a predominantly negative light. As evidenced from the previous chapter, new attempts to unify the patent system are likely to cause further fragmentation in the European patent field and the arguments that have been raised by critics suggest that this effect will be highly detrimental to the European patent system and to European patent law more generally.

However, whether fragmentation is as detrimental for the European patent system as suggested can, and should, be questioned. The starting point for doing so must be the concept of fragmentation itself. Hence the aim of this chapter, which is to offer a theoretical analysis of fragmentation as a feature of supranational law making and legal systems. Drawing on jurisprudence from international law, in which fragmentation is inherent, it will be asked whether critics of the proposed European unitary patent system are right to focus on its fragmenting effects, and to the extent that they do so, to cast fragmentation in an entirely negative light.

II. TERMINOLOGY

The European patent system and the aims of its attempted reforms have been described in numerous ways. For example, there have been descriptions of efforts

to *unify*, *harmonise*, and *integrate* the European patent field.[1] It has been said that the system is currently *fragmented* and *flexible*, an example of *pluralism* and *differentiation*.[2] These terms have quite different implications. Before embarking on a theoretical analysis of fragmentation, and an in-depth investigation as to what is meant by fragmentation in the context of the European patent system, it is necessary to understand what is understood when using these terms and how they are distinguished from one another in the context of this thesis.

In the efforts to further develop the European patent system, considerable focus has been placed on unification. For the purpose of this thesis, unification can be described as the process of introducing a single patent title and patent system for Europe, to the exclusion of all other national and European systems. Unification involves the replacement of all patent systems in Europe into a single European patent system that deals with all aspects of substantive European patent law and enforcement.[3] For example, rather than having thirty-eight national patent laws implementing and enforcing the European Patent Convention (EPC),[4] itself incorporating the central European Union (EU) Directive concerning patent law matters,[5] one law would exist for all of Europe, not solely the EU. It would be

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1 In general, see: Christopher Wadlow, 'Strasbourg, the forgotten patent Convention, and the origins of the European patents jurisdiction' (2010) 41(2) IIC 123; Justine Pila, 'The European patent: an old and vexing problem' (2013) 62(4) ICLQ 917; Michael LaFlame, Jr, 'The European Patent System: An Overview and Critique' [2010] 32 Houston Journal of International Law 605; Hanns Ullrich, 'Patent Protection in Europe: Integrating Europe into the Community or the Community into Europe?' (2002) 8(4) European Law Journal 433.

2 In general, see: Bruno Van Pottelsberghe, 'Lost Property: the European patent system and why it doesn't work' [2009] Bruegel Blueprint Series, Volume IX <http://bruegel.org/2009/06/lost-property-the-european-patent-system-and-why-it-doesnt-work/> accessed 30 September 2016; on a European perspective of Robert Merges, *Justifying Intellectual Property* (Harvard University Press 2011), see Justine Pila, 'Pluralism, Principles and Proportionality in Intellectual Property' (2014) 34(1) Oxford Journal of Legal Studies 181; on Harmonisation versus Differentiation, see Nikolaus Thumm, *Intellectual Property Rights – National Systems and Harmonisation in Europe* (Springer-Verlag 2000) Chapter 5.

3 This view is shared by authors such as: R.H. Graveson, 'The International Unification of Law' (1968) 16(1) The American Journal of Comparative Law 4.

4 Convention on the Grant of European Patents of 5 October 1973 (European Patent Convention) (EPC).

5 Council Directive 98/44/EC of the European Parliament and of the Council of 6 July 1998 on the legal protection of biotechnological inventions [1998] OJ L 213/13 (Biotech Directive); cf Council Regulation (EC) 469/2009 of the European Parliament and of the Council of 6 May

necessary for all European nations, including non-EU nations, to abide by this law and to implement and interpret it accordingly.

The European patent system is not unified. As previously examined, numerous European patent systems exist and the patentee has an option as to which system to use. The patentee can decide between these options, the existence of this choice highlighting the fact that unification has not been achieved. A unified system would reduce the risk of differing examination standards and divergent outcomes in patent litigation, thereby ensuring efficiency, legal certainty and fairness between litigating parties. However, it would not take into account the social, economic or cultural diversity that exists between national states. It can be argued that it is for this reason, namely, the impact of a unified patent system on the sovereignty and diversity of European states, that a unified patent system has not been successful. Consequently, the European patent system has come to be harmonised rather than unified, even for the twenty-eight Member States of the EU.

Harmonisation, for the purpose of this thesis, is the approximation rather than the assimilation of laws.[6] Harmonisation is understood as the process of creating common standards in the laws of various states through various agreements and having national Member State courts interpret European provisions in a consistent manner, sometimes with the support of a supranational tribunal. The result is minimum standards that also take into account varying national cultures and values. If harmonisation is taken far enough, unification may result.

2009 concerning the supplementary protection certificate for medicinal products (codified version) [2009] OJ L 152/1 and Council Regulation (EC) 1610/96 of the European Parliament and of the Council of 23 July 1996 concerning the creation of a supplementary protection certificate for plant protection products [1996] OJ L 198/30.

6 This view is shared by authors such as: Walter Van Gerven, 'Harmonisation Within and Beyond' in Martijn van Empel (ed), *'From Paris to Nice' Fifty Years of Legal Integration in Europe* (Kluwer Law International 2003); and Walter Kamba, 'Comparative Law: A Theoretical Framework' (1974) 23(3) ICLQ 485, 501.

The field of intellectual property, specifically copyright law, is familiar with the concept of harmonisation. Numerous directives have been put into place by the EU with the aim of bringing together the domestic laws of Member States in order to have a consistent and coherent copyright law amongst them. However, recent arguments have emerged which have called for the unification of these laws in order to promote legal certainty. Bernt Hugenholtz claims that the directives implemented in the European copyright field have created a measure of uniformity between the laws of Member States; however, he argues that despite extensive harmonisation, copyright law will remain fragmented until a unified European copyright law is introduced – one that consolidates the existing body of harmonised copyright law.[7]

In the context of the European patent system, the situation is similar. However, there is one major difference. In the realm of copyright law, most harmonisation measures have taken place under the auspices of the EU. In the European patent field however, harmonisation has been achieved through international treaties and conventions, as well as EU Directives. An example of such a non-EU harmonisation measure is the EPC. As noted previously, its provisions apply to all thirty-eight current Contracting States, who are to apply this law in a consistent manner in order to ensure certain minimum standards across Europe. However, the EPC does not cover all aspects of patent law, and Contracting States retain their autonomy and give priority to national law. For example, issues on post-grant matters are for national court systems to decide. When considering the European patent system, account must be taken not only of EU Member States, but also European countries that are party to the international agreements involved (such as the Paris Convention and the Strasbourg

[7] Bernt Hugenholtz, 'Harmonisation or Unification of European Union Copyright Law' (2012) 38(1) Monash University Law Review 4.

Convention[8]) and the EPC. This involvement of EU and non-EU states in the existing European patent system immediately creates an issue for further harmonisation initiatives.

Whether through unification or harmonisation, all reforms of the European patent system, both attempted and successful, have had the aim of promoting integration. Integration is a distinct legal process. It concerns the development of a closer Europe, which is achieved through the harmonisation and unification of national Member State laws.[9] For the purpose of this thesis, integration is understood as the process of cooperating and compromising amongst European nations on certain policies and laws in order to promote peace and prosperity. In the context of the EU, its aim is more specifically to promote free movement and fundamental rights protection, as well as the other aims of the EU outlined in its Treaties.[10] Integration deals with the process of bringing Europe together, including promoting the internal market. There are many different theories of integration.[11] These will not be discussed; although, it can be noted that integration on the EU level has been achieved not only by the Treaties and EU legislation, but also by the Court of Justice of the European Union (CJEU) in its interpretation of them.[12] As Karen Alter has pointed out, it is 'not simply the issuing of legal decisions which create new doctrine, but more importantly the

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8 Convention for the Protection of Industrial Property 1883 (Paris Convention); Convention on the Unification of Certain Points of Substantive Law on Patents for Invention 1963 (Strasbourg Patent Convention).

9 Desmond Dinan, *Ever Closer Union* (4th edn, Palgrave Macmillan 2010).

10 For more on European integration see: Desmond Dinan, *Ever Closer Union* (4th edn, Palgrave Macmillan 2010).

11 Karen Alter, 'Explaining National Court Acceptance of European Court Jurisprudence: A Critical Evaluation of Theories of Legal Integration" in Anne-Marie Slaughter, Alec Stone Sweet and J.H.H. Weiler (eds), *The European Courts and National Courts – Doctrine and Jurisprudence* (Hart Publishing 1998) 229.

12 Anne-Marie Burley (Slaughter) and Walter Mattli, 'Europe before the Court: A Political Theory of Legal Integration' (1993) 47(1) International Organization 41.

acceptance of this jurisprudence within national legal systems and by national politicians'.[13]

Unification and harmonisation are tools that can be used to reach goals of European integration; however, they are not the only methods. Although often conceived as having aims opposite to that of unification and harmonisation,[14] methods such as differentiation, also known as flexibility measures, variable geometry, multi-speed Europe etc., can also promote integration, albeit in a different manner.

Differentiation, in the context of this thesis, is understood as a further potential mechanism of integration. During the legislative process, it allows differences between Member States for the purpose of achieving deeper integration among a participating group, with the expectation that those non-participating states will eventually align their laws to the common framework. This has also been called differentiated integration. For some, such as Deidre Curtin, this process undermines the cohesiveness and unity of the Community order.[15] Others, such as Bruno de Witte, Dominik Hanf and Ellen Vos give the following meaning to differentiation:

> [T]he facilitation or accommodation of a degree of difference between Member States or regions in relation to what would otherwise be common Community or Union policies. Differentiation, so defined, is much broader than the 'enhanced cooperation' mechanism…The view that emerges … is, in fact, that differentiation may be the opposite of

[13] Karen Alter, 'Explaining National Court Acceptance of European Court Jurisprudence: A Critical Evaluation of Theories of Legal Integration" in Anne-Marie Slaughter, Alec Stone Sweet and J.H.H. Weiler (eds), *The European Courts and National Courts – Doctrine and Jurisprudence* (Hart Publishing 1998).

[14] Deidre Curtin, 'The Constitutional Structure of the Union: A Europe of Bits and Pieces' [1993] 30 CML Rev 17.

[15] Curtin, 67.

> *uniformity*, but that it may well – if handled with care – actually strengthen European *unity*.[16]

In the context of the proposed European unitary patent system, the use of the enhanced cooperation procedure is a method of integration by differentiation. This mechanism allows Member States of the EU to progress with deeper integration amongst those Member States that are willing or able to do so at the time. This gives rise to a degree of flexibility for Member States to join the integration process when they are able and willing to do so. Differentiation allows for flexibility, which in turn assists with substantial progress being achieved, relative to the stagnation that would otherwise occur. This is the reason that differentiation has been equated with 'integration by parts'.[17]

Another distinct concept that has emerged, seen as a possible justification for the European patent system, is that of pluralism. In general terms, legal pluralism may be described as 'the presence in a social field of more than one legal order in which law and legal institutions are not subsumable within one system but have various sources';[18] or, in Nicholas Barber's formulation, a system that 'contains inconsistent rules of recognition that cannot be legally resolved from within the system'.[19] These descriptions could be and have been applied to the European patent system.[20] If the European patent system is accepted and supported as a pluralist legal system, it must be conceded that it never will be a

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16 Bruno de Witte, Dominik Hanf and Ellen Vos, 'Introduction' in Bruno de Witte, Dominik Hanf and Ellen Vos (eds), *The Many Faces of Differentiation in EU Law* (Intersentia, 2001) xii.

17 de Witte, Hanf and Vos, Introduction.

18 John Griffiths, 'What is legal pluralism?' (1986) 24(1) Journal of Legal Pluralism 55.

19 Nicholas Barber, 'Legal Pluralism and the European Union' (2006) 12(3) ELJ 306.

20 For more on a pluralistic approach to IP see: Robert Merges, *Justifying Intellectual Property Law* (Harvard University Press 2011); David Resnik, 'A Pluralistic Account of Intellectual Property' (2003) 46(4) Journal of Business Ethics 319; and Justine Pila, 'Pluralism, Principles and Proportionality in Intellectual Property' (2014) 34(1) Oxford Journal of Legal Studies 181.

unified system. Therefore, any divergence that exists will be an inherent and intended feature of the system.

This is not, however, the view that is taken of the European patent system currently. Instead, the system is overwhelmingly described as fragmented. This description is moreover intended as a criticism. However, is this pejorative view of legal fragmentation in the European patent field justified? What exactly is a fragmented system, and how does it differ from a pluralist system of the type that international legal scholars tend to support?

III. A THEORY OF FRAGMENTATION

In the context of the European patent system, fragmentation may be described as the result of the existence of numerous different patent laws and patent systems in Europe. As discussed previously, there are currently three patent systems in Europe. The proposed European unitary patent system will be the fourth. Each system applies different laws and each system is governed by different institutions. The existence of such differences, which has led to divergent interpretations of substantive law among European states, is why some critics of the European patent system view fragmentation in a negative light.[21] However, whether fragmentation has been presented appropriately in the European patent field may be questioned. It is therefore necessary to delve deeper into the meaning of fragmentation, and to ask whether critics are justified in portraying it as a negative feature of the European patent system, both current and proposed.

International law is made up of different rules and various institutions, having never experienced a single global legislature or appellate court to

[21] As outlined above in Chapters Three and Four.

implement a uniform body of law applicable internationally – as a result, there is no generally agreed hierarchical order that exists to resolve disputes between differing norms and institutions.[22] The absence of such hierarchy, coupled with the expansion and proliferation of laws, tribunals, and institutions at the international level, has increased interest in the nature and effects of fragmentation in the field of international law in the last decade.

A vast amount of scholarship therefore exists in this area, enabling the effect of fragmentation within the patent sphere to be considered from an alternative perspective. The following analysis will take advantage of this by drawing on relevant jurisprudence from international law in order to develop a theoretical base for the purpose of this thesis. Considering that many similarities can be said to exist between the international legal system and the European patent system,[23] the concepts and arguments used to analyse fragmentation in international law can be used to support an analysis of fragmentation in the European patent system. Specifically, since the European patent system is also made up of different norms and various institutions, methods developed in the similar context of international law could prove useful in determining the cause, nature and effect of fragmentation in that area.

(A) FRAGMENTATION IN INTERNATIONAL LAW

The following characteristics have been attributed to the concept of fragmentation in international law in various circumstances:

[22] Margaret A Young, 'Introduction: The Productive Friction between Regimes' in Margaret A Young (ed), *Regime Interaction in International Law: Facing Fragmentation* (Cambridge University Press 2015) 2.Some courts have attempted to instil a hierarchy, for example, the CJEU has stated that it cannot review UN decisions, see: Joined Cases C-584/10 P, C-593/10 P and C-595/10 P *Commission and Others v Kadi* ECLI:EU:C:2013:518.

[23] This is supported by scholars such as: Graeme Dinwoodie, 'Diversifying Perspectives of the International Intellectual Property System' in Christophe Geiger (ed), *The Intellectual Property System in a Time of Change: European and International Perspectives* (Lexis Nexis 2016).

The uneven normative and institutional development and evolution in inter-state trade;[24]

The differences in the understanding and application of international legal principles between states;[25]

Conflicting norms between regimes;[26]

Normative or institutional conflicts;[27]

The increased proliferation of international regulatory institutions and ambiguous boundaries;[28]

A largely harmless side effect of the institutional expression of political pluralism internationally;[29]

A product of a calculated effort on the part of powerful states to protect their dominance;[30]

An ephemeral reflection of a more fundamental, multi-dimensional fragmentation of global society itself;[31]

A legal reproduction of collisions between the diverse rationalities within a global society;[32]

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[24] Margaret A Young, 'Fragmentation' in Tony Carty (ed), *Oxford Bibliographies in International Law* (Oxford University Press 2014) 1.

[25] Andrew Moravcsik, *The Choice for Europe: Social Purpose and State Power from Messina to Maastricht* (Cornell University Press 1998).

[26] Margaret A Young, 'Regime Interaction in Creating, Implementing and Enforcing International Law' in Margaret A Young (ed), *Regime Interaction in International Law: Facing Fragmentation* (Cambridge University Press 2015) 85.

[27] Tomer Broude and Yuval Shany, 'The International Law and Policy of Multi-Sourced Equivalent Norms' in Tomer Broude and Yuval Shany (eds), *Multi-Sourced Equivalent Norms in International Law* (Hart Publishing 2011) 12.

[28] Eyal Benvenisti and George W Downs, 'The Empire's New Clothes: Political Economy and the Fragmentation of International Law' (2007) 60(2) Stanford Law Review 595, 596.

[29] Benvenisti and Downs citing Martti Koskenniemi and Päivi Leino, 'Fragmentation of International Law? Postmodern Anxieties' [2002] 15 Leiden Journal of International Law 553, 553.

[30] Benvenisti and Downs, 597.

[31] Andreas Fischer-Lescano and Gunther Teubner, 'Regime-Collisions: The Vain Search for Legal Unity in the Fragmentation of Global Law' [2004] 25 Michigan Journal of International Law 999, 1004.

[32] Fisher-Lescano and Teubner, 1017.

Conflicting and incompatible rules, principles, rule-systems and institutional practices;[33]

Conflicts between substantive bodies of law such as trade law and environmental law;[34]

Two courts seized of the same issue rendering contradictory decisions;[35]

A significant divergence in the reasoning on the same/similar legal issue or in relation to the same/similar factual scenario;[36]

The institutional variety in the absence of hierarchical coordination;[37]

The lack of institutional body on the international level;[38]

The evolution of institution-specific secondary norms to revise international agreements;[39]

The existence of separate norms and institutions, instigated by non-identical groupings of states, often in response to specific functional issues;[40]

Despite the numerous variations in descriptions of fragmentation by international law scholars, some generalities can be deduced. Fragmentation is understood as being mostly based on divergence, be it due to the existence of divergent rules or norms, or different regimes or institutions. In the eyes of some international law

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33 International Law Commission, 'Fragmentation of International Law: Difficulties arising from the diversification and expansion of International Law: Report of the Study Group of the International Law Commission, finalised by Martti Koskenniemi' [2006] A/CN.4/L.682, 14, para 14.

34 Philippa Webb, *International Judicial Integration and Fragmentation* (OUP 2013) 5.

35 Webb, 6.

36 Webb, 6.

37 Michael Zürn and Benjamin Faude, 'On Fragmentation, Differentiation, and Coordination' (2013) 13 (3) Global Environmental Politics 119, 119.

38 International Law Commission Report, 10, para 5.

39 International Law Commission Report, 10, para 6.

40 Young, Bibliography, 1.

scholars and international relations scholars, it leads to institutional variety, such as divergent decisions, as a result of the absence of hierarchical coordination.[41]

In the international law context, various factors have been held to be responsible for fragmentation – factors that can also be evidenced in the context of the European patent system. These include, for example: the multiplicity of international regulations; increasing political fragmentation; and the specialisation of international regulations.[42] The proliferation of courts and tribunals has also been portrayed as a reason for increased fragmentation in the field of international law.[43] Different norms and institutions have developed independently from one another, often originating within 'semi-isolated "regimes", with conflicts resolved by specialised courts and tribunals'.[44] A regime has been described as:

> [A] union of rules laying down particular rights, duties and powers and rules having to do with the administration of such rules, including in particular rules for reacting to breaches.[45]

Margaret A. Young has found that the scholarly literature on regimes focuses 'on disparate sets of norms, decision-making procedures, and organisations that have developed to address functional issue areas', and that this scholarship seeks to understand how regimes take each other into account in the case of a dispute, as well during law making and implementation.[46]

Traditional fragmentation in the context of international law focuses on differing competing rules (for example, trade and the environment); however,

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41 Zürn and Faude, 119.
42 Gerhard Hafner, 'Pros and Cons Ensuing from Fragmentation of International Law' [2004] 25 Michigan Journal of International Law 849, 849 and 850.
43 Young, Bibliography, 1.
44 Young, Bibliography, 1.
45 Fischer-Lescano and Teubner, 1013.
46 Young, Bibliography, 2.

studies have also been conducted regarding competing equivalent norms, which will be considered further below.[47]

A common theme arising from this discussion of the foundations and explanations of fragmentation in international law is that there are numerous risks involved. These risks include conflicts between different norms and institutions, including courts and tribunals; as well as the possibility of divergent interpretations of substantive law.

One of the many questions therefore posed by fragmentation in general, and considered by this thesis, is whether the consistent development of law in a specific area is threatened by an abundance of laws and tribunals in that area.

(B) RESPONSES TO FRAGMENTATION IN INTERNATIONAL LAW

The answer to this question lies in the ways in which the international community have responded to fragmentation and its growth in the area. The International Law Commission (ILC), in its report and conclusions on fragmentation, identified a number of different methods by which fragmentation ought to be (and is) dealt with.[48] Young, too, has identified certain mechanisms for countering its perceived negative effects. These include: the use of interpretative methods as those enshrined in Article 31 and 32 of the Vienna Convention;[49] conflict rules such as *lex specialis* and *lex posterior*; giving priority to particular relations of importance, including *jus cogens* and *obligations erga omnes*; and using the

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47 Tomer Broude and Yuval Shany (eds), *Multi-Sourced Equivalent Norms in International Law* (Hart Publishing 2011).

48 International Law Commission Report and International Law Commission, 'Conclusions of the work of the Study Group on the Fragmentation of International Law: Difficulties arising from the Diversification and Expansion of International Law' (2006) 2(2) Yearbook of the International Law Commission.

49 Vienna Convention on the Law of Treaties (Vienna, 23 May 1969, 1155 UNTS 331) (Vienna Convention).

principle of systemic integration.[50] With regards to substantive law, generalist legal regimes compete with more specialised regimes, which has required the use of rules such as *lex specialis*,[51] or *lex posterior*. Numerous laws, whether general or specific, can apply to the same factual issue, creating friction that may lead to divergent interpretations of substantive law depending on which law is used in which circumstance.[52] International law has seen an increase in institutional fragmentation that has strengthened the role of specialist regimes, which has given rise to concerns over regime conflicts.[53]

Lex specialis derogat legi generali or *lex specialis* is the principle prescribing that a law in force that is more specific will be applied instead of the general law of the area. *Lex posterior ior derogat legi priori* or *lex posterior* is the principle that gives primacy to more recent laws over former rules on the same issue. Other interpretative methods used to deal with the conflict of laws include *jus cogens*, *obligations erga omnes*, and systemic integration. Peremptory norms, or *jus cogens*, are the fundamental principles of international law from which no derogations are permitted. *Obligations erga omnes* refer to predetermined obligations that states have towards the international community. Finally, by opting to use systemic integration, attempts are made to apply all laws that exist regarding the case at hand in a harmonious fashion, in order to integrate those laws and fulfil the intention of the legislator. The ILC regards systemic integration as reflecting Article 31(3)(c) Vienna Convention on the Law of Treaties, which states that:

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50 Young, Bibliography, 2.
51 Hafner, 856.
52 For example: In situations of armed conflict, there is a conflict between two regimes – International Human Rights Law and International Humanitarian Law.
53 Anja Lindroos, 'Addressing Norm Conflicts in a Fragmented Legal System: The Doctrine of *Lex Specialis*' (2005) 74(1) Nordic Journal of International Law 27, 32 and 33.

(3) There shall be taken into account, together with the context:

(c) Any relevant rules of international law applicable in the relations between parties.[54]

Therefore, once the matter comes before a tribunal, under this interpretative approach, all relevant laws must be taken into account.

Regimes and regime interaction is considered by Young to be a central concept in the analysis and understanding of fragmentation.[55] Certain regimes build up around specific subject matter. However, according to Laurence Helfer, international relations scholars have developed the concept of international regimes to be broader than a particular organisation or treaty.[56]

In general, regimes are often thought of as being dominated by particular characteristics and biases towards one way of thinking.[57] In order to face the fragmentation that is introduced by the existence of numerous regimes, one option to ensure the proper functioning of the international legal system is for regimes to interact with one another, creating a dialogue between them. However, it is argued by certain commentators that rather than regime interaction being of benefit, the result will be a co-option of the weaker regime,[58] or regime collision.[59] Others argue that the harmonised interpretation of regimes is not possible due to the political, ideological and other differences that will inevitably exist between

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54 Article 31(3)(c) Vienna Convention.

55 Young, Bibliography, 26.

56 Laurence R Helfer, 'Regime Shifting: The TRIPs Agreement and New Dynamics of International Intellectual Property Lawmaking' [2004] 29 The Yale Journal of International Law 1, 10.

57 Andrew Lang, 'Legal Regimes and Professional Knowledge: The Internal Politics of Regime Definition' in Margaret Young (ed), *Regime Interaction in International Law: Facing Fragmentation* (Cambridge University Press 2012).

58 Martti Koskenniemi, 'Hegemonic Regimes' in Margaret Young (ed), *Regime Interaction in International Law: Facing Fragmentation* (Cambridge University Press 2012).

59 Fisher-Lescano and Teubner, 999-1046.

them.[60] On the other hand, it is also argued by some that regime interaction and the resulting productive friction will 'lead to a more responsive and effective international legal system,' which takes into account numerous opinions and interpretations of substantive law, rather than a system which focuses purely on a single rule.[61]

Principles of constitutionalism and pluralism have also been used to respond to and gain a deeper understanding of fragmentation in international law. On the one hand, it has been noted that the lack of a constitutional system is the reason for fragmentation; on the other, constitutional practices can be used and developed in order to respond to existing fragmentation.[62] Although the ILC regards norms of *jus cogens* and *obligations erga omnes* to be quasi-constitutional, an international constitution is believed to be embryonic[63] and in the absence a vision of a perfected international order, the exploration of regime interaction began.[64]

There are also those who are in favour of recognising pluralism as offering a framework for conceiving and responding to fragmentation. Pluralism, defined above as the existence of multiple and overlapping legal rules, allows for diversity and flexibility within a legal system. Pluralist legal systems survive without hierarchy, and according to Barber, create a situation in which the risk of divergence is known and an effort made to avoid it by harmonious interpretation of the law.[65] According to this argument, acknowledging the existence of

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60 Stephen Humphreys, 'Structural Ambiguity: Technology Transfer in Three Regimes' in Margaret Young (ed), *Regime Interaction in International Law: Facing Fragmentation* (Cambridge University Press 2012).

61 Young, Introduction, 11.

62 Young, Bibliography, 35.

63 Erika De Wet, 'The International Constitutional Order' (2006) 55(1) International and Comparative Law Quarterly 51.

64 Jeffrey Dunoff, 'A New Approach to Regime Interaction' in Margaret Young (ed), *Regime Interaction in International Law: Facing Fragmentation* (Cambridge University Press 2012) 154.

65 Barber, 327 and 328.

inconsistencies allows for political compromise, and allows parties who disagree regarding the specifics of a law to all emerge victorious. However, the possibility that divergence could occur troubles other scholars, who believe that legal pluralism can lead to inconsistency, legal uncertainty, and forum shopping.[66]

Also arising in the literature on fragmentation are discussions of what have been termed 'multi-sourced equivalent norms'.[67] Multi-sourced equivalent norms are described as the multiplication of similar rules arising from different legal sources,[68] or as:

> Two or more norms which are (1) binding upon the same international legal subjects; (2) similar or identical in their normative content; and (3) have been established through different international instruments or 'legislative' procedures or are applicable in different substantive areas of the law.[69]

In these discussions, focus is on the risks arising due to fragmentation from the perspective of normative parallelism – parallels between similar rules, rather than conflicts between different norms. For example, from the perspective of normative parallelism the discussion would focus on the risks arising from a divergence in human rights laws against humanitarian laws, whereas the focus of general discussions of fragmentation in international law is on the conflict between, for example, international trade law and environmental law.

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66 Brian Z Tamanaha, 'Understanding Legal Pluralism: Past to Present, Local to Global' [2008] 30 Sydney Law Review 375.
67 Broude and Shany.
68 Miguel Poiares Maduro, 'Foreword' in Tomer Broude and Yuval Shany (eds), *Multi-Sourced Equivalent Norms in International Law* (Hart Publishing 2011) vii.
69 Broude and Shany, 5.

However, the discussion surrounding multi-sourced equivalent norms has also focused on the potential responses to the risks of fragmentation and commentators are quite optimistic that they can be interpreted in a consistent manner if certain mechanisms are put into place, such as the use of secondary rules,[70] as well as judicial borrowing and dialogue, and if certain precautions are taken.[71] It has also been suggested that since multi-sourced equivalent norms are comprised of equivalences as well as differences, they create legal and political alternatives that can both enhance flexibility and enable regime shifts.[72] This is said to either strengthen international normativity, or alternatively, promote and facilitate forum shopping and manipulative behaviour.[73]

(C) ANALYSIS OF FRAGMENTATION IN INTERNATIONAL LAW

Fragmentation has been, is, and always will be a characteristic of international legal systems. However, how it has been responded to varies according to the priorities of commentators and according to how fragmentation has an impact in practice. It has therefore been viewed positively, negatively, and neutrally.

For example, Gerhard Hafner theorises that fragmentation can have both a positive and negative effects on the rule of law in the international field.[74] He argues that on the positive side, it can induce nations to comply more strictly with international law, as they may be more inclined to comply with norms of a regional nature that better reflect the particular political situations of the nations in

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[70] André Nollkaemper, 'The Power of Secondary Rules to Connect the International and National Legal Orders' in Tomer Broude and Yuval Shany (eds), *Multi-Sourced Equivalent Norms in International Law* (Hart Publishing 2011).

[71] Benedikt Pirker, 'Interpreting Multi-Sourced Equivalent Norms: Judicial Borrowing in International Courts' in Tomer Broude and Yuval Shany (eds), *Multi-Sourced Equivalent Norms in International Law* (Hart Publishing 2011).

[72] Broude and Shany, 12.

[73] Broude and Shany, 12.

[74] Gerhard Hafner, 'Pros and Cons Ensuing from Fragmentation of International Law' [2004] 25 Michigan Journal of International Law 849.

the region; and on the negative side, it can expose the frictions and contradictions between the various legal regulations that exist.[75]

One of the main arguments that has been made regarding the issue is that since fragmentation is an inherent aspect of international legal orders, it can be expected to remain. Rather than focusing on whether or not it ought to exist, therefore, attention should turn to how it ought to be harnessed. In essence, this recognises that while the effects of fragmentation can be negative, those negative effects can also be minimised by means of certain mechanisms.[76]

More generally, the classification of fragmentation as 'good' or 'bad' is not accepted by certain authors, who believe that this classification depends on an intuitive comparative threshold, which could cause issues, such as using a subjective non-existent theoretically derived benchmark to decide on the matter.[77] Using differentiation theory to conceptualise fragmentation, some of those authors, including Michael Zürn and Benjamin Faude, argue that functional differentiation, which can lead to fragmentation, is a rational response to an increasingly complex society – it is argued that a high degree of institutional differentiation is an important characteristic of modernity.[78] They come to the conclusion that the mere existence of institutional fragmentation is not undesirable, but rather creates a need for coordination among fragmented or differentiated institutions.[79] Others argue along similar lines and believe that despite an increase in functional differentiation, fragmentation is not a negative result because issue areas are held together by common values such as democracy

[75] Hafner, 850 and 851.
[76] Zürn and Faude, 127.
[77] Zürn and Faude, 126.
[78] Zürn and Faude, 120.
[79] Zürn and Faude, 120.

and procedural integrity.[80] Furthermore, it is believed by Andreas Paulus that a case can be made for an international system based on the rule of law which goes so far as to celebrate functional fragmentation, but does not lose sight of the necessity of a substantive coherence of laws and institutions.[81]

On this note, as mentioned previously, fragmentation is not considered to be inherently negative. Adopting a pluralist response to fragmentation, it can be argued that fragmentation is rather positive, by allowing for the divergences that give different states their cultural, moral, economic and political identities. For those who subscribe to this line of thought, focus is on the coordination of laws rather than their unification, promoting a joint understanding of the rule of law. It is believed that if sufficient coordination is achieved, conflicts between institutions will be minimised, and laws will remain diverse enough to respect the profound differences in society.[82] Fragmentation is seen as providing an open-texturedness that 'makes for the flexibility and contextual responsiveness of the international legal system'.[83] However, if coordination is the method by which fragmentation is to be managed, a question arises as to how this is best achieved. It appears that the most widely supported technique to promote coordination in the absence of unification is judicial dialogue, which in the long-term is hoped to lead to a general joint understanding and harmonisation of substantive law. This technique offers particular hope due to the proliferation of international courts and tribunals – which is itself a contributing factor to the fragmentation of

[80] Andreas L Paulus, 'Commentary to Andreas Fischer-Lescano and Gunther Teubner: The Legitimacy of International Law and the Role of the State' [2004] 25 Michigan Journal of International Law 1047, 1050.
[81] Paulus, 1057 and 1058.
[82] Zürn and Faude, 128.
[83] Lindroos, 29.

international law – and for similar reasons is of interest for the European patent system.[84]

The use of 'proliferation' as a description brings with it further negative connotations, which some commentators see as misleading, the increase of courts and tribunals arguably being a healthy response to the increase of laws in an area.[85] However, the mere fact that a number of courts or tribunals exist in a specific area, or in conflicting areas, creates the risk that differing interpretations of law will arise, which may in turn lead to negative results such as forum shopping. Therefore, a model for judicial integration has been proposed, based on judicial dialogue and cooperation, with a prominent (yet not hierarchical) role for international courts such as the International Court of Justice (ICJ), that purport to encourage a shared responsibility for integration.[86] Once again, judicial dialogue is seen as the key to the promotion of coordinated fragmentation. If courts and tribunals recognise that they are all part of the same legal system, the legitimacy and efficacy of international law should, in theory, prevail.[87]

Certain risks need to be considered, and the risk of judicial law making taken into account. However, as long as the dialogue is not taken so far as to introduce new laws, or unfounded interpretations of laws, the 'judicial dialogue' model can be of benefit. Courts and tribunals must also be wary of judicial deference, ensuring that scope for change remains in the case that a law ought to

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[84] For more, see: Anne-Marie Slaughter, 'Judicial Globalization' [2000] 40 Virginia Journal of International Law 1103.

[85] Georges Abi-Saab, 'Fragmentation or Unification: Some Concluding Remarks' [1999] 31 NYU Journal of International Law and Politics 919, 925; and Tullio Treves, 'Fragmentation of International Law: The Judicial Perspective' (2009) 16(27) Agenda Internacional 213.

[86] For more on Judicial Integration and the tendency of courts to integrate, see for example: Georges Abi-Saab, 'Fragmentation or Unification: Some Concluding Remarks' [1999] 31 NYU Journal of International Law and Politics 919; and Philippa Webb, *International Judicial Integration and Fragmentation* (OUP 2013).

[87] Thomas Buergenthal, 'Proliferation of International Courts and Tribunals: Is it Good or Bad?' (2001) 14(2) Leiden Journal of International Law 267, 274.

be changed or updated.[88] In addition, it has been argued that despite its apparent positive results, integration and regime interaction can lead to the 'co-opting' of a weaker regime resulting in a coordination that is not necessarily desirable.[89] However, if the judiciary is able to take into account these risks and remain aware of the negative consequences of certain actions, this method can be successful.

It is true that multiple courts and tribunals can have adverse effects, such as differing jurisprudence that 'can erode the unity of international law' and promote conflicting legal doctrine that can 'threaten the universality of international law';[90] however, it has been persuasively argued in the international law context that so long as the various judicial bodies remain within their areas of competence, apply traditional interpretation methods, avoid conflicts where possible, and take into account similar case law of other judicial organs, a joint understanding could emerge.[91] Some commentators have gone even further by proposing that harmonisation is in fact a negative concept in that it undermines policies that have been deliberately implemented by various regimes.[92] However, this approach may be too extreme. A coordinated approach would have the benefit of ensuring that all voices and policies that have been implemented are taken into account.

Fears remain however, and some commentators contend that the fragmentation of international law is a more serious problem than generally conceded.[93] It is claimed that instead of focussing on 'fragmentation', discussion is now focussed on 'diversity,' which takes away the negative connotations of

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88 Buergenthal, 273.
89 Koskenniemi, 322.
90 Buergenthal, 272.
91 Buergenthal, 273.
92 Steven R Ratner, 'Regulatory Takings in Institutional Context: Beyond the Fear of Fragmented International Law' (2008) 102(3) American Journal of International Law 475.
93 Benvenisti and Downs, 597.

fragmentation, but not its negative consequences.[94] This view supports the opinion that fragmentation is the result of a calculated strategy by powerful states, creating competing institutions with overlapping responsibilities, in order to preserve bargaining advantages by abandoning or threatening such action if their demands are not met.[95] However, as outlined above, the fragmentation of international law has just as much to do with the increase in functional differentiation and specialised regimes being introduced in order to more fully understand the law, and apply it in the correct manner. If states do use this strategy to increase fragmentation for their benefit, the expected results are left in the hands of the judiciary, who are encouraged to interpret the law in a consistent and coherent manner.

In light of the responses to fragmentation above, it can be suggested that, for the most part, the international community accepts the existence of fragmentation as a reality of international legal systems. While there is also extensive awareness and discussion of its possible risks, the overall response to fragmentation in the field of international law has moreover been almost positive, and certainly constructive. Telling evidence of this is the revision of the section of the ILC Report referring to the 'risks of fragmentation' to refer instead to the 'difficulties arising from the diversification and expansion of international law'.[96] At the very least, it has generally been accepted that as long as fragmentation exists, steps must be taken to reduce its risks.

Scholarly discussion regarding the fragmentation of international law and the proliferation of courts and tribunals has mostly taken place in first decade of

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94 Bruno Simma, 'Fragmentation in a Positive Light' [2004] 25 Mich J Int'l L 845, 847.
95 Benvenisti and Downs, 597.
96 Tullio Treves, 'Fragmentation of International Law: The Judicial Perspective' (2009) 16(27) Agenda Internacional 213, 251; and Jan J Brinkhof, 'The desirability, necessity and feasibility of co-operation between courts in the field of European patent law' (1997) 19(5) EIPR 226, 220.

the 2000s. Since then, the field of international law has continued to grow and develop without too much controversy surrounding the results of fragmentation.

As mentioned above, the discussion has somewhat shifted towards diversity and coordinated fragmentation as positive elements of the system that reflect a belief that so long as coordination and dialogue between institutions continues, numerous laws, courts and tribunals can exist without unification, respecting the divergent opinions and sovereignty of states.

One example of such coordination in practice is the situation regarding human rights in Europe, which could in fact be used to inform discussions in the patent field owing to the similarities between them. Most European countries (members of the Council of Europe) are party to the European Convention of Human Rights, which has implemented a European-wide minimum standard of human rights protection, and introduced a European Court of Human Rights to deal with breaches of law that may arise. Each state also has national human rights legislation that is enforced by national courts. If citizens' rights are being breached, with no sufficient remedy available in their Member State, they are entitled to bring a case to the European Court of Human Rights. Today, the CJEU also interprets fundamental rights, especially since the implementation of the EU Charter on Fundamental Rights 2000. All laws co-exist and judiciaries take into account the others' decisions, overlapping and interlocking.[97] Technically, as there are separate laws, courts, and tribunals, there is fragmentation in the field of European human rights (as there is in the European patent system); however, by taking into account various laws and decisions, that fragmentation experiences a form of coordination. Problems do still arise; however, there is a higher degree of general consensus.

[97] Sionaidh Douglas-Scott, 'A Tale of Two Courts: Luxembourg, Strasbourg and the Growing European Human Rights *Aquis*' [2006] 43 Common Market Law Review 629, 665.

Fragmentation and the response to it could be said to have almost become a synonym for the diversity of international law.

IV. A CONTEXTUAL THEORY OF FRAGMENTATION

The causes, nature, and effects of fragmentation in the international legal system can also be seen in the European patent system. However, despite the change in attitude towards fragmentation in the international legal system, discussion in the European patent system remains focussed on its negative effects, even though there has been little discussion of how to deal with them. Similar to the queries posed above regarding international law, questions may be raised as to the nature and effects of fragmentation within the European patent system. These include whether the law is being developed in a coherent manner, and whether the proliferation of laws, norms, courts and tribunals that cause the fragmentation in the European patent system is entirely or primarily negative, including for substantive patent law? In other words, are critics justified in their conception of fragmentation as a negative aspect of the European patent system, and regardless, does the literature on fragmentation in other supranational legal systems offer any mechanisms for harnessing the effects it produces in that system?

Fragmentation in the international system has been attributed to the proliferation of not only courts and tribunals, but also legal norms – be they concerned with different aspects of a multi-faceted issue or multi-sourced equivalent norms. Additionally, institutional hierarchy does not exist in the international legal system. A court that has the power to preside over all legal systems and render decisions that are applicable in all countries does not exist.

Prior to the initiation of international agreements, a country would only comply with, and have its citizens abide by, its own laws and customs – its national legal system. Presently, each country's national laws remain in place; however, most territories also participate in international treaties and special regimes, often distinguished by function. Subsequently, these countries must not only take into account their own national legal system, but also the international legal systems of which they are members. By embracing an international legal system, the situation often arises wherein a decision has to be made regarding which law is to be applied in certain situations and which court has jurisdiction in the matter. As discussed extensively above, conflict of law rules assist with this, as well as regime interaction, judicial dialogue and judicial integration. These mechanisms have been seen to reduce the risk of the negative consequences associated with fragmentation in the international legal system and have encouraged a shift in attitude towards fragmentation in that sphere. As a result of that shift, fragmentation has come to be seen not only as less of a threat to the goals of international integration than previously, but also as helping to realise those goals by enabling integration without sacrificing pluralism or flexibility.

As previously discussed, different norms, laws, and institutions have also developed independently from one another in the European patent system. Prior to the enactment of the Paris Convention, countries in Europe were solely dependent on national laws for the protection of industrial property. Even today, each state has an office to deal with the granting of patents in that territory, as well as a court system to decide on matters regarding infringement, validity, revocation and other post-grant matters. Following the implementation of the Paris Convention, and thereafter the Strasbourg Convention, the EU Treaties, and the EPC, the patent law landscape in Europe changed drastically.

Today, as in the international legal sphere, each EU country retains its national patent laws. However, as party to the above-mentioned international agreements, each country must also take into account the laws laid down therein. For example, patent law in the UK is subject to the Patents Act 1977 (UK).[98] However, the UK is also a signatory to the Paris Convention and the Strasbourg Convention; a Member State of the EU (for now); and a Contracting State to the EPC. Subsequently, in deciding on matters relating to patents in the UK, rulings must be made that reflect and are consistent with the provisions of the above numerous legal instruments.

As the Paris Convention and the Strasbourg Convention have been incorporated into patent laws throughout Europe, the patent laws with the most relevance for Europe are those of the EU and the EPC. However, it must also be noted that the legal provisions of the EPC have been incorporated into the national laws of the Contracting States to the EPC. National laws were also brought in line with the Community Patent Convention, although it never entered into force.[99] Furthermore, substantive patent law at EU level has also been implemented (to varying degrees) into the legal systems of Member States. Additionally, the main EU directive in patent law, the Biotech Directive, has been incorporated into the Implementing Regulations to the EPC.[100] It may therefore seem as if complete harmonisation of legal norms in the patent field has been achieved; however, this is not the case. The nature of fragmentation in the European patent system appears mostly in the interpretation of laws, but is also because not all Contracting States to the EPC are Member States of the EU.

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[98] Patents Act 1977 (UK).

[99] Convention for the European Patent for the Common Market (15 December 1975) (Community Patent Convention) (CPC).

[100] Implementing Regulations to the EPC 2000.

In addition, although this plethora of legal rules and norms have been implemented domestically, since patent law remains territorial post-grant, national courts must still make the final decisions on matters of infringement, validity and revocation. Therefore, the interpretation of substantive patent law provisions has been left largely to each individual country. Consequently, one of the main causes of fragmentation in the European patent system is the proliferation of domestic courts and tribunals, responsible for interpreting and applying the same or very similar substantive legal principles, alongside the CJEU (as the guardian of the patent law provisions of the EU Treaties and the Biotech Directive) and the EPO (as guardian of the EPC), without any effective institutional hierarchy between them. Focussing on the European tribunals specifically: the CJEU is the 'Supreme Court' of the EU; however, with regard to European patent law, the CJEU does not have jurisdiction to interpret the provisions of the EPC, and its decisions are binding on EU Member States only.[101] The Boards of Appeal of the EPO are specialised 'European' patent law tribunals (not EU, but applicable in all EU Member States and beyond); however, they do not have jurisdiction over the interpretation of domestic provisions by national courts, and their decisions are only of persuasive authority to both national courts and the CJEU. In this context of different national and European courts being required to interpret and apply the same principles of substantive patent law, it is inevitable that conflicts will arise – between different national regimes, between national regimes and the EPO, between national regimes and the CJEU, and also between the EPO and the CJEU.

[101] However, its interpretation of the provisions of Council Directive 98/44/EC of the European Parliament and of the Council of 6 July 1998 on the legal protection of biotechnological inventions [1998] OJ L 213/13 (Biotech Directive) are highly persuasive to the Boards of Appeal of the EPO due to the fact that its provisions have been incorporated into the Implementing Regulations to the EPC 2000.

Furthermore, if the proposed European unitary patent system is implemented, there will be an additional source of substantive patent law principles that will require interpretation and application, and another specialist patent tribunal in Europe with yet another different sphere of competence and jurisdiction. This effect of the unitary patent system in contributing further to the proliferation of norms and courts in Europe and thereby compounding further the degree of fragmentation in the field is seen, as in Chapter Three and Four, as one of the main causes of criticism of the system.

V. CONCLUSION

If international scholars are to be believed, fragmentation need not be seen as a negative aspect of supranational legal systems. This is the case in particular when fragmentation is a necessary or inherent aspect of a given system, and when mechanisms have been put in place or developed in order to harness its effects. It is also the case when the system is underpinned by such values as pluralism that can only be realised by allowing some legal and institutional diversity. The question that then arises is what implications this might have for the European patent system. Specifically, is it useful or even possible to see the fragmentation that currently exists within the European patent system, as positive rather than negative? If so, subject to what, if any, conditions? The purpose of the following chapters is to consider these questions.

CHAPTER SIX: LESSONS FROM THE PAST – THE EVOLUTION OF FRAGMENTATION

I. Introduction

The concept of fragmentation appears, at first glance, to run contrary to the original European objectives of an integrated community. However, this chapter examines whether this is in fact the case. It therefore considers the original objectives of the European legal system and patent system more specifically, and how those objectives are best described today.

II. The Original Aims and Motivations for Uniting Europe and the European Patent System

The origins of the European patent system lie in the beginnings of attempts to unite Europe in the aftermath of World War II. The idea of a federal 'United States of Europe' was called for by Sir Winston Churchill even earlier in 1943, on a radio broadcast;[1] however, it was not until shortly after the war that plans for a peaceful and unified Europe materialised with the call of the 1948 Hague Congress for Western economic and political union. The Hague Congress subsequently led to the establishment of the Council of Europe through the Treaty of London in 1949. The aim of the Council of Europe is 'to achieve a greater unity between its members for the purpose of safeguarding and realising the ideals and principles which are their common heritage and facilitating their economic and social progress'.[2] The efforts made by the Council of Europe for a

1 This radio broadcast is available at <http://www.coe.int/en/web/documents-records-archives-information/selection-of-audiovisual-material> accessed 30 September 2016.

2 Article 1(a) Statute of the Council of Europe.

'rapprochement' between nations were described as 'praiseworthy' but the methods used (such as consultation) apparently limited the possibility of success.[3]

Of particular interest however, is that following the establishment of the Council of Europe, work began almost immediately on the creation of a European patent as a means of pursuing the Council's aim of promoting unity between its members.[4]

The first proposal for a European patent system was from French Senator, Henri Longchambon in 1949. Longchambon submitted his proposal for the creation of a European Patent Office to the Consultative Assembly of the Council of Europe to the Committee on Economic Questions.[5] To encourage and fulfil the aims of European union, a meeting of this Committee took place to discuss the possibility of integrating the search and examination procedure of European patent law, because as it stood, the offices and systems in place were entirely national and some even non-existent after the war.[6] The Committee concluded that Longchambon's plan would not have been able to deal with the differences in national patent laws at the time but the idea was at least worth pursuing.[7] While the office of Longchambon's proposal was indeed established (as will be discussed later), his proposal for the integration of the search and examination of patents with a conclusive decision from that office was not.[8] However, this

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3 Jean Deniau, 'The Objectives and Constitutional Structure of the European Economic Community' in The British Institute of International and Comparative Law, *Legal Problems of the European Economic Community and the European Free Trade Association* (Stevens & Sons Limited 1961) 2.

4 Franz Froschmaier, 'Patents, Trade Marks and Licences within the Community' in The British Institute of International and Comparative Law, *Legal Problems of the European Economic Community and the European Free Trade Association* (Stevens & Sons Limited 1961) 59.

5 Dieter Stauder, 'The History of Art. 69(1) EPC and Art. 8(3) Strasbourg Convention on the Extent of Patent Protection' [1992] IIC 311, 313. For more detail on the Longchambon plan see: Christopher Wadlow, 'Strasbourg, the forgotten patent convention, and the origins of the European patents jurisdiction' (2010) 41(2) IIC 123; and Aurora Plomer, 'A unitary patent for a (Dis)United Europe: the long shadow of history' (2015) 46(5) IIC 508.

6 Post World War II patent applications were sent to the Patent Institute at The Hague.

7 Christopher Wadlow, 'Strasbourg, the forgotten patent convention, and the origins of the European patents jurisdiction' (2010) 41(2) IIC 123, 126.

8 Wadlow, Strasbourg, 126.

proposal was used as inspiration for future plans and a committee of governmental experts, the Committee of Experts on Patents, was established to continue work on the matter.

A number of countries believed that more could be done beyond the mere consultation that was then taking place at the Council of Europe; however, it was the threat of Soviet Union expansion and the concern resulting from the possibility of Germany becoming a federal republic that initiated action on the ground, albeit by an alternative European institution.[9] Western Europe was in a weak position. It was divided and vulnerable. The French feared that due to the vast amount of German shares in European steel production and its emerging industrial might, Germany would be unstoppable if a war emerged between them.[10] It was this fear that prompted the Schuman Declaration of 1950, initiating a re-launch of the bid to create a united Europe.

Robert Schuman, French Finance Minister at the time, gave a speech to a meeting of ministers stating that in order to protect world peace and for nations to prosper, there must be creative efforts made to ensure this.[11] The Schuman Declaration was no more than a proposal to unite the coal and steel industries of France, Germany, and any other nation that was interested in participating; however, its subsequent effects ensure its place in European history. The rationale behind this proposal was to bind France and Germany economically and politically in order to secure peace in Europe, with the added bonus of encouraging prosperity within those nations that would also participate in the agreement. The Declaration proclaimed that:

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9 Alan Dashwood, Michael Dougan et al, *Wyatt and Dashwood's European Union Law* (6th edn, Hart Publishing 2011) 3.

10 Chalmers et al, *European Union Law* (2nd edn, Cambridge University Press 2010) 9.

11 The Schuman Declaration 1950. This speech was inspired by Jean Monnet. The full text is available at: <https://europa.eu/european-union/about-eu/symbols/europe-day/schuman-declaration_en> accessed 30 September 2016.

> [T]he solidarity in [coal and steel] production thus established will make it plain that any war between France and Germany becomes not merely unthinkable, but materially impossible.[12]

Indeed, the Schuman Declaration formed the basis of the Treaty of Paris 1951 establishing the European Coal and Steel Community (ECSC).[13] The ECSC entered into force in 1952 and formed the foundations of what has evolved into the European Union (EU).[14]

The Benelux countries,[15] France, Germany, and Italy (the 'Inner Six'), demonstrated their support of the Schuman Plan. However, it was rejected by the United Kingdom (UK) on the basis of its refusal to accept the supranational governing authority (High Authority) that was stipulated in the plan.[16] The UK insisted on an intergovernmental organisation that would not weaken national sovereignty.[17] Integration was being pursued; however, diversity and national sovereignty remained of paramount importance to certain countries.

The aims of the ECSC were to 'constitute the basis for a broader and deeper community among peoples long divided by bloody conflicts', with 'foundations to be laid for institutions which would give direction to a destiny henceforward shared' (similar to those of the Council of Europe).[18] In other

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12 The Schuman Declaration 1950.
13 Chalmers, 10; Treaty establishing the European Economic Coal and Steel Community 1951 (Treaty of Paris).
14 Gráinne de Búrca, 'Europe's *Raison d'être*' [2013] Public Law & Legal Theory Research Paper Series, Working Paper No. 13-09 <http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2224310> accessed 30 September 2016.
15 The Benelux countries consist of Belgium, the Netherlands and Luxembourg.
16 Dashwood, 4 and Chalmers, 10.
17 Paul Craig and Gráinne De Búrca, *EU Law: Text, Cases and Materials* (6th edn, OUP 2015) 3.
18 Dashwood, 4, citing from the Preamble of the Treaty.

words, the goal of the ECSC was to reconstruct the economies of the European continent and ensure lasting peace in Europe.[19]

It can therefore be concluded that the original objectives of European union were to promote peace and prosperity. This was achieved by the ECSC through the establishment of the coal and steel community. These aims focused on the internal issues of the newly formed community and repairing relations between participatory nations in order to create a common market for coal and steel.

Meanwhile, at the Council of Europe, by 1953 it was realised that the complete unification of patent law in Europe was far too ambitious.[20] Countries were wary of losing their national sovereignty and as a newly formed institution, the Council of Europe did not have the luxury of being able to rely on past experiences, successes, or well-established laws and policies to garner unquestioned authority among the individual states.[21] Nation states placed a high value on diversity and sovereignty, which had to be acknowledged. Therefore, the Committee of Experts on Patents was given the choice between two proposals: one from Eduard Reimer, and another from Cornelis Johannes de Haan.[22]

As elaborated by Christopher Wadlow, the Reimer proposal suggested a convention under which national offices would grant a single European patent and a 'European Court of Justice' would have exclusive jurisdiction over revocation proceedings.[23] Infringement proceedings could also be taken to the envisioned tribunal, or to national courts.[24] Wadlow goes on to discuss that de Haan, on the other hand, took Reimer's proposal and pointed out the apparent inefficiencies of

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19 Annette Kur and Thomas Dreier, *European Intellectual Property Law* (Edward Elgar 2013) 39.
20 Wadlow, Strasbourg, 129.
21 Wadlow, Strasbourg, 129.
22 Wadlow, Strasbourg, 129.
23 Wadlow, Strasbourg, 129.
24 For more detailed information on the Reimer plan see, for example: Wadlow, Strasbourg, from 129.

this plan, including the reality of divergent examination standards existing across Europe, and the effects this would have on legal certainty owing to a dualist court system.[25] It was then proposed that an administrative European Patents Council be set up to deal with the grant of independent European patents; that national patents remain, with the option of either European or national protection; and that European and national patents be treated the same if before a judge in a national court.[26] de Haan summarised his proposal as follows:

> The system proposed here affords the possibility of coming gradually to European unity in the matter of patents without imposing for this as a prime necessity important changes in the law of the contracting countries or any measures leading to the abandonment of national sovereignty.[27]

This plan seemed to underline the importance of national diversity, yet remains true to the objectives of European integration. However, it was not a success. Between 1955 and 1960, after numerous discussions and debates, projects Reimer and de Haan were 'practically abandoned' and when discussions recommenced, 'even more modest plans' were put in place.[28] According to Wadlow, 'the Committee had decided that the partial unification of substantive patent law had to precede the creation of a European patent' and that more research was necessary to achieve that end.[29]

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[25] For more detailed information on the De Haan plan see, for example: Wadlow, Strasbourg, from 135.
[26] Wadlow, Strasbourg, 129.
[27] Wadlow, Strasbourg, 139 – referring to Proposal for the granting of European patent by setting up of a European Patent Council, presented by M. de Haan. EXP/Brev B (54) 1 (Paris, March 6, 1954).
[28] Froschmaier, 59.
[29] Wadlow, Strasbourg, 145.

Peace and prosperity were arguably not the only motivations for the beginning of European union. The objectives of creating a peaceful and prosperous Europe were enshrined in the Treaty of Paris; however, Joseph Weiler has identified what he believes to be another ideal – supranationalism, first witnessed by the unification of the coal and steel community.[30] The creation of a common market for coal and steel had the effect of securing peace in troubled times. It also had the effect of encouraging trade between nations, which in turn increased prosperity within them. However, the countries of Europe would only commit to a Treaty of this kind if it were to be of benefit to them individually. Although the ECSC came with the price tag of supranationalism and vesting some power in the High Authority, some countries were willing to accept this in order to boost their struggling post-war economy:

> [P]eace was to breed prosperity and prosperity was to consolidate peace.[31]

The ECSC proved worthy of compromising some national sovereignty in order to encourage peace in Europe, a significant issue at the time, and in turn increase their prosperity. The nationalistic attitude of European states was changing and due to its success, the ECSC could be relied upon.[32] This paved the way for the Inner Six to go further in their attempts at integration.

With time, the objectives of European union had subsequently developed from merely the unification of the coal and steel community into something much

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[30] Joseph Weiler, 'Europe After Maastricht – Do the New Clothes have an Emperor?' [1995] Jean Monnet Working Papers No. 12 <http://www.jeanmonnetprogram.org/1995-jean-monnet-working-papers/> accessed 30 September 2016.

[31] Joseph Weiler, '60 years since the first European Community – reflections on political messianism' (2011) 22(2) EJIL 303, 303.

[32] Craig and de Búrca, 4.

more. A conference had been held in Messina in 1955, wherein the ministers of the nations of the ECSC agreed that it was necessary to make 'a fresh advance towards the building of Europe', and that this must first be achieved in the economic area.[33] After the failure of the European Defence Community,[34] Belgian Foreign Minister Paul-Henri Spaak, suggested the integration of the transport and energy sectors in the community established by the ECSC.[35] An Intergovernmental Committee was established under the chairmanship of Spaak, which produced a report in his name. The aims of European union were developing. Two further objectives were agreed upon: the development of atomic energy for peaceful purposes and establishing a European economic common market.[36]

The Spaak Report of 1956 promoted the establishment of an economic community within Europe.[37] Significantly, it made a distinction between matters that would effect the functioning of the common market (requiring a supranational decision-making framework) and those which ought to remain within the competence of Member States (with a stipulation that they should endeavour to implement policies in a coordinated manner).[38] It was not an entirely unified, but rather an integrated community. This report was the basis for negotiations for a new treaty, which culminated in the signing of the Treaties of Rome in 1957: the

[33] Dashwood, 7.
[34] The European Defence Community was proposed by French Defence Minister, René Pléven. It was structured similarly to the ECSC and would have introduced a European Army. However, before this could become a reality, a new French government took power and rejected the proposal.
[35] Chalmers et al, 11.
[36] Dashwood, 7.
[37] Chalmers et al, 11.
[38] Chalmers et al, 11.

Treaty Establishing the European Economic Community (EEC); and the European Atomic Energy Community (EURATOM).[39]

At the time when the Treaty of Rome was being negotiated, it seemed necessary from the very beginning to decide on a structure in terms of 'certain machinery and certain commitments' and the Treaty was described as an 'indisputably… economic Treaty with a political character'.[40] The common market was said to represent the fusion of economic and political movements towards unity – strengthening cooperation between European States and reducing the commercial and industrial fragmentation from which Europe was suffering.[41] The ECSC initiated this objective, which was then advanced through subsequent discussions, negotiations and ultimately the EEC Treaty.

The aims of the EEC are contained in Article 2, which states that its purpose is:

> [T]o promote throughout the Community a harmonious development of economic activities, a continuous and balanced expansion, an increase in stability, an accelerated raising of the standard of living and closer relations between the States belonging to it.

From a reading of Article 2 EEC, a reflection of the original objectives and ideals of an integrated Europe can be seen in referencing to promoting an increase in stability (peace) and an accelerated standard of living (prosperity) and closer relations between the States belonging to it (supranationalism). However, the EEC also went further. Its additional aims were: to cover all areas of the economy, not

[39] As discussed in Chalmers et al, 11 and 12. EURAROM created a specialist market for nuclear power in Europe and was initially created to coordinate the research programs of Member States for the peaceful use of nuclear energy.
[40] Deniau, 1.
[41] Deniau, 1.

just coal and steel; to introduce provisions abolishing customs duties; to implement the free movement of goods, persons, services and capital; and to introduce procedures for the harmonisation of national laws. Thus, the EEC laid the foundations for further progression towards its goal of integration.[42]

A shift was occurring in European development: rather than focusing on unification, the EEC became focused on integration through harmonisation owing to the expansion of its objectives. Of interest especially is the fact diversity had been the standard and it was only with the onset of the European project in the ECSC that unification was seen as a more suitable alternative. This may have been appropriate in the post-war period, but with the achievements of the ECSC and the expansion of the Community objectives, perspectives also began to expand.

The objectives of European union formed the basis of the establishment of a common market among the Inner Six, developing and transforming the six individual markets into a single market eliminating all obstacles to intra-state trade.[43] The aims of European union began with unification, for peace and prosperity; however, a fresh and sustained focus on economic integration through harmonisation, via the single market, was initiated.

In 1960, the Stockholm Convention,[44] which established the European Free Trade Association (EFTA), created another kind of European community. Austria, Denmark, Norway, Portugal, Sweden, Switzerland and the UK (the 'Outer Seven') created a trade bloc alternative for European States who were unable or unwilling to join the EEC. Its aim was to eliminate barriers to trade, primarily in the field of duties and quantitative restrictions, establishing a free

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42 Anthony Parry and James Dinnage, *Parry and Hardy EEC Law* (2nd edn, Sweet & Maxwell 1981) 161.
43 Deniau, 3.
44 Convention establishing the European Free Trade Association 1960 (EFTA).

trade area where trade passing from one country to another was not obstructed by barriers; each state retained control over the level of duties charged in its trade with third countries.[45] Iceland and Liechtenstein subsequently joined the EFTA; however, only four member states remain party to the EFTA today.[46]

The expansion of European objectives, and the development of their fulfilment through harmonisation measures, rather than unification, are reflected in the European patent debates of the time. When discussions concerning a European patent recommenced at the Council of Europe in the early 1960s,[47] a preliminary draft was adopted as a working document containing provisions on substantive patent law, which after a few years was adopted in Strasbourg in 1963 as the Convention on the Unification of Certain Points of Substantive Law on Patents for Invention 1963 (Strasbourg Patent Convention).[48] The Strasbourg Patent Convention was responsible for unifying the substantive law on the requirements of patentability, but introduced no procedural reform. Having fulfilled its objective, the Council of Europe stepped back and allowed patent policy to become a focus for the EEC.

The creation of the EEC following the ECSC had a major impact on the creation of a European patent system. As pointed out by Anthony Parry and James Dinnage, the EEC Treaty provided the opportunity to elaborate on intellectual property law at Community level and in a wider European context.[49] In 1959, patent law became a focus of internal market policy for the first time when Hans von der Groeben made a speech highlighting the necessity of establishing a patent that would cover the entire common market – the creation of an 'EC patent',

[45] Henry Galton Darwin, 'The European Free Trade Association' in The British Institute of International and Comparative Law, *Legal Problems of the European Economic Community and the European Free Trade Association* (Stevens & Sons Limited 1961) 99.
[46] The members of the EFTA are: Switzerland, Norway, Liechtenstein and Iceland.
[47] The delay of five years in the plans of the Council of Europe can be attributed to the creation of the ECSC and its subsequent development into the EEC.
[48] Wadlow, Strasbourg, 145.
[49] Parry and Dinnage, 189.

along with the harmonisation, rather than unification, of national laws.[50] The EEC had officially usurped the European patent agenda from the Council of Europe.

In 1962, the EEC Commission published a Draft Agreement on a European Patent prepared under the chairmanship of Kurt Haertel.[51] The 'EEC phase', as coined by Haertel in his commentary, and discussed by Bob van Bentham, 'came to an end in 1965 with the production of a complete draft of an EEC patent law', which included the centralised grant of European unitary patents and a system of law governing them.[52] The UK (who were an invited party to the negotiations) rejected the EEC patent because it would possibly include association with non-members that could perhaps be opposed to the idea of the common market.[53] While there was momentum behind the implementation of European union in order to introduce a new legal order, French President Charles de Gaulle highlighted the scepticism of those who were not in favour of the supremacy of European law.[54] This Euroscepticism can be seen through de Gaulle's own words in a statement at a press conference in 1962:

> These ideas [supranationalism] might appeal to certain minds but I entirely fail to see how they can be put into practice…Would the peoples of France, of Germany, of Italy, of the Netherlands, of Belgium, or of Luxembourg ever dream of submitting to laws passed

[50] Otto Bossung, 'The return of European patent law to the European Union' (1996) 27(3) IIC 287, 288.
[51] Bossung, 288; and Jurgen Schade, 'Is the Community (EU) patent behind the times? – Globalisation urges multilateral cooperation' (2010) 41(7) IIC 806, 807.
[52] Johannes van Bentham, 'The European Patent System and European Integration' (1993) 24(4) IIC 435, 437.
[53] Bossung, 289.
[54] Chalmers et al, 16, quoting from David Weigall and Peter Stirk, *The Origins and Development of the European Community* (Leicester, Leicester University Press, 1992) 134.

by foreign parliamentarians if such laws run counter to their deepest convictions? Clearly not.[55]

Eurosceptics saw supranationalism as a threat to national sovereignty and democracy, a threat which continues to cause trouble and cast doubts on the legitimacy of the EU, even today.[56] As a result of this political stagnation, work on the European patent was put to one side.

In 1965, the Merger Treaty[57] amalgamated the commissions and parliamentary assemblies of the ECSC, the EEC and EURATOM into a single Commission and Council. The reason for doing so was arguably to extinguish the remnants of the fear leftover after the signing of the Treaty of Rome, that no institution on its own would be taken seriously, that 'turf wars' might break out between the bodies and that there would be difficulties in coordinating their activities.[58] This merging advanced the objectives of European integration by providing a single Commission and Council, rather than three dealing with distinct entities.[59] In addition, de Gaulle, who had vetoed UK entry into the EEC in 1963, and into the then EC four years later, resigned in 1969, opening the Community for new members.[60]

Subsequently, concepts of European integration as well as economic necessity encouraged the creation of a centralised European grant procedure; patent offices were overloaded and patent industry was in desperate need of relief from the time consuming nature of the application process for numerous national

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55 Chalmers et al, 16.
56 Chalmers et al, 16. This is especially apparent from the recent UK vote, by referendum, to leave the EU.
57 The Merger Treaty 1965 (Brussels Treaty).
58 Chalmers et al, 13.
59 Chalmers et al, 13.
60 Chalmers et al, 13.

patents.[61] It therefore made sense to implement a separate convention that could be open to more than the members of the Community and that would require the ratification of a limited number of parties.[62] The original draft of the EEC patent was divided into two: the European Patent Convention (EPC)[63] and the Community Patent Convention (CPC).[64] Discussions commenced, and from then onwards a group of five (Bob van Bentham, Kurt Haertel, Albrecht Krieger, Romuald Singer and Klaus Pfanner) worked together on the drafting of the EPC and the CPC in order to further the objectives of the Community.[65]

The developing aims of European integration are reflected in the development of European patent law. It sought to establish a uniform grant procedure and uniform substantive patent law to be applied by national courts and other authorities in a uniform way; however, it did not replace the previous national systems, and therefore had the effect of harmonising rather than unifying existing national systems. Not only did the founding fathers of European patent law work on the drafting of these two famous conventions, they also contributed centrally to its associated conferences, and were employed in the European Patent Office (EPO) when it was subsequently established by the EPC.[66]

The EPC was intended to create a centralised, harmonised procedure for the granting of patents in Europe.[67] In 1973, at a meeting in Munich, the EPC became a reality. As laid down in its preamble, its goal, reflecting the wider goal of European integration, was 'to strengthen cooperation between the States of Europe in respect of the protection of inventions, [and ensure] that such protection

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61 Van Bentham, 437.
62 Van Bentham, 437.
63 Convention on the Grant of European Patents of 5 October 1973 (European Patent Convention) (EPC).
64 Convention for the European Patent for the Common Market (15 December 1975) (Community Patent Convention) (CPC).
65 Van Bentham, 435.
66 Van Bentham, 435.
67 For a significantly detailed analysis of the EPC, see: Martijn Van Empel, *The Granting of European Patents* (Sijthoff 1975).

may be obtained in those States by a single procedure for the grant of patents and by the establishment of certain standard rules governing patents so granted.'[68] The EPC was not an EEC instrument and is not today an EU instrument. The implementation of the EPC furthered European integration but not purely on the level of the European Economic Community. The EPC constitutes a special agreement within the meaning of Article 19 of the Paris Convention and therefore applies to all participating states of the latter convention.[69]

The EPC harmonises the examination of European patents, simplifying the procedure of patent grant and ultimately producing a bundle of national patents. The implementation of the EPC was clearly beneficial; however, when the EPO opened in 1977, practitioners approached it with understandable caution, as it was a new and untested system.[70] As well as this, European states were, to some extent, placing their destiny in a new institution and authority, thereby giving up a further portion of their national sovereignty in order to promote the objectives of Europe,[71] though without abandoning their own national patent systems, which remained. However, their acceptance of the EPC highlights the increasing view of Europe as a vehicle through which nation states could articulate their understanding of themselves and 'their place within Europe and the world'.[72]

The examination of the European patent system thus far has shown that the drafters were very aware of the aims of European integration, and worked as

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68 Preamble, EPC.

69 Kur and Dreier, 91.

70 Todd Dickinson, 'Seven Organisations Assess the Impact of the EPC' [2013] Managing Intellectual Property, Europe IP Focus <http://www.managingip.com/IssueArticle/3263177/Supplements/Seven-organisations-assess-the-impact-of-the-EPC.html?supplementListId=90047> accessed 30 September 2016.

71 Managing Intellectual Property, 'Analysing 40 years of the EPO: what has it done for us?' [2013] Managing Intellectual Property, European IP Focus <http://www.managingip.com/IssueArticle/3263110/Supplements/Analysing-40-years-of-the-EPC-What-has-it-done-for-us.html?supplementListId=90047> accessed 30 September 2016, referring to Pascal Griset, *The European Patent: A Success Story for Innovation* (Kösel Burch Altusried-Kuugzell, Germany 2013).

72 de Búrca, 10, referring to Martin Wolf, 'Why the Eurozone may yet survive: Members remain absolutely committed to the idea of an integrated Europe' *Financial Times* (17 April 2012).

best as they could to fulfil these aims in the patent field. However, the EPC is only one side of the story.

Originally, as pointed out by Stefan Luginbuehl, it had been conceived that the CPC would be implemented for EEC Member States to complement the EPC in order to provide unitary patent protection throughout the Community and create a common court of appeal.[73] However, it is important to note that the Inner Six never intended their system to be exclusive, and recognised the importance of the national values and the cultural diversities of national laws and court systems.[74] Issues such as entitlement, infringement and compulsory licenses, basis' in different patent philosophies (bringing up further questions regarding property, employment and contract law), all connected to national sovereignty, and went to the heart of the CPC.[75] Although the CPC was seen as vital to the importance of the founding principle of free movement, to this day, it has not entered into force.[76] Glancing back to the objectives above, it could be seen here that one of the main aims of a European patent system was that of unification. By attempting to introduce a unitary patent, the original drafters were in line with the wider efforts of European policy makers to realise visions of unity through the Community. This is clear from the goals of the CPC that strived to some extent to integrate a unified patent law into the harmonised internal market of the European Community.[77]

The Inner Six signed the CPC. However, many difficulties arose with ratification due to internal problems within Member States. These included the British government's concerns regarding dispute settlement and the legal validity

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[73] Stefan Luginbuehl, 'A stone's throw away from a European Patent Court: the European Patent Litigation Agreement' (2003) 25(6) EIPR 256, 258.
[74] Justine Pila, 'The European Patent: an old and vexing problem' (2013) 62(4) ICLQ 917, 923.
[75] Pila, Vexing, 924.
[76] Albrecht Krieger, 'When will the European Community patent finally arrive?' (1998) 29(8) IIC 855, 857.
[77] Krieger, 857

of the Community patent, as well as the constitutional and political issues in Ireland and Denmark that required referenda to continue the ratification procedure.[78] Evidently, nation states were not yet prepared for unification of the patent system; they were not ready to give away complete control to a higher authority in this case.[79] Thus, the CPC remains in limbo between signing and ratification, and its implementation is now highly unlikely.

In conclusion, it can be said that the pursuit of a European patent system was motivated by the same aims of prosperity and supranationalism that have been said to have motivated European union in general.

The European evolution had created a benchmark for post-war reconstruction and inspired reconciliation between nations.[80] Gráinne de Búrca considers that the 'European Union experiment' has been a success by bringing peace and prosperity to the continent.[81] She elaborates that regarding peace, European union has brought the states of Europe, post-war, into an agreement that made war virtually impossible, but also went further by reuniting Eastern and Western Europe after the fall of the Iron Curtain, and further, that the establishment of the internal market brought prosperity to Member States by expelling custom duties and broadening the local national market to a supranational one.[82] In terms of supranationalism, the internal market brought about a form of transnational cooperation without nations losing all of their sovereignty.[83] The development of European patent law and the European patent system is seen to reflect these objectives.

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78 Van Bentham, 438.
79 Van Bentham, 438.
80 Weiler, Political Messianism, 303.
81 de Búrca, 2.
82 de Búrca, 2.
83 de Búrca, 2.

The motivations of the European patent system can also be seen to have developed from encouraging unification, to implementing harmonising measures. At this point, integration has been pursued somewhat successfully through harmonisation rather than unification; national diversity and territoriality remain key features of European law and European patent law.

III. The Development of Europe, European Integration and the European Patent System

After a period of political stagnation or 'malaise' in the Community, the Single European Act was introduced in 1986, which has been described as a 'kick-start' to the further fulfilment of the economic goals of the Community.[84] According to Paul Craig and Gráinne de Búrca, this was due to the new Article 100a EEC, which stated that:

> The Council shall… adopt the measures for the approximation of the provisions laid down by law, regulation or administrative action in Member States which have as their object the establishment and functioning of the internal market.[85]

New provisions were introduced on regional policy and the environment, enforcing the view of a truly common market that would yield the ever-closer union of the peoples of Europe.[86] The objectives of European integration were expanding from the merely economic and political, to social policy and other

[84] Craig and de Búrca, 10.
[85] Craig and de Búrca, 10.
[86] Joseph Weiler, 'The Transformation of Europe' (1991) 100(8) The Yale Law Journal 2403, 2458.

matters. However, as mentioned in the treaty text, this was to be done through the approximation rather than the unification of laws, which appreciated the diversity and value pluralism that existed between nations.

Succeeding the implementation of the Single European Act, momentum continued with the signing of the Treaty on the European Union (TEU) in Maastricht,[87] which introduced further objectives for the EU and implemented the famous three-pillar structure as well as the principle of subsidiarity, which aims at bringing the EU and its citizens closer by guaranteeing that action will be taken as close as possible to the people affected.[88] The TEU was criticised extensively for threatening the cohesiveness and unity of the Community order.[89] This was because it also introduced mechanisms of differentiation such as closer/enhanced cooperation.[90] The perceived disadvantages (such as lack of unity and increased fragmentation) were apparently outweighed in the interests of permitting the Community to progress in areas that might otherwise have stagnated the process of integration entirely.[91] The introduction of these provisions reflects the change in attitude towards European integration, moving from the original purpose of unification to that of harmonisation and value pluralism. This risked increasing fragmentation, but was necessary to protect diversity among nation states.

In 1997, the TEU was amended by the Treaty of Amsterdam in order to enhance the democratic legitimacy of the EU by increasing the powers of European Parliament. It also arguably legitimised differentiation in the form of closer/enhanced cooperation by somewhat simplifying that process.[92]

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87 The Treaty on the European Union 1992 (TEU).
88 Article 5 TEU, Craig and de Búrca, 13.
89 Deirdre Curtin, 'The Constitutional Structure of the Union: A Europe of Bits and Pieces' [1993] 30 CML Rev 17, 67.
90 Craig and de Búrca, 13.
91 Craig and de Búrca, 13.
92 Craig and de Búrca, 15 and 16.

However, not only were European objectives developing and expanding, focus was turning to the promotion of the values of the EU.[93] In 2001, the TEU was amended by the Treaty of Nice, which reformed the institutional structure of the Community to withstand the Eastern European expansion and enlargement in general, a problem that was not addressed by the Treaty of Amsterdam.[94] It also introduced a statement of European values into the text of the Treaty.

The Lisbon Treaty 2009, introduced in response to the failure of the Constitutional Treaty, contained the most extreme changes to the TEU, abolishing the three-pillar structure, creating a more solid basis for the EC (now EU) to adopt autonomous acts on trade in services, commercial aspects of intellectual property law, and revised provisions on enhanced cooperation so as to make them easier to enforce.[95] The EC Treaty was amended, which was then renamed the Treaty on the Functioning of the European Union (TFEU). The EU was henceforth to be based on the TEU and the TFEU, which were to succeed the EC.

Further to the Nice Treaty, Article 2 TEU declared that the Union was 'founded on the values of respect for human dignity, freedom, democracy, equality, the rule of law, and respect for human rights' and should respect the fundamental rights provided in the European Convention of Human Rights. As observed by Joris Larik, for the first time, the values of the EU appear before its objectives (Article 3 TEU) and although the order of the Treaty provisions does not equate to their importance, this represents a 'paradigm shift' from a Union preoccupied by objectives, to one declaring what it stands for.[96]

EU interests had progressed far beyond mere trade initiatives and had entered the social policy realm, among others. This is indicative not only of the

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93 Joris Larik, 'From speciality to a constitutional sense of purpose: on the changing role of the objectives of the European Union' (2014) 63(4) ICLQ 935.
94 Craig and de Búrca, 16.
95 Chalmers et al, 40.
96 Larik, 951.

success of the EU but also its far-reaching power and motivation to take account of the interests of member states, public policy and fundamental rights such as human dignity. This can be seen clearly in the patent field in the area of biotechnological inventions.[97]

It could be argued that the reason for this evolution of EU interests was that it was seen as necessary to expand the scope of the internal market, not only in terms of policy areas and objectives, but also because there were far more Member States than previously envisaged. The objectives of the EU were expanding exponentially, and so a focus on its values gave the EU a solid foundation that would speak more personally to its Member States. A tolerance and respect for differences was becoming even more apparent, what is described as 'value pluralism'.

The increase in membership of the EU through this time-period was unprecedented and this expansion continues today.[98] Due to this increase, European objectives had to develop and the methods to promote these objectives had to change.[99] Moreover, since the establishment of the EU, its objectives have also become more externally focussed in order for it to compete in global economics and politics, while also remaining focussed on its internal mission – the consolidation and strengthening of the internal market needing to take place alongside external development.[100] Fundamental rights and values have also had to be taken into account. The Preamble to the TEU establishing the European Union states that it is:

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[97] This will be discussed in Chapter Eight.

[98] In 1973, not long after the resignation of Charles de Gaulle, the UK, Denmark and Ireland joined the Community and from that point the EU saw a large expansion and grew quite quickly from the original Inner Six, to include not only the Outer Seven, but also, Eastern European countries and more.

[99] This saw the introduction of 'variable geometry' or 'differentiation' in the form of the closer cooperation/enhanced cooperation procedure.

[100] de Búrca, 10.

> RESOLVED to mark a new stage in the process of European integration undertaken with the establishment of the European Communities,
>
> DRAWING INSPIRATION from the cultural, religious and humanist inheritance of Europe, from which have developed the universal values of the inviolable and inalienable rights of the human person, freedom, democracy, equality and the rule of law…

Furthermore, in Title I, Article 3 (3) TEU states that:

> The Union shall establish an internal market. It shall work for the sustainable development of Europe based on balanced economic growth and price stability, a highly competitive social market economy, aiming at full employment and social progress, and a high level of protection and improvement of the quality of the environment.
>
> It shall promote scientific and technological advance.
>
> It shall combat social exclusion and discrimination, and shall promote social justice and protection, equality between women and men, solidarity between generations and protection of the rights of the child.

While original objectives have been expanded, a commitment to the idea of an integrated Europe remains, and the idea that brings EU members together is their

shared values, and 'their place within Europe and now the world'.[101] The objectives of Europe have developed to be more than purely economical and political; social aims now exist to protect the rights and values of European citizens, including their freedom and democracy within the Union. However, these aims all feed back to the objectives of European integration. Development has taken place, but with the continued expansion of both the legal and geographical scope of the EU, methods of achieving European integration have to modernise. European integration could no longer be focused on unification and therefore the harmonisation of laws was pursued as a way to encourage integration in Europe while also taking into consideration national diversity and value pluralism.

Following the implementation of the Lisbon Treaty, the EU was given express competence to establish unitary intellectual property in the TFEU. Article 118 TFEU states that:

> 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 measures for the creation of European intellectual property rights to provide uniform protection of intellectual property rights throughout the Union and for the setting up of centralised Union-wide authorisation, coordination and supervision arrangements.

Furthermore, the Charter of Fundamental Rights for the EU (Charter),[102] which received the political approval of Member States in December 2000, was elevated

[101] de Búrca, 10 and 11.
[102] Charter of Fundamental Rights of the European Union 2000.

to the status of the Treaties.[103] Contained in this Charter is Article 17(2), which states:

> Intellectual property shall be protected.

From a reading of Article 118 TFEU it can be seen that the creation of unitary intellectual property rights, including by implication patent rights, is important in order to advance European integration through the implementation and development of the internal market. However, from a reading of its Preamble, the Charter is also seen to promote value pluralism. It states that 'the Union is founded on the indivisible universal values of human dignity, freedom, equality and solidarity…while respecting the diversity of the cultures and traditions of the peoples of Europe'.[104]

It has been seen through the Treaties and amendments to these Treaties that the promotion of European integration has remained a core objective for the EU; however, the expansion of the scope of the internal market into new realms, the increasing number of Member States, and a focus on the values and external mission of Europe, has developed and changed the nature of the fulfilment of these objectives. Therefore, new methods that have been introduced in the Treaty amendments ought to be used in order to promote European integration. It is through differentiated integration and harmonisation that Europe will move forward. Although laws will not always be uniform, they will progress further towards integration than possible if unification were required.

[103] Article 6 TEU.
[104] Preamble Charter of Fundamental Rights of the European Union 2000.

IV. The Current Condition of European Integration and the European Patent System

Due to the initial success of European union, a sense of being 'European' has developed. As mentioned, this apparently drives the further development of Europe and turns its focus on to its place in the world. In terms of original objectives, European union has been successful: France and Germany have not gone to war; and nations have prospered and re-built themselves into functioning economies. Matters may have improved in the initial phase of re-building, however, conditions have somewhat deteriorated. New conflicts have emerged and following the recent recession, many Member States have been placed under austerity measures. For these reasons also, original motivations have had to develop and further Euroscepticism has formed throughout Europe. This is especially apparent after the decision of the UK, by referendum, to leave the EU. This must be also taken into consideration in the discussion of the European patent system.

The EU remains focussed on European integration; however, account must also be taken of these enormous changes that have occurred in the Union since its inception. The biggest change in context has been the expansion of the EU from six to twenty-eight Member States, coupled with the expansion of the scope of the EU common market to new policy areas. It was in order to modernise, and in recognition of this expansion, the EU introduced the enhanced cooperation mechanism. This could be seen as having been necessary because reaching consensus, post-expansion, between all Member States, could delay integrationist objectives. While enhanced cooperation could permit further derogations from EU

law[105] and result in fragmentation rather than integration, it also enables differentiated integration where this is the only way forward, no longer optional but a 'necessary condition of progress',[106] a 'last resort'.[107]

A reflection of the change in the means used to achieve European integration can also be seen in the development of the European patent system. Although steps have been taken at EU level to create European intellectual property rights that provide uniform protection throughout the Union, former developments in the European patent system have arguably threatened this possibility in the patent field.[108] The source of that threat is the success of the EPC, a non-EU agreement that also promotes the harmonisation of patent law. It may be said since the EPC has succeeded in harmonising the granting procedure of European patents, the further integration of patent laws by the EU is on the one hand less pressing, and on the other hand a challenge because all EU Member States are Contracting States to the EPC.[109] The success of the EPC has been said to have 'overshadowed' the attempts of the EU to introduce a unitary patent.[110]

As pointed out by Jan Willems, the EPC, from the point of view of an historian (comparing what was before and what is now), has been successful.[111] This was also made apparent by various members of the patent community,

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[105] Also, the CJEU has ruled in the *Omega* case that further derogations from EU law can be justified by an overriding reason of public interest: Case C-36/02 *Omega Spielhallen- und Automatenaufstellungs-GmbH v Oberbürgermeisterin der Bundesstadt Bonn* ECLI:EU:C:2004:614.

[106] Giandomenico Majone, 'Unity in diversity: European integration and the enlargement process' (2008) 33(4) EL Rev 457.

[107] Article 20(2) TEU.

[108] Aurora Plomer, 'A unitary patent for a disunited Europe: the long shadow of history' (2015) 46(5) IIC 508.

[109] Plomer, 524.

[110] Hanns Ullrich, 'Patent Protection in Europe: Integrating Europe into the Community or the Community into Europe?' (2002) 8(4) European Law Journal 433; and Hanns Ullrich, 'Harmony and unity of European intellectual property protection' in David Vaver and Lionel Bently (eds), *Intellectual Property in the New Millennium* (Cambridge University Press 2004).

[111] Jan Willems, 'The EPC: the emperor's phantom clothes? A blueprint instead of a Green Paper' [1998] 1 IPQ 1, 2.

especially on the fortieth anniversary of the Convention in 2013.[112] The EPC has brought together countries with different interpretations of key patent concepts. Seven Contracting States have grown to thirty-eight, extending the impact of the EPC far further than envisioned originally. The number of applications filed has also increased dramatically, being almost ten times more today than was originally envisaged in 1973.[113] It has made the process of applying for a patent much easier for the patentee. It has also harmonised the requirement of patentability and standards of their assessment through common search and examination procedures, thereby increasing the quality of patents and the efficiency of patent granting in Europe.[114]

However, for some, fragmentation remains as a negative aspect of the system without the implementation of a unified patent system. Whether a unitary patent system could be achieved alongside the EPC is highly questionable. It has been suggested by Otto Bossung that in a rapidly changing Europe, two types of patent cannot exist and so all European (EPC) patents granted to EU Member States should be transformed into EU patents, perhaps by the EU acceding to the EPC.[115] Given the different memberships of the EPC and the EU, and the fact that that EPC is not an EU instrument, the reality of this is highly unlikely. However, the EU Member States do have a qualified majority within the European Patent Organisation and could amend the EPC in the way they want.

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[112] See Managing Intellectual Property, EU IP Focus 2013 <http://www.managingip.com/Supplement/90047/Supplements/Europe-IP-Focus-2013.html> accessed 30 September 2016.

[113] Managing Intellectual Property, 'Analysing 40 Years of the EPC: What has it done for us?' [2013] Managing Intellectual Property, Europe IP Focus <http://www.managingip.com/IssueArticle/3263110/Supplements/Analysing-40-years-of-the-EPC-What-has-it-done-for-us.html?supplementListId=90047> accessed 30 September 2016.

[114] Managing Intellectual Property, 'Seven Organisations Assess the Impact of the EPC' [2013] Managing Intellectual Property, Europe IP Focus <http://www.managingip.com/IssueArticle/3263177/Supplements/Seven-organisations-assess-the-impact-of-the-EPC.html?supplementListId=90047> accessed 30 September 2016.

[115] Otto Bossung, 'A Union patent instead of the Community patent – developing the European patent into an EU patent' (2003) 34(1) IIC 1, 30.

Another question, however, is whether the harmonisation of laws is more appropriate at this point. Some attempts towards unifying and harmonising the European patent system have been successful, however, this has been predominantly in specific subject areas rather than for the system as a whole.[116] Currently, there is an ongoing pursuit of unification by means of the proposed European unitary patent system. However, the method being used is one of differentiated integration embodied in the enhanced cooperation mechanism mentioned above. As a result of disagreement among certain Member States, which was generally predicted owing to the expansion of the EU, enhanced cooperation was necessary to move forward. Although differences may arise, these differences are seen as allowable in order to take into account the values of all Member States. Value pluralism and national diversity are important to Member States and so new methods of harmonisation and integration are key for moving forward.

V. CONCLUSION

In analysing the development of the EU and European legal systems it has been seen that their objectives, in general, have focussed on integration. However, the development of these systems over the years has shown that certain values have a particular importance. At first, objectives and ideals of peace and prosperity were

[116] Council Regulation (EC) 469/2009 of 6 May 2009 concerning the supplementary protection certificate for medicinal products (codified version) [2009] OJ L 152/1;Council Regulation (EC) 1610/96 of 23 July 1996 concerning the creation of a supplementary protection certificate for plant protection products [1996] OJ L 198/30; Council Directive 98/44/EC of the European Parliament and of the Council of 6 July 1998 on the legal protection of biotechnological inventions [1998] OJ L 213/13 (Biotech Directive); Proposal for a Directive of the European Parliament and of the Council of 20 February 2002 on the patentability of computer-implemented inventions COM (2002) 92. For a discussion on the specialisation of patent law, see: Dan L Burk and Mark A Lemley, 'Policy Levers in Patent Law' (2003) 89(7) Virginia Law Review 1575.

of the utmost importance; however, these have grown to include supranationalism and most recently, focus is turning to the importance of values and value pluralism. There now exists a tolerance and respect for differences, which can be seen in the implementation of subsidiarity principles and in the Preamble of the Charter of Fundamental Rights of the EU.

This development is reflected in the European patent system. The use of enhanced cooperation for the creation of unitary patent protection bolsters the suggestion that fragmentation is not necessarily a negative aspect of a legal system and can in fact promote progress towards integration. Harmonisation and indirect law making may involve a level of fragmentation, however, it also specifically allows for it. Fragmentation in this context is a positive aspect of a legal system, which takes national diversity and value pluralism into account. Furthermore, it does not go against the vision of European union - it was in actuality, predicted.

CHAPTER SEVEN: FRAGMENTATION AND SUBSTANTIVE PATENT LAW

I

I. INTRODUCTION

In order to answer the central question of this thesis, whether fragmentation will be a central feature of the proposed European unitary patent system and if so, whether it can be expected to have negative consequences for the European patent system more generally, the effect of fragmentation on the European patent system and substantive patent law to date needs to be examined.

As previously mentioned, prior to the attempts to establish a European patent system, each country in Europe had its own substantive patent laws, patent offices, and courts that dealt with all (pre-grant and post-grant) patent matters. There were substantial differences between the patent laws of each country.[1] One of the first major changes to this system was also the change that made it European – the introduction of the European Patent Convention (EPC).[2] Conceived as the first of two steps towards the creation of a unified European patent system for the European Economic Community (EEC), and as an important measure for harmonising the laws and practices of a wider collection of 'European' states, the introduction of the EPC has proven to be a huge success. Further, this is despite the failure of the second step towards a unified system, which was to involve the introduction of a sister convention for the benefit of the EEC States only: the Community Patent Convention.[3]

The EPC has streamlined the patent application procedure, as well as the search and examination procedure for all thirty-eight Contracting States, and has

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1 For more detail, see: Michael Jewess, *Inside Intellectual Property: Best Practice in Intellectual Property Law, Management, and Strategy* (CIPA 2013), Appendix 20.2, 430.

2 Convention on the Grant of European Patents of 5 October 1973 (European Patent Convention) (EPC).

3 Convention for the European Patent for the Common Market (15 December 1975) (Community Patent Convention) (CPC).

introduced an Opposition Division and the quasi-judicial Boards of Appeal to deal with any opposition within nine months of grant and any appeals there from.

Exceeding all expectations, the EPC and CPC have greatly harmonised substantive European patent law, and filings at the European Patent Office (EPO) are higher than ever imagined, increasing almost every year.[4] Contracting States have implemented the provisions of the EPC into their own national laws, to a great extent harmonising substantive patent law in Europe. However, these provisions have not been implemented in the same way by every country and so each Contracting State does not have the exact same law. Furthermore, since each patent granted under the EPC takes effect as a bundle of national patents, post-grant matters, such as infringement and revocation, are dealt with by the appropriate national court in each jurisdiction.

Due to these two factors – namely, the existence of separate national patent laws, albeit based in part on the EPC, and the autonomous responsibility of national courts for enforcing them – the EPC, has caused a certain fragmentation in the European patent field. That fragmentation has two aspects: first, is the existence of divergent rules; and second, is the addition of a new institution.

The result of fragmentation can be seen in different judicial interpretations and applications of several areas of substantive patent law, including claim construction, inventive step, and patentable subject matter. However, what can also be seen is an attempt by the courts of Contracting States to the EPC and by the EPO to minimise these differences by means of various strategies.

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4 European patent filings grew by 1.6% in 2015. For more statistics, see: EPO, Facts and Figures 2016 available at <https://www.epo.org/service-support/publications.html#tab2> last accessed 30 September 2016.

II. The Implementation of the European Patent Convention and Changes to National Patent Laws

The EPC, according to its preamble, was created with the aim of strengthening 'co-operation between the States of Europe in respect to the protection of inventions', whereby such protection 'may be obtained by a single procedure for the grant of patents'.[5] However, concluding and then implementing the EPC was not a simple accomplishment - as stated by Bob van Bentham:

> That this detailed preparation took so long is due precisely to the overcoming of national attitudes: the latest views and developments had to be taken into account on a practical level, while at the same time refashioning traditional national attitudes into supranational, European attitudes and expanding national consciousness into a European consciousness.[6]

Due to these difficulties, the provisions of the EPC necessitated a kind of compromise. The system that now exists under the EPC has been described by Gerald Paterson as having 'mixed parentage' because various aspects of different national laws were taken, directly or partly, and brought together alongside some entirely new provisions in order to form the legislative basis of the EPC.[7] At the time of ratification, most Contracting States changed their national laws to conform to the newly established Convention. For example, the United Kingdom

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5 EPC, Preamble.

6 Pascal Griset, *The European Patent: A Success Story for Innovation* (Kösel Burch Altusried-Kuugzell, Germany 2013) 90.

7 Gerald Paterson, *The European Patent System: The Law and Practice of the European Patent Convention* (2nd edn, Sweet & Maxwell 2001) 4.

(UK) introduced the Patents Act 1977 (UK), replacing its preceding 1949 Act, and Germany introduced the Patentgesetz 1980 (German Patent Act).[8]

Of further relevance in this regard is that numerous Contracting States also used this opportunity to implement the provisions of the impending CPC. However, as was previously mentioned, the CPC failed to reach the necessary number of ratifications and was thus never implemented. In the years that followed, after two conferences in Luxembourg, the CPC was re-enacted as a Community Agreement and was adopted in 1989.[9] It contained a declaration that required Member States to adjust their laws in order to conform with the provisions of the new Community Patent Agreement, as well as the PCT and the EPC.[10] The Community Patent Agreement did not have any more success than its predecessor in terms of ratification and implementation. However, despite both failures, because its provisions were implemented into many national laws in preparation, the CPC and Community Patent Agreement had the effect of advancing the harmonisation of substantive patent law.

Prior to the implementation of the EPC, the numerous differences that existed in the patent laws of Contracting States concerned the term of patent protection, the scope of prior art for novelty purposes, the possibility of protecting chemical compounds, and one of the most divergent aspects, the standard of

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8 For the latest version see: Patentgesetz in der Fassung der Bekanntmachung vom 16. Dezember 1980 (BGBI. 1981 I S. 1), das durch Artikel 2 des Gesetzes vom 4. April 2016 (BGBI. I S. 558) geändert worden ist. For the latest version in English see: Patent Act as published on 16 December 1980 (Federal Law Gazette 1981 I p.1), as last amended by Article 1 of the Act of 19 October 2013 (Federal Law Gazette I p. 3830), available at: <www.wipo.int/wipolex/en/text.jsp?file_id=401424> last accessed 30 September 2016.

9 Council Agreement 89/695/EEC of 15 December 1989 relating to Community Patents [1989] OJ L 401/1 (Community Patent Agreement).

10 Community Patent Agreement, Declaration on the Adjustment of National Patent Law, Annex II.

search and examination.[11] Thereafter, significant changes were made to national patent laws, however, the effects were mixed.

On the one hand, national patent laws were substantially harmonised, which led to more legal certainty and better quality patents, largely down to the streamlined search and examination procedure at the EPO. However, this was only to a certain extent. The provisions of the EPC were not directly transposed into national laws, which has been described as undesirable.[12] The potential effect of this was cautioned by the UK courts in *Genentech Inc.'s Patent*:

> We are concerned here with a new statute which differs in important respects from the former law… We should not assume that the new Act is just the old English law re-written, or that statements of principle of passing observations on individual questions can now be culled from the reported cases and applied without reserve, however eminent the sources from which they are drawn.[13]

In the case that there were differences between the wording of the Act and the wording of the Convention, the approach promoted in the UK was to construe the Act in the same sense as that of the Convention.[14] There is an important provision in the Patents Act 1977 (UK) that promotes the consistent interpretation of UK patent law with European patent law in relation to certain provisions of the law in the UK. Section 130(7) Patents Act 1977 (UK) states:

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11 Michael Jewess, *Inside Intellectual Property: Best Practice in Intellectual Property Law, Management, and Strategy* (CIPA 2013), Appendix 20.2, 430.

12 Paterson, 36.

13 *Genentech Inc.'s Patent* [1989] RPC 203, 258.

14 *Smith Kline and French Laboratories Ltd v R.D. Harbottle (Mercantile) Ltd* [1980] RPC 363.

> Whereas by a resolution made on the signature of the Community Patent Convention the governments of the member states of the European Economic Community resolved to adjust their laws relating to patents so as (among other things) to bring those laws into conformity with the corresponding provisions of the European Patent Convention, the Community Patent Convention and the Patent Co-operation Treaty, it is hereby declared that the following provisions of this Act, that is to say, sections 1(1) to (4), 2 to 6, 14(3), (5) and (6), 37(5), 54, 60, 69, 72(1) and (2), 74(4), 82, 83, 100 and 125, are so framed as to have, as nearly as practicable, the same effects in the United Kingdom as the corresponding provisions of the European Patent Convention, the Community Patent Convention and the Patent Co-operation Treaty have in the territories to which those Conventions apply.

The provision has, however, been described as 'preposterous' by the UK Court of Appeal.[15] The reason for this description is that English is one of the three authentic texts of the Convention, and so a change in the wording of the provisions when implemented by the UK, was both unnecessary and confusing. If the wording of the provisions of the EPC had been transposed directly, there would have been less confusion and less need for section 130(7) Patents Act 1977 (UK).

Furthermore, by leaving post-grant matters, including enforcement and infringement, to the national courts, with mere guidance that they ought to take

[15] *Grimme Maschinenfabrik GmbH & Co KG v Derek Scott (t/a Scotts Potato Machinery)* [2010] EWCA Civ 1110 [82].

judicial notice of the EPC[16] and therefore interpret their laws in accordance with the EPC, numerous cases of divergent outcomes concerning the same patent arose. Although there was no harmonisation whatsoever prior to the implementation of various international agreements, this attempt was as fragmenting as it was harmonising. Only pre-grant procedures were harmonised. As a result, fragmentation arose post-grant in the form of inconsistent judicial interpretations. The infamous *Epilady* case is a prime example, wherein the same European patent with various designations was litigated in a number of Contracting States, many of which came to divergent outcomes.[17] However, *Epilady* is not the only case that displays the fragmenting effect of the EPC.[18]

Stefan Luginbuehl has identified numerous cases wherein divergent decisions have arisen: *Novartis AG and Cibavision AG v Johnson & Johnson Medical Ltd and others* 2009/2010 resulted in different decisions regarding the validity of a European patent between France and the Netherlands on the one hand and the UK and Germany on the other; *Document Security Systems v European Central Bank* 2008, where the Dutch courts came to the opposite conclusion of the German and French courts, as well as the Austrian patent office; *Pozzoli v BDMO SA* 2007, where the patent was revoked in the UK and France, but held to be valid and infringed in Germany; *Angiotech Pharmaceuticals v Conor Medsystems Inc* 2007, which resulted in different outcomes in the UK and the Netherlands; and *Muller v Hilti* 1999/2000, where the decision of the German

16 Section 91(1)(a) Patents Act 1977 (UK).

17 UK – *Improver Corp v Remington Consumer Product Ltd* [1990] F.S.R 181; Germany – *Improver Corp. & Sicommerce AG v Remington Products Inc*, Case No. 2 U 27/89 (OLG 1991) (Germany) translated in 'Improver Corp & Sicommerce AG v Remington Products Inc' (1993) 24 IIC 838; Netherlands – translated in (1993) 24 IIC 832.

18 For a detailed report comparing patent litigation across Europe see: Stuart JH Graham and Nicolas Van Zeebroeck, 'Comparing Patent Litigation Across Europe: A First Look' [2014] 17 Stanford Technical Law Review 655; and Katrin Cremers, Max Ernicke, Fabian Gaessler, Dietmar Harhoff, Christian Helmers, Luke McDonagh, Paula Schliessler and Nicolas van Zeebroeck, 'Patent Litigation in Europe' [2016] Eur J Law Econ, published online at <http://link.springer.com/article/10.1007/s10657-016-9529-0> accessed 30 September 2016.

court was at odds with the decisions of the courts of Switzerland and France.[19] This can even be seen in more recent cases, such as *Actavis v Eli Lilly* in 2014/2015,[20] wherein Arnold J in the UK Patent Court disagreed with the judgement of the Dusseldorf Regional Court on the issue of infringement. Both the UK and German cases were subject to appeal proceedings and although both courts agreed on the issue of direct infringement, a difference remained on the issue of contributory infringement.[21]

The reason for divergence in decisions is arguably due to the relevant provision of the EPC, Article 69 EPC,[22] being 'a masterpiece of ambiguity.'[23] Article 69 EPC has been criticised for having allowed Contracting States to continue using their own differing methods of claim construction, while holding true to the provisions of the EPC.[24] The Protocol on the Interpretation of Article 69 EPC and its amended version[25] promotes a middle ground between the various approaches that existed for the construction of claims and states that equivalents are to be taken into account. This middle ground approach is promoted in place of the strict literal approach, which had previously been used in countries such as the UK and Switzerland, and the signpost approach, which had previously been used

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19 Stefan Luginbuehl, *European Patent Law: Towards a Uniform Interpretation* (Edward Elgar 2011) 10.

20 *Actavis UK Ltd & Ors v Eli Lilly & Company* [2014] EWHC 1511 (Pat).

21 *Actavis UK Ltd & Ors v Eli Lilly & Company* [2015] EWCA Civ 555 [95] – [99].

22 Article 69(1) EPC: The extent of the protection conferred by a European patent application shall be determined by the claims. Nevertheless, the description and drawings shall be used to interpret the claims.

23 Iain C Baillie, 'Where Goes Europe? The European Patent' [1976] 58 JPOS 153, 167.

24 Matthew Fisher, 'New Protocol, same old story? Patent claim construction in 2007; looking back with a view to the future' [2008] 2 IPQ 133.

25 Protocol on the Interpretation of Article 69 EPC: Article 1, General Principles – Article 69 should not be interpreted as meaning that the extent of the protection conferred by a European patent is to be understood as that defined by the strict, literal meaning of the wording used in the claims, the description and drawings being employed only for the purpose of resolving an ambiguity found in the claims. Nor should it be taken to mean that the claims serve only as a guideline and that the actual protection conferred may extend to what, from a consideration of the description and drawings by a person skilled in the art, the patent proprietor has contemplated. On the contrary, it is to be interpreted as defining a position between these extremes which combines a fair protection for the patent proprietor with a reasonable degree of legal certainty for third parties. Article 2, Equivalents – For the purpose of determining the extent of protection conferred by a European patent, due account shall be taken of any element which is equivalent to an element specified in the claims.

in Germany and the Netherlands. However, despite this guidance, it arguably makes little difference in practice and so divergent decisions on the same patent remain prevalent.[26]

For example, it was the UK court in *Catnic v Hill & Smith*[27] that first introduced a purposive construction of claims, liberalising the previous strict interpretation that the courts had been used to. More recently, in *Kirin-Amgen*,[28] the House of Lords stressed that there was no longer a difference in approach towards the construction of claims between the UK and Germany.[29] Germany, as mentioned, had previously taken a signpost approach to the construction of claims. In *Formstein*,[30] the *Bundesgerichtshof* (German Supreme Court) implemented the purposive approach. However, according to Matthew Fisher, the prevailing view in Germany, citing opinions from Judge Meier-Beck and Judge Keukenschrijver of the German Supreme Court, is that a harmonised position has not yet been reached owning to the fact that the possibility of a formal doctrine of equivalence has been rejected by Lord Hoffmann of the UK Supreme Court, whereas it plays a significant role in the interpretation of patent claims in Germany.[31] Additionally, in a study comparing patent litigation across Europe (the first of its kind), undertaken by Stuart J.H. Graham and Nicolas Van Zeebroeck, empirical evidence suggests that the practices of the six countries in the study are indeed substantially different.[32]

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26 Matthew Fisher, 'New Protocol, same old story? Patent claim construction in 2007; looking back with a view to the future' [2008] 2 IPQ 133.

27 *Catnic Components Limited and Another v Hill & Smith Limited* [1982] RPC 183.

28 *Kirin-Amgen Inc & Ors v Hoechst Marion Roussel Ltd & Ors* [2004] UKHL 46.

29 *Kirin-Amgen,* [72], [73].

30 *Formstein (Moulded Curbstone)* [1991] RPC 597 (In the Federal Supreme Court of Germany).

31 Fisher, 146.

32 Stuart JH Graham and Nicolas Van Zeebroeck, 'Comparing Patent Litigation Across Europe: A First Look' [2014] 17 Stanford Technical Law Review 655, 708. This evidence has been confirmed in another more recent study published in 2016: Katrin Cremers, Max Ernicke, Fabian Gaessler, Dietmar Harhoff, Christian Helmers, Luke McDonagh, Paula Schliessler and Nicolas van Zeebroeck, 'Patent Litigation in Europe' [2016] Eur J Law Econ, published

It cannot be denied that the EPC was successful on an unimagined scale. Within a few years of its implementation, nearly all the initial doubts were swept aside.[33] This is due to a number of factors, including the quality of its product (search and examination), which in turn increased activity and membership.[34] However, it can also be concluded that the EPC was a double-edged sword in terms of the effect it had on the patent system in Europe. Although it had the effect of promoting harmonisation in substantive patent law, and introduced a very successful patent grant procedure, it also institutionalised fragmentation in the European patent system. Prior to the introduction of a 'European' patent, rights were purely national and were litigated nationally, having no effect on the credibility of patents granted in other States – the laws were different, the search and examination procedure was different, and the courts deciding patent matters were different. However, once there was a streamlined patent grant procedure, based on a single legislative definition of patent validity, the patents validated in Contracting States were essentially the same, albeit they remained territorial. As seen in the examples above, the validity of each European patent would be tried against the provisions of the EPC as implemented in national laws, and matters of infringement would be tried against the provisions of national laws (based in some cases only on the CPC) by domestic courts applying their own rules of procedure and influenced by their own patent traditions. In this context, divergent outcomes were inevitable.

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online at <http://link.springer.com/article/10.1007/s10657-016-9529-0> accessed 30 September 2016.

33 Todd Dickinson, 'Seven Organisations Assess the Impact of the EPC' [2013] Managing Intellectual Property, Europe IP Focus <http://www.managingip.com/Article/3263177/Seven-organisations-assess-the-impact-of-the-EPC.html> accessed 30 September 2016.

34 Griset, 96.

III. THE DISSUASION OF DIVERGENCE

Despite the divergences in the implementation and interpretation of substantive patent law that have been discussed above, there is also strong evidence of a concern on the part of various Contracting States to implement these laws in line with the provisions of the EPC and jurisprudence of the Boards of Appeal of the EPO.[35]

One of the most active in this regard is the UK. As mentioned previously, section 130(7) Patents Act 1977 (UK) declares that certain provisions of the Act ought to have, as nearly as practicable, the same effects in the UK as the corresponding provisions of the EPC. However, not only is this endeavour enshrined in legislation, it can also be seen in practice. The promotion of harmonisation and cooperation is apparent in numerous decisions of the UK national courts, promoting the alignment of the interpretation of UK patent law with the provisions of the EPC.

One of these cases was *Genentech Inc.'s Patent*, where it was declared that:

> [S]ection 130(7) specifically provides that the sections have been framed so as to have the same effect as far as practical in the United Kingdom as the corresponding provisions of the European Patent Convention. If observance to this provision involves what might appear to be a heretical departure from established practice then this

[35] For a discussion of this issue from the perspective of a UK judge, see: Sir Robin Jacob, 'The Relationship between European and National Courts in Intellectual Property Law' in Ansgar Ohly and Justine Pila (eds), *The Europeanization of Intellectual Property Law: Towards a European Legal Methodology* (OUP 2013).

> must be laid at the door of the legislator, and taken as disclosing the intention of Parliament to observe the European Patent Convention.[36]

The same concept was highlighted in *Gale's Application*:

> It would be absurd if, on an issue of patentability, a patent application should suffer a different fate according to whether it was made in the United Kingdom under the Act or was made in Munich for a European patent (U.K.) under the Convention. Likewise in respect of opposition proceedings.[37]

The UK courts have also long taken the jurisprudence of the Boards of Appeal of the EPO into account. Perhaps one of the most important decisions in this regard was *Merrell Dow Pharmaceutical Inc v H.N. Norton & Co Ltd*, where the House of Lords stated:

> It is … the duty of the United Kingdom courts to construe Section 2 so that, so far as possible, it has the same effect as Article 54 [EPC]. For this purpose, it must have regard for the decisions of the European Patent Office (EPO) on the construction of the EPC. These decisions are not strictly binding upon courts in the United Kingdom but they are of great persuasive authority: first, because they are decisions of expert courts (the Boards of Appeal and the Enlarged Board of Appeal of the EPO) involved daily in the administration of the EPC and secondly, because it would be highly undesirable for the provisions of

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36 *Genentech Inc.'s Patent* [1989] RPC 147, 197.
37 *Gale's Application* [1991] RPC 305, 323.

> the EPC to be construed differently in the EPO from the way they are interpreted in the national courts of a Contracting State.[38]

The House of Lords confirmed the persuasiveness of decisions of the Boards of Appeal of the EPO in *Biogen v Medeva*.[39] Lord Hoffmann also took the opportunity in that case to clarify a misinterpretation of a Technical Board of Appeal decision[40] by the UK courts.[41] It was held that the principles governing sufficiency of disclosure applied in T 292/85 were the same as those that had long been established in the UK.[42] The effect of this aspect of Lord Hoffmann's judgment was to realign the practices of the UK courts and the Boards of Appeal of the EPO. Furthermore, it was stated that although the UK Court in *Biogen v Medeva* came to a different conclusion from the Technical Board of Appeal of the EPO, there was no divergence between the jurisprudence of the courts.[43] As pointed out by Ian Karet, the court 'went out of their way' to present the decisions of the UK courts as consistent with those of the EPO, confirming the relevance of EPO decisions in the UK.[44] In its judgment, the divergent outcomes in the case were due to the different issues that had been argued between the House of Lords and the EPO, as well as the EPO having ignored previous jurisprudence that supported the conclusion of the UK court.[45]

Biogen v Medeva and the other UK cases cited above are far from unique. The UK courts have since consistently stated that the jurisprudence of the Boards of Appeal of the EPO has strong persuasive authority in the UK, consistent with

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38 *Merrell Dow Pharmaceutical Inc v H.N. Norton & Co Ltd* [1996] RPC 76, 82.
39 *Biogen Inc. v Medeva PLC* [1996] UKHL 18.
40 T 292/85 *Genentech I/Polypeptide expression* [1989] OJ EPO 275.
41 *Molnlycke AB v Procter & Gamble Ltd* [1992] FSR 549; *Chiron Corporation v Organon Teknika Ltd* [1994] FSR 202.
42 However, this was later overturned for product patents in *Generics (UK) Ltd & Ors v H Lundbeck A/S* [2009] UKHL 12.
43 *Biogen v Medeva*, [77].
44 Ian Karet, 'Analysis: English Courts and the EPO: what next?' [1997] 2 IPQ 244, 246.
45 Karet, 246.

section 130(7) Patents Act 1977 (UK), and should therefore be considered where relevant in UK cases.[46] A further example of this being done is the UK Supreme Court's decision in *Human Genome Sciences v Eli Lilly*,[47] where the Court considered the Board of Appeal of the EPO decision concerning the same patent in great detail. However, the UK Supreme Court also stated that 'while national courts should normally follow the established jurisprudence of the EPO,' this does not mean that they must follow its reasoning – in cases where a national court believes a Board of Appeal decision is taking the law 'in an inappropriate direction,' including perhaps by misapplying previous EPO jurisprudence, or by failing to take a relevant argument into consideration, the national court may not think it best to apply this reasoning.[48] The Supreme Court stated that:

> While consistency of approach is important, there has to be room for dialogue between a national court and the EPO (as well as between national courts themselves). Nonetheless, where the Board has adopted a consistent approach to an issue in a number of decisions, it would require very unusual facts to justify a national court not following that approach.[49]

This leads on to another aspect of domestic judicial practice that promotes harmonisation and cooperation. In *Grimme v Scott*,[50] the UK Court of Appeal, in a joint judgment by Lord Justices Jacob and Etherton, emphasised the importance

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46 *Kirin-Amgen Inc v Hoechst Marion Roussel Ltd* [2004] UKHL 46 [101]; *Conor Medsystems Inc. v Angiotech Pharmaceuticals Inc.* [2008] UKHL 49 [3]; *Generics (UK) Ltd & Ors v H Lundbeck A/S* [2009] UKHL 12 [46], [86].

47 *Human Genome Sciences Inc v Eli Lilly and Company* [2011] UKSC 51 [42] – [92], [103] – [111], [114] – [115], [117] – [118], [120] – [123], [126] – [129], [134].

48 *HGS v Eli Lilly*, [87].

49 *HGS v Eli Lilly*, [87].

50 *Grimme Maschinenfabrik GmbH & Co KG v Derek Scott (t/a Scotts Potato Machinery)* [2010] EWCA Civ 1110.

of taking the decisions of other national courts into account, even if no such decisions are presented to the Court by counsel. The judges in that case decided to do some research of their own into the question of whether a case of contributory infringement had arisen. It was stated that while conducting this research, an opportunity arose that allowed them to ask judicial colleagues in Germany and the Netherlands if they had had any similar cases on the matter. In the course of that inquiry it was found, to the judges' reported astonishment, that the Dutch courts had previously considered a case concerning a man selling Scott's very own machine.[51] The court was reportedly astonished because neither party, particularly Grimme, had brought this case to their attention – they went on to say:

> Advocates should recognise that where a point of patent law of general importance, such as the construction of a provision which by Treaty (either the EPC or the Community Patent Convention) is to be implemented by states parties to those conventions, has been decided by a court, particularly a higher court, of another member state, the decision matters here. For, despite the fact that there is no common ultimate patent court for Europe, it is of obvious importance to all the countries of the European Patent Union or the parties to the Community Patent Convention ("the CPC"), that as far as possible the same legal rules apply across all the countries where the provisions of the Conventions have been implemented. An important decision in one member state may well be of strong persuasive value in all the others, particularly where the judgment contains clear reasoning on the point.

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51 *Grimme v Scott*, [77].

> Broadly we think the principle in our courts – and indeed that in the courts of other member states - should be to try to follow the reasoning of an important decision in another country. Only if the court of one state is convinced that the reasoning of a court in another member state is erroneous should it depart from a point that has been authoritatively decided there. Increasingly that has become the practice in a number of countries, particularly in the important patent countries of France, Germany, Holland and England and Wales. Nowadays we refer to each other's decisions with a frequency which would have been hardly imaginable even twenty years ago. And we do try to be consistent where possible.
>
> The Judges of the patent courts of the various countries of Europe have thereby been able to create some degree of uniformity even though the European Commission and the politicians continue to struggle on the long, long road which one day will give Europe a common patent court.[52]

As well as advocates being encouraged to divulge decisions from other courts on the same issues, the court has also re-emphasised the importance of taking the decisions of other national courts into consideration. As seen above, this practice of drawing on case law from other Contracting States to the EPC when interpreting aspects of European patent law was also encouraged in *Human Genome Science v Eli Lily*.

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[52] *Grimme Maschinenfabrik GmbH & Co KG v Derek Scott (t/a Scotts Potato Machinery)* [2010] EWCA Civ 1110 [79] – [81].

The cases referred to above are all from the UK courts; however, the judicial concern with promoting harmonisation also exists in other states. In Germany, the German Supreme Court has ruled that not only do German national courts have to take the decisions of the Boards of Appeal of the EPO into account, but went further and stated that they must also consider the decisions of other national courts relating to similar subject matter. The former requirement was first introduced by the German Supreme Court in the *Zahnkranzfräser* case.[53] This decision was subsequently confirmed and expanded in the *Walzenformgebungsmaschine* case.[54] In the latter case, the German Supreme Court also stated that the German national courts, if diverging from another decision regarding similar issues, must where appropriate, give reasons as to why this divergence is occurring.[55] However, a caveat was also announced. The German Supreme Court expressed that the German courts were not bound by these decisions, and that any case that deviated from similar judgments was not automatically defective, and this would not necessarily be an appropriate reason for appeal to the German Supreme Court.[56]

Contracting State courts look, as their laws require them to do, to the EPC for guidance. They also take into account the decisions of the Boards of Appeal of the EPO and other national courts. However, the Contracting States are not alone in their attempts to reduce the risks arising from the fragmentation that have been introduced into the European patent system by the EPC. The EPO also plays a key role: first, by instigating and organising the biennial European Patent Judge's

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53 Decision of the Bundesgerichtshof, 5 May 1998 (X ZR 57/96) – 'Zahnkranzfräser (*Gear rim mill*)'.

54 Decision of the Bundesgerichtshof, 15 April 2010 (Xa ZB 10/09) – 'Walzenformgebungsmaschine (*Roller-forming-machine*)'.

55 Luginbuehl, 11.

56 An English summary of the Walzenformgebungsmaschine case was provided by: Bardehle Pagenberg, IP Report III [2011] <http://www.eplawpatentblog.com/2010/October/Walzenformgebungsmaschine.pdf> accessed 30 September 2016.

Symposium; second, by using various interpretative methods and thus being willing to take into account the reasoning of national courts in the decisions of the Boards of Appeal; and finally, by having a number of national judges acting as external members of the Enlarged Board of Appeal.

In 2014, the Judges' Symposium met for the 17th time since its inauguration in 1982.[57] The reasoning behind the symposium was put forward as a question by Friedrich-Karl Beier in the first of these meetings:

> [T]he question necessarily follows, how this harmony of law, which is intended by the legislatures and which has already been achieved at the level of enacted legislation, can now be achieved and safeguarded in judicial practice as well. And does the idea of judicial cooperation within Europe not necessarily follow, of looking more often beyond the limits of one's own jurisdiction, of fortifying the exchange of ideas amongst all of the judges who in future will have to apply the same new European patent law, who will decide the same questions and confront the same problems?[58]

Beier went on to say that European patent law will be shaped by case law, and that 'its true contours will emerge only from a multiplicity of individual decisions'.[59] The Judges' Symposium has been answering Beier's original question ever since. Every two years, judges involved in patent law from all avenues – national courts, the Boards of Appeal of the EPO, and representatives from the Court of Justice of the European Union (CJEU) – come together and discuss developments in patent case law and legislation, in order to continually

57 17th European Patent Judges' Symposium, [2015] Supplementary Publication, OJ EPO 5.
58 Friedrich-Karl Beier, 'Judicial Cooperation in European Patent Law' [1983] 6 IIC 707, 711.
59 Beier, 712.

develop and build on the initial reason for the Symposium: judicial cooperation across Europe. This is an extremely important event for the harmonisation of European patent law. There are also working sessions wherein potential problems are raised and discussions held on how they might be handled; every session involves presentations from national judges; and since 1994, presentations have been given on certain case studies intended to highlight some difficulties in deciding patent law cases and how these cases could be decided. For example: in 2010 the case of a patent application for a folding attic stairs was discussed, and the question whether the manufacturer's act of allowing members of the public onto his premises, not on terms of confidence, where they could see the product still under development, would deprive the product of novelty so as to invalidate the patent application for it.[60] These meetings will presumably continue to take place and if they do, will continue to serve the aim of European integration in the patent field by promoting the harmonisation of substantive patent law and procedure by informal means.

The EPO also uses various methods when interpreting the provisions of the EPC that promote harmonisation. The main method of interpretation used is that conveyed in the Vienna Convention 1969.[61] As seen in Chapter Five, Articles 31 and 32 of the Vienna Convention provide guidance on the interpretation of treaties. While the Vienna Convention was enforced in 1980 and only applies to treaties concluded after the entry into force of the Convention, the Boards of Appeal of the EPO have nonetheless applied its rules in numerous decisions. In an Enlarged Board of Appeal decision, G 5/83, it was stated that:

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60 15th European Patent Judges' Symposium, [2011] Special Edition, OJ EPO 1, 275.

61 Vienna Convention on the Law of Treaties (Vienna, 23 May 1969, 1155 UNTS 331) (Vienna Convention).

> [T]here are convincing precedent for applying the rules for interpretation of treaties incorporated in the Vienna Convention to a treaty to which in terms they do not apply… After a careful study of the whole subject, the Enlarged Board of Appeal concludes that the European Patent Office should do the same.[62]

The result is a commitment by the EPO to interpreting the provisions of the EPC in good faith and according to their ordinary meaning, in their context, including in light of the object and purpose of the EPC, unless they can be shown to have been intended by the Contracting States to have a special meaning.[63]

In addition, the Board in G 5/83 went on to say that 'in the interpretation of international treaties which provide a legal basis for the rights and duties of individuals and corporate bodies', which is the case with the EPC, it is 'necessary to pay attention to questions of harmonisation of national and international rules of law'.[64] It was expressed that this aspect of interpretation is not dealt with by the provisions of the Vienna Convention but 'is particularly important where the provisions of an international treaty', such as the EPC, 'have been taken over into national legislation'.[65] Most significantly, the Enlarged Board of Appeal stated:

> [I]t is incumbent upon the European Patent Office, and particularly its Boards of Appeal, to take into consideration the decisions and expressions of opinion of courts and industrial property offices in Contracting States.[66]

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62 G 5/83 *Second medical indication* of 5.12.1984, Reasons, 4.
63 G 2/08 *Dosage regime/ABBOTT RESPITORY* of 19.2.2010.
64 G 5/83, Reasons, 6.
65 G 5/83, Reasons, 6.
66 G 5/83, Reasons, 6.

Therefore, it can be seen that the Boards of Appeal of the EPO also promote the harmonisation of European patent law, and as G 5/83 displays, they are willing to take into account the reasoning and interpretation of European patent laws of Contracting State courts.

Although this practice appears to be unequivocal, there have been subsequent cases in which the Enlarged Board of Appeal has introduced some reservations to this statement; for example, in the case that the national law approach contravenes the intention of the EPC. In G 1/13 the Enlarged Board of Appeal stated that:

> There are of course limits on the extent to which the EPO should follow national law. For example, a provision of national law which purported to confer on a company procedural rights which were contrary to the EPC could not be acknowledged by the EPO.[67]

The Technical Boards of Appeal have also discussed this issue and have come to the conclusion that considerations of harmonisation do not exonerate a board from its duty to act as an independent judicial body with the function of interpreting the EPC and, to decide in the last instance matters relating to patent grant.[68] Furthermore, the emphasis placed on interpreting the EPC with a view to promoting harmonisation has been criticised because not all national laws are harmonised and therefore it would be impossible to decide which interpretation from which national court the Boards of Appeal of the EPO ought to follow.[69]

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67 G 1/13 *Admissibility of referral* of 25.11.2014, Reasons, 8.

68 T 154/04 *Estimating sales activity/DUNS LICENSING ASSOCIATES* of 15.11.2006, Reasons, 3.

69 T 452/91 of 5.07.1995, Reasons, 5.4.1.

Additionally, national decisions have no binding effect on the Boards of Appeal. The EPC is the only source of law that is binding on the EPO. Therefore, proceedings before the EPO are decided in accordance with the EPC and even if the reasoning of a national court would lead the EPO to the same conclusion, the Board must first apply the provisions of the EPC and assess the jurisprudence of the Boards of Appeal in order to make a final decision.[70] This explains why, in practice, national decisions are still rarely explicitly taken into consideration and why, for the Boards of Appeal, the EPO has the final say in matters relating to the interpretation of the EPC.

Finally, the harmonisation of the interpretation of the EPC and the national laws based on it is further promoted by the appointment of external members to the panel of the Enlarged Board of Appeal.[71] External members are national court judges who can be appointed to the panel of the Enlarged Board of Appeal in cases where the scope of a matter referred extends beyond the internal administration of the EPO.[72] Along similar lines, judicial internships are also available for national judges of the Contracting States at the Boards of Appeal of the EPO. These internships promote equal access to training and provide the opportunity to undertake an intensive course on patentability and procedures at the EPO and the opportunity to 'shadow' a member of the Technical Board of Appeal. In doing so, they enable national judges to experience the practices of the EPO, which can then be filtered back to their own national courts.

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70 T 452/91 of 5.07.1995, Reasons, 5.4.1.

71 Luginbuehl, 145.

72 Article 11(5) EPC: The Administrative Council, after consulting the President of the European Patent Office, may also appoint as members of the Enlarged Board of Appeal legally qualified members of the national courts or quasi-judicial authorities of the Contracting States, who may continue their judicial activities at the national level.

IV. AREAS OF CONTINUED DIVERGENCE

Despite the strides taken towards harmonisation by the formal and informal mechanisms outlined above, areas of substantive divergence remain. Not all Contracting State courts have aligned their jurisprudence with that of the Boards of Appeal of the EPO. Further, even if EPO jurisprudence is taken into account, differences in final decisions can arise, as seen in cases concerning the construction of claims, and in *Biogen v Medeva* above. However, when a disagreement arises, in certain circumstances the courts will often give an explanation as to why they have taken a divergent approach. This indicates a recognition on the part of individual judges that they are legally accountable for these decisions because of the obligation for courts to take the provisions of certain international agreements into account, which is an inherent part of signing up to the EPC.[73] This was seen in *Biogen v Medeva*, but also in the German *Walzenformgebungsmaschine* case. Nevertheless, inconsistent decisions are reached from time to time.

Between the EPO and the UK, there are two areas in which this divergence is apparent and continues to exist. The first area concerns the patentability requirement of inventive step, and the second concerns the patentability requirement of inherent patentability.

The criteria for patentability are enshrined in both Article 52 EPC and section 1(1) Patents Act 1977 (UK). One of the requirements is that an invention involves an inventive step. According to Article 56 EPC and section 3 Patents Act 1977 (UK), this criterion will be fulfilled if, and only if, with regard to the state of the art, the invention is not obvious to the person skilled in the art. There are

[73] This is even truer for the UK owing to section 130(7) Patents Act 1977 (UK).

slight variations in the wording of these provisions; however, section 3 is included in section 130(7) Patents Act 1977 (UK) which, as previously mentioned, states that it is to have the same effect in the UK, as nearly as practicable, as the corresponding provision in the EPC.

However, the approach by which the various tribunals decide whether or not there has been an inventive step differ – in the UK, the *Windsurfing/Pozzoli*[74] approach is used, whereas the EPO uses the problem and solution approach.

The UK approach involves a four-step test, introduced by the Court of Appeal in *Windsurfing International v Tabur Marine*, in order to assess the question of obviousness without the benefit of hindsight, rather, by hypothesising what would have been obvious at the priority date to the person skilled in the art.[75] This test was elaborated upon and restated by Lord Justice Jacob in *Pozzoli*[76] and this new formulation is to be used alongside the *Windsurfing* approach – hence, the *Windsurfing/Pozzoli* test.[77] Essentially, the test in both instances requires the identification of the person skilled in the art, his relevant common general knowledge, the inventive concept of the claim and what differences exist between the state of the art and the inventive concept. Once these are identified, the question asked is: viewed without any knowledge of the alleged invention as claimed, do those differences constitute steps which would have been obvious to the person skilled in the art or do they require any degree of invention?[78]

The EPO applies, in all but exceptional cases, the problem and solution approach, first established in T 1/80 *Bayer/Carbonless copying paper*.[79] According to the current EPO Guidelines for Examination, there are three main

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74 *Windsurfing International Inc. v Tabur Marine (Great Britain) Ltd* [1985] RPC 59; *Pozzoli SPA v BDMO SA* [2007] EWCA Civ 588.
75 *Windsurfing International v Tabur Marine*, 71.
76 *Pozzoli*, 878.
77 Intellectual Property Office, Manual of Patent Practice, March 2016 (UK), Section 3.12.
78 Step 4 of both *Windsurfing* and *Pozzoli*.
79 T 1/80 *Bayer/Carbonless copying paper* of 6.4.1981.

steps – determining the closest prior art, establishing the objective technical problem to be solved, and considering whether or not the claimed invention, starting from the closest prior art and the objective technical problem, would have been obvious to the person skilled in the art.[80] The technical problem refers to 'the aim and task of modifying or adapting the closest prior art to provide the technical effects that the invention provides over the closest prior art'.[81] If there is no technical contribution over the closest prior art, the invention is obvious.

For current purposes, what matters about these approaches to determining inventive step is the differences between them and the impact this difference has in practice. The problem and solution approach has not only been criticised by the UK courts, which have refused to apply it,[82] but also by a Technical Board of Appeal of the EPO.[83] The approach is criticised mainly for its reliance on hindsight, its limitation in assessment to one prior art matter (the closest prior art), and its artificiality in cases where an invention breaks new ground.[84] Lord Justice Jacob has also stated that the approach may make sense in the context of an examining office, but when it comes to a national court making a full multi-factorial assessment of all relevant factors, it may not be as applicable.[85] However, some commentators have argued that there are similarities between the problem and solution approach and aspects related to the UK test, particularly the obvious-to-try test.[86] Lord Justice Jacob, although a critic of the problem and solution approach, has also expressed this alternative point of view. In *Generics (UK) Ltd v Daiichi Pharmaceutical Co Ltd*, he observed:

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80 EPO, Guidelines for Examination, November 2015, G.VII.5.
81 EPO, Guidelines for Examination, November 2015, G.VII.5.2.
82 *Actavis UK Ltd v Novartis AG* [2010] EWCA Civ 82.
83 T 465/92 *Alcan/Aluminium alloys* of 14.10.1994
84 *Actavis UK Ltd v Novartis AG* [2010] EWCA Civ 82.
85 See, for example: *Actavis UK Ltd v Novartis AG* [2010] EWCA Civ 82 [25] – [50].
86 Paul England and Scott Parker, 'Obviousness in the new European order' [2012] 7(11) JIPLP 805.

> Some have suggested that [*Windsurfing/Pozzoli*] is different from the EPO's problem/solution approach. It is not. The problem/solution approach only applies at stage four. The first three stages must be carried out implicitly as much for the problem/solution approach as for any other.[87]

It can be argued that the differences in these two approaches would not result in a divergent outcome when taking a holistic view of the examination for patentability, because, this is not the only area of substantive patent law in which there is a divergence in approach.

When deciding on inherent patentability, the UK and the EPO also take a different approach. In both jurisdictions, a positive definition of what an invention is does not exist in legislation.[88] Alternatively, examples of non-patentable subject matter are listed in Article 52(2) EPC and section 1(2) Patents Act 1977 (UK) – this includes discoveries, scientific theories, mathematical methods, aesthetic creations, schemes, rules and methods for performing mental acts, playing games or doing business, computer programs, and presentations of information (all not deemed to be 'inventions').[89] However, according to subsection (3) of both provisions, these activities are only excluded 'as such'. Once more, the wording of these provisions is not identical, however, section 1(2) is also subject to section 130(7) Patents Act 1977 (UK). Despite the fact that the provisions should have the same effects in both the UK and at the EPO, the manner in which they are interpreted and applied differs.

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87 *Generics (UK) Ltd v Daiichi Pharmaceutical Co Ltd* [2009] EWCA Civ 646 [20].

88 For a detailed discussion on the requirement of an invention in patent law, see: Justine Pila, *The Requirement for an Invention in Patent Law* (OUP 2010).

89 Literary, dramatic, musical or artistic works are also explicitly excluded from patentability in the Patents Act 1977 (UK) – these works fall under 'aesthetic creations' in the EPC provision.

It has been stated that a positive definition of what an invention is, does not exist in legislation; however, attempts to clarify what is meant by the term 'invention' have been attempted by the courts. The most relevant in this regard is the *Red Dove* case, in which the nature of an invention was defined for pre-EPC German law.[90] The German Supreme Court defined an 'invention' as requiring a 'technical teaching', which was subsequently characterised as 'a teaching to methodically utilize controllable natural forces to achieve a causal, perceivable result'.[91] Subsequently, in 2010, the Enlarged Board of Appeal stated that the standard set by *Red Dove* 'still holds good today and can be said to be in conformity with the meaning of the EPC'.[92] However, courts in the UK have not yet considered its applicability in the UK.

The current approach in the UK towards inherent patentability, the 'technical contribution' approach, originates from the EPO Guidelines for Examination and was first applied in a decision of a Technical Board of Appeal of the EPO – T 208/84 *VICOM/Computer-related invention*.[93] The decisive aspect of this approach is what technical contribution the invention, as defined in the claim, and when considered as a whole, makes to the known art. The technical contribution approach, as set forth in *VICOM*, was adopted by the UK in *Genentech's Patent*[94] and essentially confirmed in *Merrill Lynch*,[95] *Gale's*

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90 Decision of the Bundesgerichtshof, 27 March 1969 (X ZB 15/67) – 'Rote Taube (*Red Dove*)'.

91 *Red Dove*, Reasons 3.

92 G 2/07 *Broccoli/PLANT BIOSCIENCE* of 09.12.2010 and G 1/08 *Tomatoes/STATE OF ISRAEL* of 09.12.2010, Reasons 6.4.2.

93 T 208/84 *VICOM/Computer-related invention* [1987] EPOR 74.

94 *Genentech's Patent* [1989] RPC 147.

95 *Merrill Lynch's Application* [1989] RPC 561.

Application,[96] and *Fujitsu*.[97] In affirming it, the UK courts aligned themselves with the approach that was then being taken by the EPO.[98]

However, the EPO subsequently abandoned the 'technical contribution' approach and adopted a new approach. Instead of a 'technical contribution', the EPO now requires that a subject matter has a 'technical character' in order to be capable of supporting a patent, and whether it does, is assessed separately and independently of the remaining requirements of patentability, such as novelty and inventive step.[99] The reasoning behind this change in approach was because the assessment of technical character can be achieved without any recourse to the prior art.[100] When deciding on the technical character of an invention, and thus whether it fulfils the initial requirement of inherent patentability, the EPO follows the above decision(s) of the Enlarged Board of Appeal (G 2/07 and G 1/08), consistent with its support for the approach adopted in the *Red Dove* case.

There is also a short-cut approach adopted by the EPO for the determination of inherent patentability for computer programs specifically – the 'any hardware' approach, established in T 931/95 *PBS PARTNERSHIP/Controlling pension benefits system*.[101] Originally, this approach was introduced in order to deal with certain apparatus claims. In this case it functioned as a requirement for a suitably programmed computer or system for carrying out a method outside the scope of Article 52(c) EPC. It was held that such a computer or system would have 'the character of a concrete apparatus in the sense of a physical entity, man-made for a utilitarian purpose' and therefore be

96 *Gale's Application* [1991] RPC 305.
97 *Fujitsu's Application* [1997] RPC 608.
98 There were variations in the way in which this test was adopted but in all cases 'technical effect' was the important factor.
99 European Patent Office, *Case Law of the Boards of Appeal of the European Patent Office* (8th edition, Druckerei CH Beck 2016) I.A.1.2.
100 European Patent Office, *Case Law of the Boards of Appeal of the European Patent Office* (8th edition, Druckerei CH Beck 2016) I.A.1.4.1.b.
101 T 931/95 *PBS PARTNERSHIP/Controlling pension benefits system* [2002] EPOR 522.

an invention for the purpose of the EPC.[102] However, this distinction between method claims and apparatus claims was blurred[103] and eventually disappeared altogether.[104] Subsequently, the 'any hardware' approach began to be used for both apparatus claims and method claims, confirming that the requirement for an invention in the case of computer-related subject matter is very easy to satisfy. Essentially, any subject matter that is, or is involved in the use of, a concrete apparatus, such as a programmed computer, will avoid exclusion for being a 'computer program as such' under Article 52(2)(c) and (3) EPC.

In 2006, the UK Court of Appeal rejected the EPO 'any hardware' approach in the *Aerotel/Macrossan* joined appeal.[105] The Court of Appeal considered three approaches and instead of following the jurisprudence of the EPO, followed common law rules of precedence, and continued to use the 'technical contribution' approach supported by earlier Courts of Appeal. However, in order to simplify its application, a four-step test was established. According to that test a claim must be properly construed and the actual contribution identified. It is then asked whether the actual contribution falls solely within the excluded subject matter. Finally, the court checks whether the actual or alleged contribution is actually technical in nature.[106]

An important side note is appropriate here. In *Aerotel/Macrossan* the UK Court of Appeal attempted to make a 'reference' to the Enlarged Board of Appeal of the EPO via the President of the EPO.[107] A Board of Appeal can refer questions to the Enlarged Board either of its own motion or following a request from a

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102 T 931/95 *PBS PARTNERSHIP/Controlling pension benefits system* [2002] EPOR 522, Reasons 5.

103 T 258/03 *HITACHI/Auction Method* [2004] EPOR 55.

104 T 424/03 *MICROSOFT/Data transfer with expanded clipboard formats* [2006] EPOR 39.

105 *Aerotel Ltd. V Telco Holdings Ltd & Ors Rev 1* [2006] EWCA Civ 1371.

106 This test was subsequently modified in *Symbian Ltd v Comptroller General of Patents, Designs and Trademarks* [2008] EWCA Civ 1066, discussed below.

107 For more detail on this issue, see, for example: Justine Pila, 'Software Patents, Separation of Powers and Failed Syllogisms: A Cornucopia from the Enlarged Board of Appeal of the European Patent Office' (2011) 70(1) The Cambridge Law Journal 203.

party, if it is required to ensure uniform application of the law, or if a point of law of fundamental importance arises.[108] The President of the EPO may also refer a point of law, however, only where two Boards of Appeal have given different decisions on that question.[109] In *Aerotel/Macrossan*, the Court of Appeal proposed some questions regarding the patentability of computer programs:

> It is formally no business of ours to define questions to be asked of an Enlarged Board of Appeal. What we say now is only put forward in case the President of the EPO finds it helpful. If he thinks it pointless or arrogant of us to go this far, he is of course entirely free to ignore all we say. Nonetheless in hope that there is a spirit of co-operation between national courts and the EPO we ventured to ask the parties what questions might be posed by the President of an Enlarged Board pursuant to Art. 112.[110]

The then President of the EPO, Alain Pompidou, replied and made no reference to the Enlarged Board; however, the next President, Alison Brimelow, did so in G 3/08.[111] The questions were found to be inadmissible.[112] It was a disappointing reference for Lord Justice Jacob, who had made the 'referral' in the first place, because the questions that were referred to the Enlarged Board of Appeal did not reflect those that had been proposed in *Aerotel/Macrossan* and, the conflicting decisions identified by the UK court had not been very well explained; the experiment came to nothing.[113] This is unfortunate – it would have been a great

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108 Article 112(1)(a) EPC.
109 Article 112(1)(b) EPC.
110 *Aerotel/Macrossan*, [75].
111 Jacob, in Ohly and Pila, 196.
112 G 3/08 *Programs for computers* of 12.5.2010.
113 Jacob, in Ohly and Pila, 196.

step forward for judicial cooperation if national courts were authorised to refer questions to the Boards of Appeal of the EPO on points of law arising under the EPC. This would allow for an even more consistent approach to the interpretation of the provisions of the EPC and would reduce the risks associated with the fragmentation that the EPC institutionalised. According to Luginbuehl, however, it would also require amendment of the EPC to put a greater distance between the EPO (as an examining authority) and the Enlarged Board of Appeal (as a decision making body), the Boards currently being part, rather than independent, of the EPO.[114]

After *Aerotel/Macrossan*, the Court of Appeal in *Re Symbian's Application*[115] again refused to follow the jurisprudence of the EPO, even after the Court of Appeal's decision in *Actavis v Merck*, which stated that Courts could break precedence to align with the EPO if satisfied that the Boards of Appeal of the EPO had formed a settled view on a matter of law.[116] However, in *Symbian v Comptroller General of Patents, Designs and Trademarks*,[117] Lord Neuberger was of the opinion that both approaches could be reconciled as a matter of broad principle. He stated that by conflating the third and fourth step of the *Aerotel/Macrossan* approach, the test could amount to the same as that of the EPO.[118] Furthermore, he emphasised that 'there is a need for a two-way dialogue between national tribunals and the EPO, coupled with a degree of mutual compromise', and that there must be an attempt to ensure that that the consequent differences in terms of the outcome in particular patent cases are minimised.[119]

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114 Luginbuehl, 144.
115 *Re Symbian's Application* [2009] RPC 1.
116 *Actavis UK Ltd v Merck & Co Inc* [2008] RPC 26.
117 *Symbian v Comptroller General of Patents, Designs and Trademarks* [2008] EWCA Civ 1066.
118 *Symbian v Comptroller General of Patents, Designs and Trademarks* [2008] EWCA Civ 1066 [11].
119 *Symbian v Comptroller General of Patents, Designs and Trademarks* [2008] EWCA Civ 1066 [61].

Nevertheless, both approaches of the UK and the EPO to inherent patentability have been criticised. The EPO has criticised the 'technical contribution' approach for introducing issues of inventive step into the question of whether there is patentable subject matter.[120] Additionally, the UK has criticised the 'technical character' approach for setting the patentability bar too low. However, both the EPO and UK courts seem to agree that when considered alongside the other requirements of patentability, there is unlikely to be any divergence in the outcome of individual cases overall.[121] The main reason is the EPO's requirement that for an invention to be inventive, it must be inventive by reason of its technical aspects only.[122] Therefore, an application could fulfil the requirement of having 'technical character' at the EPO and therefore be an invention; however, it may still fail under the test for inventive step, which takes into account the 'objective technical problem' to be solved by the invention. Taking a holistic view, therefore, both the UK and the EPO require that a subject matter make a technical contribution in order to be patentable, albeit at different stages of examination.

Another relevant aspect with regard to areas of divergence relates to the procedural law of national courts. Decisions of national courts on whether or not to allow a stay of proceedings in circumstances in which a parallel case is pending before the EPO can have an impact in this regard.[123] In the UK, the decision on whether or not to grant a stay of proceedings depends on a number of factors.

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120 *PBS PARTNERSHIP/Controlling pension benefits system* admitted a low hurdle for patentability but re-iterated that the requirement for technicality would be required to pass the threshold of inventive step.

121 Nicholas Fox and William Corbett, 'UK and EPO approaches to excluded subject matter and inventive step: are Aerotel and Pozzoli heading for the rocks?' [2014] 36(9) EIPR 569, 573.

122 T 641/00 Two identities/COMVIK of 26.9.2002.

123 For a discussion on this topic with a focus on post-trial amendments in the UK, see: Paul England, 'Parallel patent proceedings between the European Patent Office and UK courts' [2015] 10(7) JIPLP 509.

Following the Supreme Court judgment in *Virgin Atlantic v Zodiac*,[124] in which the previous *Glaxo* guidance on whether a stay of proceedings should be granted was questioned,[125] the Court of Appeal recast the guidance in *IPCom*.[126] It was confirmed that the default position of the UK courts is that in the case of parallel proceedings, a stay will be granted;[127] however, commercial certainty, amongst other factors, may favour allowing the UK proceedings to continue.[128] This modified test was subsequently applied in four cases of relevance.

The first was *Samsung v Apple*,[129] wherein an amendment was filed at the EPO prior to an appeal case in the UK courts. The UK Court of Appeal, when deciding whether or not to stay proceedings, took into account that the EPO limitation procedure is relatively quick compared to that of opposition proceedings, and that this was likely to be concluded prior to the UK proceedings. In doing so, it allowed a stay of proceedings. In *Starsight and Rovi v Virgin Media*,[130] which concerned a late-filed central amendment to the EPO, the Court decided to adjourn the proceedings relating to the patent in question to await the result of the amendment application. However, the fact that infringement was no longer an issue was of particular relevance in making this decision.[131]

The situation differs in relation to opposition proceedings. In *Fontem v Ten Motives*,[132] an opposition was pending before the EPO. It was stated, relying on *IPCom*, that the essential point to grasp is that the discretion to grant a stay must be exercised to achieve a balance between the parties, having regard to all the relevant circumstances of the particular case. If there are no other factors, a

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124 *Virgin Atlantic Airways Ltd v Zodiac Seats UK Ltd* [2013] UKSC 46.
125 *Glaxo Group Ltd v Genentech Inc* [2008] EWCA Civ 23.
126 *IPCom GmbH & Co Kg v HTC Europe Co Ltd & Ors* [2013] EWCA Civ 1496 [68].
127 *IPCom*, [62].
128 *IPCom*, [68].
129 *Samsung Electronics Co LTD v Apple Retail UK LTD & Anor* [2014] EWCA Civ 250.
130 *Starsight Telecast, Inc & Ors v Virgin Media Ltd & Ors* [2014] EWHC 1793 (Pat).
131 *Starsight and Rovi v Virgin Media*, [32].
132 *Fontem Holdings 1BV and Fontem Ventures v Ten Motives and 10 Motives Limited* [2015] EWHC 2752 (Pat).

stay of national proceedings pending the determination of concurrent proceedings at the EPO concerning the validity of the patent is the default option.[133] However, owing to a number of factors, including the likely length of the stay if granted, as well as the rapid development of the industry in question, Norris J refused a stay of proceedings.[134]

One of the most recent cases to deal with the issue of a stay of proceedings was *Eli Lilly v Janssen*.[135] In another refusal, the factors taken into account included the relative likely timings of the English and EPO proceedings and whether Eli Lilly would be prejudiced by significant commercial uncertainty. Justice Rose considered that due to the advanced stage of the EPO proceedings and the early stage of the English proceedings, it would be likely that the EPO decision on validity would be available before the result of the English proceedings.[136] Nevertheless, it was concluded that the EPO proceedings would not be determinative of all issues between the parties in the case at hand and so the English proceedings ought to go ahead to assess infringement issues.[137]

The overall conclusion that can be drawn from these cases is that the English courts will consider the fact that concurrent proceedings are taking place at the EPO. However, owing to the number of factors that can be taken into consideration, especially the fact that many cases before the English courts will involve the additional issue of infringement, although stays of proceedings may be the default position, they are often refused. A change was foreseen in the practice of the English courts post-*Virgin Atlantic*,[138] where stays had only been granted when the result of the EPO was in sight; however, this has not yet been

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133 *Fontem v Ten Motives*, [30].
134 *Fontem v Ten Motives*, [37] – [45].
135 *Eli Lilly and Company v Janssen Sciences Ireland UC (Formally Janssen Alzheimer Immunotherapy)* [2016] EWHC 313.
136 *Eli Lilly v Janssen*, [23].
137 *Eli Lilly v Janssen*, [38].
138 Jacob, in Ohly and Pila, 193.

the case in practice. Unless there is a change in practice towards this issue, the risk remains that patents could be revoked at European level after they have been declared valid and infringed at national level.

In summary, the practice of the UK courts and the EPO differs in two areas of substantive patent law interpretation. Although these divergences may not make a difference when taking a holistic view towards the examination of patentability, the risks of fragmentation, in the form of potential inconsistent decisions, makes such methods such as judicial cooperation, comparative reasoning, and allowing a stay of proceedings to enable proceedings before the EPO to be resolved before they continue before domestic courts, especially important.

V. CONCLUSION

The EPC was implemented in order to promote harmonisation and cooperation in European patent law. It introduced some significant changes for Contracting States; however, it was truly successful in fulfilling and surpassing its aim to introduce an efficient patent grant procedure.

As well as being highly successful in achieving its aims, the EPC has also institutionalised a certain fragmentation within the European patent system. This is due primarily to its limited substantive law coverage, its failure to have replaced national laws, and its failure to have instituted a unified litigation system for Europe. However, from the evidence gathered, it can be seen that the methods described in the previous chapter of this thesis for mitigating the risks of fragmentation in the international realm are also being used to reduce the risks of fragmentation in the European patent field. Examples include: the EPO's use of

the rules governing the interpretation of treaties contained in the Vienna Convention; the active dialogue that exists between national court judges, facilitated by regular meetings between them for the purpose of discussing developments and issues in patent law; the commitment of judges to comparative reasoning and research, even in cases where counsel does not cite authorities from other jurisdictions; and the attempt by courts to explain any divergences in their outcomes from those reached by other European courts. While these methods have not produced a complete harmonisation of substantive patent law in Europe, they have gone a significant way to reducing the risks raised by the fragmentation introduced into the European patent field by the introduction of the EPC.

CHAPTER EIGHT: FRAGMENTATION AND SUBSTANTIVE PATENT LAW

II

I. INTRODUCTION

Following on from the investigation in the previous chapter, this chapter will discuss the impact of fragmentation on the European patent field, including on substantive patent law, as a consequence of the involvement of the European Union (EU). In doing so, it will test the suggestion of international legal scholars above, that fragmentation is not necessarily a negative aspect of an international legal system but rather a positive one, from another perspective. Following the development of the doctrine of exhaustion, mentioned previously, the EU did not play a significant role in the European patent field until the conclusion of the Directive on the legal protection of biotechnological inventions (Biotech Directive)[1] and the decisions of the Court of Justice of the European Union (CJEU) in two significant cases – *GAT v LUK* and *Roche v Primus*.[2] This chapter will involve an investigation similar to that in Chapter Seven, focusing on the interface and relationship between the new and existing European patent systems, as well as the impact of decisions made by the various European patent tribunals. The resulting analysis will add to an examination of whether the fragmentation likely to be introduced by the proposed European unitary patent system can be expected to have negative consequences for the European patent system more generally.

The initial involvement of the EU in patent law stemmed from a need to reconcile the territoriality of intellectual property rights with the free movement principles contained in the EU Treaties. Since then, the EU has been extremely active in the fields of trade mark, design and copyright law; however, the same

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1 Council Directive 98/44/EC of the European Parliament and of the Council of 6 July 1998 on the legal protection of biotechnological inventions [1998] OJ L 213/13 (Biotech Directive).

2 Case C-4/03 *Gesellschaft für Antriebstechnik mbH & Co. KG. v Lamellen und Kupplungsbau Beteiligungs KG* ECLI:EU:C:2006:457 (*GAT v LUK*) and Case C-539/03 *Roche Nederland BV v Frederick Primus* ECLI:EU:C:2006:458 (*Roche v Primus*).

cannot be said for patent law. Substantive trade mark law has almost been completely harmonised due to the implementation of the Trade Marks Directive and Trade Marks Regulation,[3] as well as their interpretation by the CJEU and national courts (although not without critique).[4] The law relating to the protection of designs has also been substantially harmonised across the EU.[5] Finally, copyright law has been subject to ten EU directives, which have resulted in a piecemeal harmonisation of most aspects of substantive copyright law.[6]

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[3] Council Directive 2008/95/EC of the European Parliament and of the Council of 22 October 2008 to approximate the laws of the Member States relating to trade marks [2008] OJ L 299/25 – reformed in 2015 by Council Directive 2015/2436 of the European Parliament and of the Council of 16 December 2015 to approximate the laws of the Member States relating to trade marks (Recast) [2015] OJ L 336/1; Council Regulation 207/2009 of 26 February 2009 on the Community trade mark [2009] OJ L 78/1 – reformed in 2015 by Council Regulation 2015/2424 of the European Parliament and of the Council of 16 December 2015 amending Council Regulation 207/2009 on the Community trade mark and Commission Regulation 2868/95 implementing Council Regulation 40/94 on the Community trade mark, and repealing Commission Regulation 2869/95 on the fees payable to the Office for Harmonisation in the Internal Market (Trade Marks and Designs) [2015] OJ L 341/21.

[4] Graeme Dinwoodie, 'The Europeanization of Trade Mark Law' in Ansgar Ohly and Justine Pila (eds), *The Europeanisation of Intellectual Property Law: Towards a European Legal Methodology* (OUP 2013) 76.

[5] Council Directive 87/54/EEC of 16 December 1986 on the legal protection of topographies of semiconductor products [1986] OJ L 24/36 (Semiconductor Directive); Council Directive 98/71/EC of the European Parliament and of the Council of 13 October 1998 on the legal protection of designs [1998] OJ L 289/98 (Designs Directive); and Council Regulation (EC) 6/2002 of 12 December 2001 on Community designs [2002] OJ L 3/1 (Community Designs Regulation).

[6] Council Directive 93/83/EEC of 27 September 1993 on the coordination of certain rules concerning copyright and rights related to copyright applicable to satellite broadcasting and cable retransmission [1993] OJ L 248/15 (Satellite and Cable Directive); Council Directive 96/9/EC of the European Parliament and of the Council of 11 March 1996 on the legal protection of databases [1996] OJ L 77/20 (Database Directive); Council Directive 2001/29/EC of the European Parliament and of the Council of 22 May 2001 on the harmonisation of certain aspects of copyright and related rights in the information society [2001] OJ L 167/10 (Infosoc Directive); Council Directive 2001/84/EC of the European Parliament and of the Council of 27 September 2001 on the resale right for the benefit of the author of an original work of art [2001] OJ L 272/32 (Resale Right Directive); Council 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 195/16 (Enforcement Directive); Council Directive 2011/77/EU of the European Parliament and of the Council of 27 September 2011 amending Council Directive 2006/116/EC on the term of protection of copyright and certain related rights [2011] OJ L 265/1 (Term Directive); Council Directive 2006/115/EC of the European Parliament and of the Council of 12 December 2006 on rental right and lending right and on certain rights related to copyright in the field of intellectual property [2006] OJ L 376/28 (Rental and Lending Right Directive); Council Directive 2009/24/EC of the European Parliament and of the Council of 23 April 2009 on the legal protection of computer programs [2009] OJ L 111/16 (Computer Programs Directive); Council Directive of the European Parliament and of the Council of 25 October 2012 on certain permitted uses of orphan works [2012] OJ L 299/5 (Orphan Works Directive); and Council Directive 2014/26/EU of the European Parliament and of the Council of 26 February 2014 on collective management of copyright and related rights and multi-territorial licensing of rights in musical works for online use in the internal market [2014] OJ L 84/72 (CRM Directive).

However, in patent law, the total number of implemented EU instruments is three – two regulations on supplementary protection certificates for medicinal and plant products and the Biotech Directive.[7] Some argue that the reason for the lack of EU involvement in patent law is due to the success of international initiatives,[8] such as the Paris Convention,[9] the Strasbourg Convention,[10] the European Patent Convention (EPC),[11] the Patent Cooperation Treaty (PCT),[12] and the Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPs).[13] Nevertheless, the supplementary protection certificate regulations and the Biotech Directive were implemented. The EU also attempted to introduce a patent law directive on the protection of computer-implemented inventions; however, this initiative failed.[14]

The result of the EU's involvement in patent law is a highly controversial topic. The implementation of substantive patent law at an EU level in such specific fields as biotechnology resulted in the harmonisation of these areas and reduced fragmentation therein. Considering that the main EU initiative in the patent field was a directive, it also had the inherent effect of increasing substantive fragmentation in the European patent system. Indeed, since directives are binding only as to their result, their basis is a model of harmonisation, rather than unification, with which comes a level of fragmentation. In addition to the national patent system and the European (EPC) patent system, there now exists an

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7 Council Regulation (EC) 469/2009 of the European Parliament and of the Council of 6 May 2009 concerning the supplementary protection certificate for medicinal products (codified version) [2009] OJ L 152/1; and Council Regulation (EC) 1610/96 of the European Parliament and of the Council of 23 July 1996 concerning the creation of a supplementary protection certificate for plant protection products [1996] OJ L 198/30.

8 Catherine Seville, *EU Intellectual Property Law and Policy* (Edward Elgar 2009) 70.

9 Convention for the Protection of Industrial Property 1883 (Paris Convention).

10 Convention on the Unification of Certain Points of Substantive Law on Patents for Invention 1963 (Strasbourg Patent Convention).

11 Convention on the Grant of European Patents of 5 October 1973 (European Patent Convention) (EPC).

12 Patent Cooperation Treaty 1970.

13 The Agreement on Trade Related Aspects of Intellectual Property Rights 1994 (TRIPs).

14 Proposal for a Directive of the European Parliament and of the Council on the patentability of computer-implemented inventions (COM (2002) 92 final) [2002] OJ C 151 E/129.

EU patent system for specific areas, wherein the CJEU, an additional institution, has jurisdiction to rule on issues of substantive patent law, such as biotechnological inventions.

Furthermore, as mentioned previously, criticisms exist that the CJEU is limited in its ability to interpret substantive patent law provisions because it is a generalist court.[15] By contrast, some commentators argue that a generalist perspective is necessary in order to take into account rights other that those relating to patent law, such as human dignity.[16] The aspect of this debate that is relevant here relates to the fact that patent institutions are almost entirely focussed on the granting of patents and substantive patent law, with little attention given to the place of patent law in the legal system overall. This specialist focus can result in a different kind of fragmentation – a substantive law fragmentation, or in other words, a split between patent law and other legal areas.[17] It can therefore be submitted that by having the oversight of a generalist court, the risks associated with this type of fragmentation can be reduced. This is possible because a generalist court ensures that patent law is interpreted having regard to other legal principles, be they principles of competition law, contract law, fundamental rights, or something else.

Furthermore, with the introduction of the CJEU into the field of patent law, for the first time, there now exists a formal dialogue between some patent law tribunals in Europe – national courts can now refer questions on substantive

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[15] See, for example: Darren Smyth, 'Patent law decisions from Supreme Courts: how can non-specialist judges decide this field of law?' (2014) 9(1) JIPLP 31. In general, these criticisms were one of the main reasons for the removal of original Articles 6-8 from the text of the unitary patent regulations, which contained most of the substantive patent law therein. This is discussed in detail above (Chapter Three).

[16] Jens Schovsbo, Thomas Riis and Clement Salung Petersen, 'The Unified Patent Court: pros and cons of specialization – is there a light at the end of the tunnel (vision)?' (2015) 46(3) IIC 271; and Justine Pila, 'An Historical Perspective I: The Unitary Patent Package' in Justine Pila and Christopher Wadlow (eds), *The Unitary EU Patent System* (Hart Publishing 2014).

[17] This has also been discussed in: Lionel Bently and Brad Sherman, 'The Ethics of Patenting: Towards a Transgenic Patent System' [1995] 3 Medical Law Review 275.

patent law to the CJEU.[18] Additionally, the European Patent Office (EPO) has implemented the provisions of the Biotech Directive into its Implementing Regulations and the Boards of Appeal of the EPO have been seen to take decisions of the CJEU into account and vice versa.

II. THE EU RESTRICTIONS

It can be argued that as a result of certain CJEU judgments, it has been ensured that fragmentation continues to exist in Europe. As seen in Chapter Two, one of the major downfalls of the European patent system is the lack of effective cross-border enforcement, which is said to have been partly due to two 'unfortunate' judgments by the CJEU.[19] The first was *GAT v LUK*,[20] wherein the appeal court of Düsseldorf referred a question regarding cross-border enforcement to the CJEU. The question referred, under what was then Article 16 Brussels Convention,[21] sought to ascertain the scope of the exclusive jurisdiction provided to national courts in relation to proceedings concerning the registration or validity of patents. The provision stated that:

> The following courts shall have exclusive jurisdiction, regardless of domicile:

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18 Article 267 Treaty on the Functioning of the European Union 2008 (TFEU).

19 Jan Brinkhof and Ansgar Ohly, 'Towards a Unified Patent Court in Europe' in Ansgar Ohly and Justine Pila (eds), *The Europeanization of Intellectual Property Law: Towards a European Legal Methodology* (OUP 2013) 208.

20 Case C-4/03 *Gesellschaft für Antriebstechnik mbH & Co. KG. v Lamellen und Kupplungsbau Beteiligungs KG* ECLI:EU:C:2006:457 (*GAT v LUK*).

21 Brussels Convention of 27 September 1968 on jurisdiction and the enforcement of judgments in civil and commercial matters [1972] OJ L 299 (consolidated version) (Brussels Convention) – now contained in Article 24(4) of Council Regulation (EU) 1215/2012 of the European Parliament and of the Council of 12 December 2012 on jurisdiction and the recognition and enforcement of judgments in civil and commercial matters (Recast) [2012] OJ L 351/1 (Brussels I Regulation (Recast)).

> (4) in proceedings concerned with the registration or validity of patents…the courts of the Contracting State in which the deposit or registration has been applied for, has taken place or is under the terms of an international convention deemed to have taken place;[22]

The question referred asked whether the rule contained herein should be interpreted as meaning that the exclusive jurisdiction conferred only applies if proceedings are brought to declare the patent invalid (by way of an action), or if it concerned all proceedings regarding the registration or validity of a patent, irrespective of whether the question was raised by way of an action or as a defence in an infringement action.[23] In its judgment, the CJEU extended the exclusive jurisdiction provided by Article 16(4) Brussels Convention to cover all cases wherein grounds of revocation are raised as an action and as a defence.[24] Essentially, the appeal court of Düsseldorf had asked whether a national court could decide on a validity objection concerning a patent from abroad. It was ultimately decided that while issues of validity could not be decided by 'foreign' courts, infringement could still be. Considering that validity is the most common form of defence in an infringement action, in practice, the fact that infringement can still be decided upon has little impact.[25] The effect of this ruling is that only national courts can rule on the validity of patents granted in that jurisdiction, for example, a French court cannot decide on the validity of a German patent.

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22 Article 16(4) Brussels Convention.
23 *GAT v LUK*, paras 12-13.
24 *GAT v LUK*, para 32. See also: Brinkhof and Ohly, 208.
25 Marketa Trimble, '*GAT*, *Solvay*, and the Centralization of Patent Litigation in Europe' [2012] 26 Emory International Law Review 515.

In the second 'unfortunate' judgment of *Roche v Primus*,[26] which was handed down on the same day, the Supreme Court of the Netherlands had referred a question to the CJEU relating to the possibility of consolidating proceedings under what was then Article 6(1) Brussels Convention.[27] This provision stated that a defendant domiciled in a Contracting State may also be sued where he is one of a number of defendants in the courts of the place where any one of them is domiciled.

Primus had sued Roche Netherlands, and eight other Roche companies from various Contracting States, who subsequently contested the Dutch jurisdiction. The question referred, as interpreted by the Court, asked 'whether Article 6(1) Brussels Convention must be interpreted as meaning that it is to apply to European patent infringement proceedings involving a number of companies established in various Contracting States in respect of acts committed in one or more of those States and, in particular, where those companies, which belong to the same group, have acted in an identical or similar manner in accordance with a common policy elaborated by one of them'.[28]

The CJEU decided that consolidation of proceedings against numerous infringers of the same European patent in different Member States was not possible, even if belonging to the same group and acting according to common policy.[29] The Court was of the opinion that in the case of numerous infringers, the same situation of fact could not be inferred and that infringement actions relating to a European patent had to be examined 'in the light of the relevant national law in force in each of the States for which it has been granted'.[30] The Court went on

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[26] Case C-539/03 *Roche Nederland BV v Frederick Primus* ECLI:EU:C:2006:458 (*Roche v Primus*).
[27] This provision is now contained in Article 8(1) Brussels I Regulation (Recast).
[28] *Roche v Primus*, para 18.
[29] *Roche v Primus*, para 41. See also: Brinkhof and Ohly, 208.
[30] *Roche v Primus*, para 27 and 30.

to conclude that if the same legal situation were to occur, divergence would not occur, and therefore the decisions could not be considered to be contradictory.[31] Therefore, the effect of the judgment is that infringement actions must be brought in each Member State where the infringement occurs. Essentially, this judgment ensures the possibility of numerous proceedings on the same patent and/or issue in various Member States, with the risk of divergent outcomes.

The context of these cases must also be taken into account in assessing them. Undesirable patent litigation practices, including 'strategic forum shopping' and the practice of 'filing declaratory judgment suits in slower jurisdictions in an attempt to inhibit parallel infringement suits in more expeditious jurisdictions' (also known as 'torpedoes') had been spreading across Europe.[32] Once a case comes before a court, the rule of *lis pendens* states that if a case concerning the same cause of action, between the same parties, comes before the court of another Member State, the court second-seized must stay proceedings until the first establishes whether it has jurisdiction.[33] If the first court seized takes a long time to establish whether it has jurisdiction, the case before the second court will be delayed significantly. The CJEU was attempting to reduce the possibility of these practices. Although seen as a good attempt, the decisions were criticised for 'failing to eliminate the possibility of [these] undesirable litigation practices', with some commentators promoting a competitive model of convergence.[34]

The overall result of both cases is that although the CJEU could have allowed more flexibility in cross-border enforcement, both validity and

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31 *Roche v Primus*, para 31 and 32.

32 Trimble, 519.

33 Article 29 of Council Regulation (EU) 1215/2012 of the European Parliament and of the Council of 12 December 2012 on jurisdiction and the recognition and enforcement of judgments in civil and commercial matters (Recast) [2012] OJ L 351/1.

34 Trimble, 520; and, on the promotion of a competitive model of convergence, see: Jan Smits and William Bull, 'The Europeanization of Patent Law: Towards a Competitive Model' in Ansgar Ohly and Justine Pila (eds), *The Europeanization of Intellectual Property Law: Towards a European Legal Methodology* (OUP 2013) 48.

infringement cases must be initiated in each country concerned. This ensures that the risks of fragmentation, specifically the possibility of inconsistent decisions, will remain in the European patent system unless and until a centralised European patent court is established.

III. THE DISSUASION OF DIVERGENCE

When considering the EU's involvement in the patent field, the starting point must be the nature and scope of its competence with respect to patent law. In general, the EU shares competence with Member States in relation to the internal market.[35] Furthermore, intellectual property is not included in the exclusive competences of the EU.[36] It must also be noted, that because competence is shared in this regard, the principles of proportionality and subsidiarity must be taken into account.[37] When implementing EU legislation in the field of intellectual property law, the legal basis relied on, found in the Treaty on the Functioning of the European Union (TFEU), is either Article 114 TFEU (in the case of harmonising directives) or Article 118 TFEU (in the case of regulations establishing unitary intellectual property rights).[38] Either way, the overarching reason behind the introduction of EU legislation in patent law is to promote the functioning of the internal market, to reduce barriers to trade, and to reduce fragmentation.

The EU first became involved in substantive patent law legislation through the implementation of two regulations concerning supplementary protection

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35 Article 4(2) TFEU.
36 Article 3 TFEU.
37 Article 5 TEU and Protocol (No. 2) on the Application of the Principles of Subsidiarity and Proportionality [2008] OJ C 115/1, annexed to the TEU and TFEU by the Treaty of Lisbon 2007.
38 Article 118 TFEU.

certificates for medicinal and plant protection products.[39] A supplementary protection certificate is distinct from a patent; however, it is a *sui generis* right that extends the protection afforded to a patented product, in certain circumstances, for a limited period of time.[40] It was deemed necessary by the EU to implement a uniform solution at Community level to provide for situations where 'the period that elapses between the filing of an application for a patent for a new medicinal or plant product and the authorisation to place that product on the market, makes the period of effective protection under the patent insufficient to cover the investment put into research'.[41] A uniform solution, in the form of a supplementary protection certificate was implemented with the aim of 'preventing the heterogeneous development of national laws leading to further disparities which would be likely to create obstacles to the free movement of medicinal and plant products within the Community and thus directly effect the functioning of the internal market'.[42]

The supplementary protection certificate Regulations were introduced with the aim of harmonisation and promoting the functioning of the internal market in order to remove the risk of discrepancies arising that would incite the relocation of research to countries offering greater protection.[43] However, the interpretation of the regulations by the CJEU, especially with regard to medicinal products, has been the subject of considerable controversy. The reason has been the Court's failure to clearly answer the questions referred to it by domestic courts for

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[39] Council Regulation (EC) 469/2009 of the European Parliament and of the Council of 6 May 2009 concerning the supplementary protection certificate for medicinal products (codified version) [2009] OJ L 152/1 and Council Regulation (EC) 1610/96 of the European Parliament and of the Council of 23 July 1996 concerning the creation of a supplementary protection certificate for plant protection products [1996] OJ L 198/30 (SPC Regulations).

[40] Article 13 Regulation 469/2009.

[41] Recital 4 Regulation 469/2009.

[42] Recital 7 Regulation 469/2009.

[43] Annette Kur and Thomas Dreier, *European Intellectual Property Law: Text, Cases & Materials* (Edward Elgar 2013) 145.

preliminary determination.[44] Owing to the time, effort and cost of referring a question to the CJEU, coupled with unsatisfactory answers, it has been proposed that national courts should stop referring these questions to the CJEU and to decide on them in a manner that is as consistent as possible.[45] However, in general, national courts are very willing to refer questions to the CJEU, even when it is not necessary and when it takes a long time to get an answer.

As mentioned above, the EU also made an attempt to enter the patent field in the area of computer-implemented inventions. In fact, there was a proposed directive on the patentability of computer-implemented inventions; however, after much debate as well as fierce criticism from anti-patent software groups,[46] the proposal failed.[47] The objective of the proposed Computer-Implemented Inventions Directive was to clarify the existing law and to resolve some inconsistencies in the approach of national laws.[48] The proposal was rejected by the Council of Ministers and returned to the European Parliament, but rather than attempt to amend the proposal further, it was rejected. In this case, the compromise that could have been reached on certain issues would have resulted in the implementation of provisions that were so broad that in reality, they would change nothing.

The most significant example of the involvement of the EU in the European patent system is the implementation of the Biotech Directive in 1998.

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44 Darren Smyth, 'Two gaps instead of one: the CJEU's effect on Supplementary Protection Certificate jurisprudence' (2014) 9(6) JIPLP 445.

45 Smyth, Two gaps instead of one, 445.

46 See, for example: the Electronic Frontier Foundation <https://www.eff.org/deeplinks/2005/07/eu-parliament-votes-down-software-patents-648-14> accessed 30 September 2016.

47 Commission Proposal for a Directive of the European Parliament and of the Council on the patentability of computer-implemented inventions (COM (2002) 92 final) [2002] OJ C 151 E/129 (proposed Computer-Implemented Inventions Directive).

48 European Commission, 'Proposal for a Directive on the patentability of computer-implemented inventions – frequently asked questions' [2002] MEMO/02/32 <http://europa.eu/rapid/press-release_MEMO-02-32_en.htm?locale=en> accessed 30 September 2016.

However, the finalisation and implementation of the Directive was far from straightforward. The original proposal to harmonise the patentability of biotechnological inventions was made in 1985. Difficulties arose due to the controversy surrounding the ethical and social concerns over biotechnology, specifically the appropriateness and safety of genetically engineered products as well as concerns over animal suffering and patenting life.[49] In 1995, following the rejection of the first directive on the topic, which was initially drafted in 1988, the Commission, the Council and the Parliament moved with great speed that resulted in the development and enactment of the current directive.[50]

The issues to do with the implementation of the Biotech Directive did not end once it was enacted. Shortly thereafter, an action for annulment was brought by the Netherlands to the CJEU.[51] The arguments put forward were based on a number of grounds including: the legal basis of the Directive; issues of subsidiarity and legal certainty; and the consistency of the Directive with international law and fundamental rights.[52] However, the action failed on all grounds.[53] The CJEU found that the harmonisation provided by the Biotech Directive was justified and could only be achieved through Community action and not by Member States alone, thereby rejecting the subsidiarity argument.[54] Further, whilst the wording of the Directive provided scope for manoeuvre, it did

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[49] E. Richard Gold and Alain Gallochat, 'The European Biotech Directive: Past as Prologue' (2001) 7(3) European Law Journal 331, 337.

[50] Robin Nott, '"You did it!": the European Biotechnology Directive at last' (1998) 20(9) EIPR 347, 347.

[51] Case C-377/98 *Netherlands v European Parliament and Council of the European Union* ECLI:EU:C:2001:523.

[52] Case C-377/98 *Netherlands v European Parliament and Council of the European Union* ECLI:EU:C:2001:523.

[53] For more detail on the arguments raised by the Netherlands, see, for example: Andrew Scott, 'The Dutch challenge to the Bio-Patenting Directive' (1999) 21(4) EIPR 212; and Sebastian Moore, 'Challenge to the Biotechnology Directive' (2002) 24(3) EIPR 149.

[54] Case C-377/98 *Netherlands v European Parliament and Council of the European Union* ECLI:EU:C:2001:523, para 32.

not lack legal certainty.[55] It was also found to safeguard human dignity and integrity, and to be consistent with international law.[56]

Prior to the implementation of the Biotech Directive, there were numerous diverging national laws relating to the patentability of biotechnological inventions, for example, the Netherlands refused to protect these inventions at all.[57] Therefore, the aim of the Directive was and is to encourage a strong biotechnology industry in Europe by introducing effective and harmonised protection throughout the Member States.[58] This was seen as essential in order to maintain investment in the field.[59] However, the Directive was also introduced in order to protect fundamental rights, such as human dignity. The Directive seeks to achieve these aims by setting out the conditions for patentability of biotechnological inventions and the subject matter that is excluded from patentability. In doing so, it restates the core provisions of the EPC and explains how they relate to biotechnological inventions.

Member States are obliged to transpose the provisions of the Biotech Directive into national law; however, it is not required that the provisions be implemented directly, word for word.[60] The national measure must only achieve the objectives set by a directive, which allows Member States to take into account specific national characteristics. Subsequently, fragmentation is an inherent aspect of law making via directives.

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55 Case C-377/98 *Netherlands v European Parliament and Council of the European Union* ECLI:EU:C:2001:523, para 39.

56 Case C-377/98 *Netherlands v European Parliament and Council of the European Union* ECLI:EU:C:2001:523, para 71, 79, and 20.

57 Graeme Laurie, 'Intellectual property protection of biotechnological inventions and related materials' [2003] 4 Innogen Working Paper 10 <http://www.innogen.ac.uk/working-papers/550> accessed 30 September 2016.

58 Recital 3, Biotech Directive.

59 Recital 3, Biotech Directive.

60 Article 288 TFEU: A directive shall be binding, as to the result to be achieved, upon each Member State to which it is addressed, but shall leave to national authorities the choice of form and methods.

As a result, some Member States have introduced the substantive patent law of the Biotech Directive into their own national legislation in different terms,[61] and these terms can be interpreted in various manners. As stated by Jan Krauss and Toshiko Takenaka, in relation to the isolation of DNA sequences:

> The texts of the Biotech Directive represent compromises and thus include a lot of ambiguity in key terms defining the scope of protection. This led to different interpretations adopted by national courts in EU member states.[62]

Not only has the Biotech Directive introduced another layer of substantive patent law into Europe for EU Member States to implement, it has also increased significantly the jurisdiction of the CJEU in the patent field. Prior to the introduction of the Directive, the CJEU only had limited jurisdiction with regard to substantive patent law, discussed above. Once the Biotech Directive was introduced, however, national courts of EU Member States were required to refer questions on the interpretation of its provisions to the CJEU. On the one hand, this increased the number of European institutions that have jurisdiction in European patent law cases and thus increased the fragmentation of the European patent system. However, on the other hand, it has also introduced, for the first time in patent law, a formal dialogue mechanism between some of the institutions involved. Under Article 267 TFEU:

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[61] For a detailed discussion on the introduction of Article 6(2)(c) Biotech Directive in national law, see: Åsa Hellstadius, 'A comparative analysis of the national implementation of the Directive's morality clause' in Aurora Plomer and Paul Torremans (eds) *Embryonic Stem Cell Patents: European Law and Ethics* (OUP 2009). For the differences between the Biotech Directive and the UK implementation, see: Laurie, IP protection of Biotech inventions, 12.

[62] Jan Krauss and Toshiko Takenaka, 'Construction of an efficient and balanced patent system: patentability and patent scope of isolated DNA sequences under US Patent Act and EU Biotech Directive' in Christophe Geiger (ed), *Constructing European Intellectual Property: Achievements and New Perspectives* (Edward Elgar 2013) 256.

> The Court of Justice of the European Union shall have jurisdiction to give preliminary rulings concerning:
>
> (a) the interpretation of the Treaties;
>
> (b) the validity and interpretation of the acts of the institutions, bodies, offices or agencies of the Union

Accordingly, the CJEU has jurisdiction to give preliminary rulings on the interpretation of substantive patent law, rulings which must then be incorporated by the national court in its ultimate decision and must also be taken into account by all EU Member States.

The initiation of a formal dialogue mechanism in the European patent system is clearly a positive step for harmonisation in theory; however, in practice, the decisions of the CJEU in intellectual property law matters, and specifically patent law matters have been criticised extensively.[63] For example, as seen above regarding the supplementary protection certificate Regulations, the CJEU has been criticised for returning unclear answers to the questions referred to it, for taking too long to return those answers, and also for making legal and scientific errors in the answers it returns.[64] This will be discussed in more detail below.

The implementation of the Biotech Directive also had a significant effect on the European (EPC) patent system. Rather than directly compete with the EU Biotech Directive, the EPO considered that the area of biotechnology was so important to industry that a coordinated approach was necessary. In 1999, only

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[63] See for example: Robin Jacob, 'The Relationship between European and National Courts in Intellectual Property Law' in Ansgar Ohly and Justine Pila (eds), *The Europeanization of Intellectual Property Law: Towards a European Legal Methodology* (OUP 2013) 198.

[64] Darren Smyth, 'Two gaps instead of one: the CJEU's effect on Supplementary Protection Certificate jurisprudence' (2014) 9(6) JIPLP 445.

one year after its introduction, the Directive was incorporated into the Implementing Regulations to the EPC, which state in Chapter V:

> For European patent applications and patents concerning biotechnological inventions, the relevant provisions of the Convention shall be applied and interpreted in accordance with the provision of this Chapter. Directive 98/44/EC of 6 July 1998 on the legal protection of biotechnological inventions shall be used as a supplementary means of interpretation.[65]

The aim was to ensure that EU Member States complied with their duty to bring their national laws in line with the Directive. Additionally, from a political perspective the EPC had little choice in the matter, since a majority of its Contracting States were also EU Member States. This had the effect of strengthening the biotechnology industry in Europe, but also put a greater focus on ethical considerations at the EPO, as well as at EU level. The legislation regarding biotechnological inventions was therefore harmonised across Europe, not only the EU. However, the caveat remains that interpretations can still vary depending on the tribunal in question and neither the EPO nor the CJEU is obliged to follow the other.

The impact of the Biotech Directive has been profound. On the one hand it has harmonised the patentability and exclusion of certain biotechnological subject matter and thus fulfilled its aim of harmonisation. However, on the other hand, more generally, it has increased fragmentation in the European patent system by introducing further aspects of substantive patent law for all tribunals concerned to

[65] Chapter V, Rule 26(1) Implementing Regulations to the EPC 2000.

interpret, as well as conferring jurisdiction concerning substantive patent law to another court. This leads to practical implications for the patent owner – rather than having more certainty regarding his biotechnological invention, the possibility exists that the patent could be opposed at the EPO, and/or brought before numerous national courts, and furthermore, one of those national courts could refer a question on the matter to the CJEU. The length of time this could take would likely have a significant impact on the commercialisation of the invention, which would be to the detriment of the patentee and potentially also the public, especially if that patentee is a small or medium-sized enterprise.

IV. Case Study in Cooperation

As the main feature of the European (EU) patent system, it is pertinent to investigate the impact of the Biotech Directive on the European patent system in more detail. Having introduced further substantive patent law into the area, it is the only piece of legislation whose provisions have been incorporated into the law of all players in the European patent system. One of the most relevant aspects of the Biotech Directive has been the interpretation of Article 6, which excludes certain subject matter from patentability. It states:

> (1) Inventions shall be considered unpatentable where their commercial exploitation would be contrary to *ordre public* or morality; however, exploitation shall not be deemed to be so contrary merely because it is prohibited by law or regulation.

(2) On the basis of paragraph 1, the following, in particular, shall be considered unpatentable:

(a) processes for cloning human beings;

(b) processes for modifying the germ line genetic identity of human beings;

(c) uses of human embryos for industrial or commercial purposes;

(d) processes for modifying the genetic identity of animals which are likely to cause them suffering without any substantial benefit to man or animal, and also animals resulting from such processes.

In terms of the questions posed by this thesis, Article 6(2)(c) has been the most relevant and so the rest of this chapter will focus on how the various tribunals in the European patent system have interpreted this provision. It is considered to be the most relevant for this purpose because it was introduced to ensure that patent law takes sufficient account of fundamental rights, and that it has been interpreted not only by national courts, the Boards of Appeal and the Enlarged Board of Appeal of the EPO, but also twice by the CJEU. An analysis of this case law shows that the various tribunals of the European patent system are taking each other's judgments into account, as was also seen in the previous chapter. However, it also shows that where unification of substantive patent law does occur, reducing fragmentation, the result is not necessarily beneficial.

Article 6(2)(c) prohibits the patenting of inventions that involve the use of human embryos for industrial or commercial purposes and has been controversial ever since it was adopted.[66] It has been incorporated into the Implementing Regulations to the EPC in Rule 28 in almost identical terms. Rule 28 states that:

[66] Aurora Plomer, 'After *Brüstle*: EU accession to the ECHR and the future of European patent law' (2012) 2(2) Queen Mary Journal of Intellectual Property 110. For an analysis of the

> Under Article 53(a), European patents shall not be granted in respect of biotechnological inventions, which, in particular, concern the following:
>
> (c) uses of human embryos for industrial or commercial purposes.[67]

The first major case relating to the interpretation of Rule 28(c) came before the Enlarged Board of Appeal of the EPO in G 2/06,[68] also known as the *WARF* decision.[69] The question referred to the Enlarged Board was whether Rule 28(c) forbids the patenting of an invention that concerns, *inter alia*, human embryonic stem cell cultures, which 'at the filing date could be prepared exclusively by a method which necessarily involved the destruction of the human embryos from which they were derived'.[70] In its interpretation, the Enlarged Board of Appeal considered Article 6(2)(c) of the Biotech Directive and observed that neither the EU nor the EPC legislator, unlike their German and UK counterparts, had chosen to define the term 'embryo', assuming that they had been aware of the varying definitions in national laws and deliberately refrained from defining the term.[71] It was decided that since the aim of preventing the commercialisation of embryos was to protect the fundamental right of human dignity, the Enlarged Board

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patenting of human stem cells prior to the case law that will be subsequently discussed, see: Graeme Laurie, 'Patenting stem cells of human origin' (2004) 26(2) EIPR 59.

67 Chapter V, Rule 28(c) Implementing Regulations to the EPC 2000.

68 G 2/06 *Use of embryos/WARF* of 25.11.2008. For a detailed analysis of the proceedings before the Enlarged Board of Appeal in this case, see: Sigrid Sterckx, 'The WARF/Stem cells case before the EPO Enlarged Board of Appeal' (2008) 30(12) EIPR 535; and Sigrid Sterckx, 'The European Patent Convention and the (non-) patentability of human embryonic stem cells – the WARF case' [2008] 4 IPQ 478.

69 The scope of application of the exclusion's reference to 'industrial or commercial use' was first addressed by the Opposition Division of the EPO in relation to EP0695351, also known as the Edinburgh case. The decision of the Opposition Division can be found on the European Patent Register, Grounds for the decision (Annex), dated 21.07.2003. See: Malene Rowlandson, 'WARF/Stem cells (G2/06): the ordre public and morality exception and its impact on the patentability of human embryonic stem cells' (2010) 32(2) EIPR 67.

70 *WARF*, Question 2.

71 *WARF*, Reasons, Point 20 and European Patent Office, *Case Law of the Boards of Appeal of the European Patent Office* (8th edition, Druckerei CH Beck 2016) B, 2.1.

presumed that neither the exclusion nor the term 'embryo' ought to be construed restrictively.[72] Proceeding from this basis, it was decided that Rule 28(c) prohibits the patenting of products that at the time of filing can only be prepared by methods involving the destruction of human embryos.[73] Rather than attempt to define the tem 'embryo', the Enlarged Board stated that 'what is an embryo is a question of fact in the context of any particular patent application'.[74] Considering that the definition of human embryo differs depending on the country in question, and due to the importance of the concept of a human embryo for certain areas of law and society, it is submitted that it was wise for the Enlarged Board to do so.[75]

Another relevant point arose in the *WARF* decision relating to the interaction of the various tribunals in the European patent system. The appellant asked the Enlarged Board to refer a number of questions to the CJEU because Rule 28(c) repeats the wording of Article 6(2)(c) of the Biotech Directive. The Enlarged Board decided that 'neither the EPC nor the Implementing Regulations make any provision for a referral' to the CJEU and that 'their powers were limited to those given in the EPC'.[76] The Enlarged Board also went on to say that the mere identity of the wording of both provisions could not lead to the conclusion that the CJEU has jurisdiction to decide matters for the EPO under the EPC and further, whether the CJEU would entertain such a request was questionable.[77] This

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72 *WARF*, Reasons, Point 20.
73 *WARF*, Order, Point 2.
74 *WARF*, Reasons, Point 20. For a discussion on the legal nature of the interpretation of the Biotech Directive provisions by the Boards of appeal of the EPO after Opinion 1/09, see: Rob Aerts, 'The patenting of biotechnological inventions in the EU, the judicial bodies involved, and the objectives of the EU legislator' (2014) 36(2) EIPR 88.
75 The decision in *WARF* has been subsequently followed by the Boards of Appeal of the EPO in cases such as T 522/04 *Stem Cells/CALIFORNIA* of 28.05.2009 and T 2221/10 *Culturing stem cells/TECHNION* of 4.02.2014.
76 *WARF*, Reasons, Point 3.
77 *WARF*, Reasons, Point 8.

brings to mind the attempt of a national court to refer a question to the Enlarged Board of Appeal that was considered in the previous chapter.[78]

The next institution to make a decision on the interpretation of Article 6(2)(c) was the CJEU. In Case C-34/10, also known as the *Brüstle* decision, a reference for a preliminary ruling was requested by the German Supreme Court[79] under Article 267 TFEU.[80] The case concerned a patent relating to neural precursor cells and the processes for their production from embryonic stem cells, as well as their use for therapeutic purposes. The German court, amongst other questions, asked the CJEU what was meant by the term 'human embryo' in Article 6(2)(c) of the Biotech Directive.[81] Instead of taking an example from the Enlarged Board in *WARF*, the CJEU was of the opinion that the term must be regarded 'as designating an autonomous concept of EU law' for the purposes of the application of the Directive, which must be 'interpreted in a uniform manner throughout the territory of the Union'.[82] It went on to define 'human embryo' – having regard to the fundamental rights underpinnings of the patentability exclusion in which the term appeared – as:

> [A]ny human ovum after fertilisation, any non-fertilised human ovum into which the cell nucleus from a mature human cell has been transplanted and any non-fertilised human ovum whose division and further development have been stimulated by parthenogenesis.[83]

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78 *Aerotel Ltd. V Telco Holdings Ltd & Ors Rev 1* [2006] EWCA Civ 1371.

79 Decision of the Bundesgerichtshof, 17 December 2009 (Xa ZR 58/07) – 'Neurale Vorläuferzellen (*Neural precursor cells*).'

80 Case C-34/10 *Oliver Brüstle v Greenpeace eV*. ECLI:EU:C:2011:669.

81 For more detailed commentary on the CJEU ruling in this case, see, for example: Martine Ines Schuster, 'The Court of Justice of the European Union's ruling on the patentability of human embryonic stem-cell-related inventions (case C-34/10)' (2012) 43(6) IIC 626.

82 *Brüstle*, para 26.

83 *Brüstle*, para 38.

In doing so, the CJEU ensured that the term 'human embryo' was given a significantly broad definition, which had the effect of restricting the commercialisation of innovation in this area, thereby, closely harmonising this area of patent law.

Brüstle may have closely harmonised the area, however, it has been questioned by commentators whether this was appropriate or progressive.[84] The *Brüstle* decision could indeed be an example of attempts to harmonise the European patent system going too far. Although the CJEU has taken into account the intention of the legislator to protect fundamental rights and human dignity, the decision has been widely criticised[85] as one that has gone too far by overly simplifying and giving an 'incomplete analysis of the human rights situation'.[86] By defining 'human embryo' expansively and as an autonomous concept of EU law, the CJEU has ignored the fact that various definitions existed in many Member States and in doing so, has ignored considerations of value pluralism.[87]

This first raises a question as to whether the identification of terms as autonomous concepts of EU law is an appropriate action for the CJEU to take in circumstances involving patents and morality. It could be argued that in doing so, the CJEU is moving from the realm of judicial interpretation into that of judicial

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[84] Shane Burke, 'Interpretative clarification of the concept of "human embryo" in the context of the Biotechnology Directive and the implications for patentability: Brüstle v Greenpeace eV (C-34/10)' (2012) 34(5) EIPR 346, 349.

[85] For a brief outline of the criticisms of Brüstle, see: Scott Parker and Paul England, 'Where now for stem cell patents?' (2012) 7(10) EIPR 738, 743.

[86] Ansgar Ohly, 'European Fundamental Rights and Intellectual Property' in Ansgar Ohly and Justine Pila (eds), *The Europeanization of Intellectual Property Law: Towards a European Legal Methodology* (OUP 2013) 159.

[87] As mentioned in: Justine Pila, 'A Constitutionalized Doctrine of Precedent and the *Marleasing* Principle as a Bases for a European Legal Methodology' in Ansgar Ohly and Justine Pila (eds), *The Europeanization of Intellectual Property Law: Towards a European Legal Methodology* (OUP 2013) 236. This was also one of the reasons of the European Court of Human Rights when it decided not to define when the right to life begins. It was stated that the issue of when the right to life begins comes within the margin of appreciation which the Court generally considered that States should enjoy themselves: *Vo v France* App no 53924/00 (ECtHR 8 July 2004), para 82; *Evans v UK* App no 6339/05 (ECtHR, 7 March 2006), para 46.

activism.[88] When promoting a system of judicial cooperation, the risk of judicial activism must always be taken into consideration. The *Brüstle* case is an example of where this risk could have been foreseen and avoided.

Second, it has been argued that by imposing uniform exclusions based on human dignity where reality points to diversity threatens not only the autonomy of Member States but also the integrity of the EU.[89] Previously, in the *Omega* case, the CJEU had emphasised the need to ensure a margin of appreciation to EU Member States regarding the meaning and requirements of human dignity.[90] Furthermore, the CJEU had previously held in the *Netherlands* case that provisions of the Biotech Directive should allow Member States a wide scope of manoeuvre and discretion in their application.[91] If the CJEU had followed its own case law and shown some restraint in *Brüstle*, it could have left some room to manoeuvre for national courts. Requiring Member States to by-pass the legislature by adopting a definition of 'human embryo' that is different from the definitions supported by the majority of EU Member States, has important implications for other areas of law and social policy.[92] Fragmentation, rather than unification, in these kinds of areas is necessary. It is necessary to allow for diversity and value pluralism, but also to allow progression towards harmonisation. As stated by Jens Schovsbo:

> The challenge is to create a system which not only benefits innovation but can also deal with the sensitive issues involving morality and does

[88] Andrea Faeh, 'Judicial activism, the Biotech Directive and its institutional implications: is the court acting as a legislator or a court when defining the "human embryo"?' (2015) 40(4) EL Rev 613.

[89] Plomer, After Brüstle, 125.

[90] Case C-36/02 *Omega Spielhallen- und Automatenaufstellungs-GmbH v Oberbürgermeisterin der Bundesstadt Bonn* ECLI:EU:C:2004:614 (*Omega*).

[91] This point seemed to have been forgotten in *Brüstle*, as noted in the following article: Shawn HE Harmon, Graeme Laurie and Aidan Courtney, 'Dignity, plurality and patentability: the unfinished story of Brustle v Greenpeace' (2013) 38(1) EL Rev 92.

[92] Justine Pila and Paul Torremans, *European Intellectual Property Law* (OUP 2016) 107.

> so in a way which is at the same time effective and centralized and respects the cultural and legal diversities of the EU-countries.[93]

In conclusion, the CJEU's decision in the *Brüstle* case raises important questions regarding the role of the CJEU in the areas of both patent law and fundamental rights.

This decision is also relevant because the CJEU relied on the *WARF* decision in *Brüstle* when answering the second question in the referral. This question referred to whether the concept 'uses…for industrial or commercial purposes' also covers the use of human embryos for the purpose of scientific research.[94] It was held, in an apparently identical manner to that of the Enlarged Board, that 'although the aim of scientific research must be distinguished from industrial or commercial purposes, the use of human embryos for the purposes of research, which constitutes the subject matter of a patent application, cannot be separated from the patent itself and the rights attaching to it'.[95]

Furthermore, in T 2221/10, also known as *Technion,* the Technical Board of Appeal of the EPO followed the *WARF* decision and further aligned the EPO with the reasoning of *Brüstle* relating to the non-patentability of inventions obtained either by the destruction of human embryos or from publically available human embryonic stem cell lines derived by a process destroying the human embryo.[96] This is all further evidence of the fact that judicial cooperation exists and that the institutions of the European patent system are willing to take account of one another's judgments, even when they are not required to.

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[93] Jens Schovsbo, 'Constructing an efficient and balanced European patent system: "muddling through"' in Christophe Geiger (ed), *Constructing European Intellectual Property: Achievements and New Perspectives* (Edward Elgar 2013) 230.

[94] *Brüstle*, para 39.

[95] *Brüstle*, para 45.

[96] T 2221/10 *Culturing stem cells/TECHNION* of 4.02.2014. For more on this issue, see: Aurelie Mahalatchimy et al, 'Exclusion of patentability of embryonic stem cells in Europe: another restriction by the European Patent Office' (2015) 37(1) EIPR 25.

The debate following the *Brüstle* judgment was extensive. A central theme was that as a generalist court, the CJEU did not have the expertise necessary to make decisions on cases concerning patent law.[97] The main argument in this regard was that in an area as specialised as patent law, a generalist court lacks the technical understanding that is necessary to interpret provisions of patent law and the subject matter that is at issue in particular cases. However, others have argued that this is exactly what patent law needs – the overview of a generalist court in order to take into account fundamental rights such as human dignity and to avoid the development of a tunnel vision in specialist courts that are predominantly interested in the grant of patents.[98] This argument is validated when taking a closer look at certain aspects of the patent system that have developed from the practices of specialised patent institutions.

For example, the Swiss Patent Office introduced the notion of second medical use patents or 'Swiss-form claims', a practice that has allowed for the granting of patents for new uses of known products. The granting of this kind of patent has now been allowed by most national institutions and by the EPO (although the form of such claims has been amended in the EPC 2000).[99] However, the granting of second medical use patents can have a negative impact on society when one considers the possibility of doctors or medical institutions being sued for prescribing a drug, which could then be taken for the new use that

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97 See, in general: Smyth, Patent law decisions from Supreme Courts. For an opinion on ill-founded human rights rhetoric see: Jonathan Griffiths and Luke McDonagh, 'Fundamental rights and European IP law: the case of Art 17(2) of the EU Charter' in Christophe Geiger (ed), *Constructing European Intellectual Property: Achievements and New Perspectives* (Edward Elgar 2013).

98 Jens Schovsbo, Thomas Riis and Clement Salung Petersen, 'The Unified Patent Court: pros and cons of specialization – is there a light at the end of the tunnel (vision)?' (2015) 46(3) IIC 271; and Ansgar Ohly, 'Concluding Remarks: Postmodernism and Beyond' in Ansgar Ohly and Justine Pila (eds), *The Europeanization of Intellectual Property Law: Towards a European Legal Methodology* (OUP 2013) 264.

99 Article 54(5) EPC.

has subsequently been patented.[100] This could be considered as a direct or indirect infringement of the second medical use patent.[101]

A second example can be seen in the area of essentially biological processes. These processes are excluded from patentability;[102] however, the Enlarged Board of Appeal of the EPO has recently allowed patent claims for the products resulting from essentially biological processes.[103] The implications of this decision are not yet known; however, the general outcome is that more and more types of patents are becoming available, often without regard for the practical implications that they might have.

This specialist focus, which is anchored in the practice-focus of granting patents, could be described as another kind of fragmentation – a fragmentation of substantive laws, or, in other words, a split between patent law and law in general. In order to allow for the granting of new kinds of patents, which arguably allows for more innovation, institutions must also be aware of the general concepts of law. It is for this reason that a generalist court perspective is necessary in the field of patent law – a generalist court would have the oversight to see patent law in the context of the law in general, and would reduce the risks associated with this kind of fragmentation and that of tunnel vision.

The general consensus was that the CJEU went too far in *Brüstle*; however, even though the decision of the case is controversial, the interaction and the relationship between the various patent law tribunals can still be seen.[104] The

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[100] For more, see for example: Kai Rüting, 'A New Scenario for Infringement of Second Medical Use Patents: Are Generics Liable when They Participate in Discount Contract Tenders?' [2016] 1 epi Information 25.

[101] This will depend on the law of the Member State in question. For a comparison of these laws, see: Paul England, 'Infringement of second medical use patents in Europe and the UPC' [2016] 7 GRUR Int 714.

[102] Article 53(b) EPC.

[103] G 2/13 *Broccoli II* and G 2/12 *Tomatoes II* of 25.03.15.

[104] For more on the institutional and jurisdictional aspects of stem cell patenting, see, for example: Antonia Bakardjieva Engelbrekt, 'Institutional and Jurisdictional Aspects of Stem Cell

practice of taking into consideration the opinions of the CJEU, as well as those of national courts, was encouraged even more so by the Boards of Appeal of the EPO in another case relating to embryonic stem cells. In T 1441/13 *Embryonic stem cells, disclaimer/ASTERIAS*, the board stated that:

> Although the Boards of Appeal are only bound by the European Patent Convention and the Implementing Regulations as part of the Convention according to Article 23(3) EPC, the decisions taken by the CJEU and the Supreme Courts of EPC Contracting States on the interpretation of shared or common legislative terms and concepts are certainly of relevance for, and may be considered by, the Boards of Appeal to arrive at their decisions.[105]

As seen in the previous chapter, this further reinforces the fact that the various tribunals are taking into account the decisions of others in order to promote judicial dialogue and cooperation in the European patent system.

However, *Brüstle* was not the last instalment in the human embryo narrative of the European courts. A question on the interpretation of Article 6(2)(c) of the Biotech Directive, specifically regarding the previous interpretation of the term 'human embryo', was referred to the CJEU by the UK.[106] In Case C-364/13 *International Stem Cell Corporation (ISCC)*,[107] the referring court asked:

Patenting in Europe (EC and EPO): Tensions and Prospects' in Aurora Plomer and Paul Torremans (eds), *Embryonic Stem Cell Patents: European Law and Ethics* (OUP 2009).

[105] T 1441/13 *Embryonic stem cells, disclaimer/ASTERIAS* of 9.09.2014.

[106] *International Stem Cell Corporation v Comptroller General of Patents* [2013] EWHC 807 (Ch).

[107] Case C-364/13 *International Stem Cell Corporation v Comptroller General of Patents, Designs and Trade Marks* (*ISCC*) ECLI:EU:C:2014:2451.

> Are unfertilised human ova whose division and further development have been stimulated by parthenogenesis, and which, in contrast to fertilised ova, contain only pluripotent cells and are incapable of developing into human being, included in the term 'human embryos' in Article 6(2)(c) of Directive 98/44/EC on the legal protection of biotechnological inventions?

The CJEU clarified its earlier decision in *Brüstle* and decided that an unfertilised human ovum whose division and further development have been stimulated by parthenogenesis does not constitute a 'human embryo' if it does not, in itself, 'have the inherent capacity of developing into a human being'.[108] Therefore, the effect of the decision is that rather than the definition of 'human embryo' concerning the capability of the ovum to *commence* the development into a human being, it must have the inherent capacity of *developing into* a human being.

The reason behind this clarification was because the CJEU in the *Brüstle* case based its findings on observations, which considered that the ovum in question would be capable of full development.[109] This misunderstanding of the technical background of human embryos could assist the argument that specialist courts are necessary in this field; however, the importance of a broader perspective cannot be underestimated.

Overall, the decision has been welcomed and has somewhat reopened the doors of commercialising research in this area.[110] Some commentators are of the

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[108] *ISCC*, para 28.
[109] *ISCC*, para 31 and 32.
[110] See for example: Sebastian Moore and Andrew Wells, 'Clarification of European law relating to stem cell patents' (2015) 37(4) EIPR 258; and Ella O'Sullivan, 'International Stem Cell Corp v Comptroller General of Patents: the debate regarding the definition of the human embryo continues' (2014) 36(3) EIPR 155. O'Sullivan welcomes this clarification but

opinion that this is a step in the right direction, but that it does not take away from the fact that the CJEU has defined subject matter that it ought to have left to the discretion of national courts in the first place.[111]

The *ISCC* case also had an impact on the EPO, which has since introduced a section in its latest version of the Guidelines for Examination stating that for the purpose of biotechnological inventions, the relevant provisions of the EPC are to be applied and interpreted in accordance with the relevant rules from the Implementing Regulations, and that the Biotech Directive is to be used as a supplementary means of interpretation.[112] This further displays the cooperation that is occurring in the field of biotechnology in the European patent system.[113]

More broadly, perhaps in certain situations, taking decisions on the moral conscience of countries should always be left to individual national courts.[114]

V. CONCLUSION

The involvement of the EU in the European patent system had and has the aim of promoting harmonisation and the functioning of the internal market. Although it only introduced a few relevant pieces of legislation thus far, they have had a lasting effect. So too have the judgments of the CJEU in these areas.

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questions whether it entirely opens the doors for the patentability of inventions involving parthenotes.

111 Timo Minssen and Ana Nordberg, 'The evolution of the CJEU's case law on stem cell patents: Context, outcome and implications of Case C-364/13 *International Stem Cell Corporation*' [2015] 5 Nordic Intellectual Property Law Review 493; Ana Nordberg and Timo Minssen, 'A "Ray of Hope" for European Stem Cell Patents or "Out of the Smog into the Fog"? An Analysis of Recent European Case Law and How it Compares to the US' [2016] 47 IIC 138.

112 Guidelines for Examination in the EPO, November 2015, Part G, Chapter II, 5.3.

113 For more on this topic see, for example: Rob J Aerts, 'The patenting of biotechnological inventions in the EU, the judicial bodies involved, and the objectives of the EU legislator' (2014) 36(2) EIPR 88, 88.

114 For more on taking a different approach to certain subject matters, see: Graeme Dinwoodie, 'Diversifying Perspectives of the International Intellectual Property System' in Christophe Geiger (ed), *The Intellectual Property System in a Time of Change: European and International Perspectives* (LexisNexis 2016).

In some ways, the EU has entrenched the fragmentation of the European patent system by rejecting the practice that was emerging regarding cross-border enforcement in validity and infringement proceedings.

However, in other ways the EU has taken significant steps to harmonise the European patent field. Its most significant step in this direction has been its introduction of the Biotech Directive. While at one level this Directive has increased the degree of fragmentation within the European patent field by adding a further layer of substantive patent law and an additional institution, at another level, it has introduced a supranational instrument governing all aspects of biotechnological invention patenting with which all EU Member States must comply. Indeed, according to many commentators, the Biotech Directive has been *too* successful in its attempts to harmonise patent law. For a start, while only formally binding on the twenty-eight EU Member States, the European Patent Organisation had little choice but to implement its provisions also, effectively extending its legal effects to the ten non-EU Contracting States to the EPC. In addition, by declaring human dignity to be more important than promoting research and development in the medical field through the grant of patent rights, and defining human dignity and human embryo expansively for all EU Member States, the EU and the CJEU particularly have effectively deprived Member States of any margin of appreciation with respect to the meaning and requirements of each of these concepts. In doing so, it reflects the view of international legal scholars considered in Chapter Five that in addition to being inevitable, and capable of being harnessed by certain informal and formal mechanisms, fragmentation is also *positive* in promoting certain values in supranational – including the European patent – legal regimes.

CONCLUSION

Over fifty years after its original inception, the idea for a European unitary patent system has not yet been realised. The difficulties faced have been plentiful and each attempt to introduce a unitary patent system in Europe has been met with fierce debate and criticism. For the most recent proposal, the so-called unitary patent package, this tradition has continued.

One of the most consistent and significant issues that has been at the core of a majority of criticisms is that the existing European patent system is fragmented and that the proposed system will further increase this fragmentation. The almost universal assumption of commentators has been that this is a shortcoming of the system: that rather than increasing integration, the proposed system will add another layer onto the existing layers of the European patent system and thus, add to its existing problems. However, to date no proper consideration of the legitimacy of this assumption has been attempted. Specifically, commentators have not paused to ask what might the consequences be for the European patent system and for substantive patent law if fragmentation is a significant feature of the proposed system. Until this is done, fragmentation-based criticisms of the unitary patent system must remain unproven.

One of the aims of this thesis has been to consider the legitimacy of the assumption regarding the dangers of fragmentation for the European patent system, including substantive patent law. The conclusion reached has been that while fragmentation *is* a central feature of the existing European patent system, and is moreover likely to be a central feature of the proposed European unitary patent system, this is cause for neither criticism nor concern. On the contrary, fragmentation is not only an inherent feature of any European patent system, including any European Union (EU) unitary patent system, but also a desirable one. The reason it is an inherent feature is because of the way legislation has been

introduced into the European patent system. No system has replaced the last, and rather than unifying the area, indirect law making in the form of international agreements and directives has ensured a level of fragmentation. The reason it is a desirable feature is that the goals of European harmonisation and integration are not pursued entirely at the expense of national diversity. For these reasons, the fragmentation that exists within the current and future European patent systems should not be perceived as a negative feature of those systems, but rather embraced as an inherent and positive feature of them, and attention turned to understanding better its challenges and harnessing its positive effects.

There are currently three patent systems available in Europe: the national patent systems;[1] the European (EPC) patent system;[2] and the international (PCT) patent system.[3] Each of these routes to protection has a different: legal basis; procedure for examining and/or granting patents; standard of search and examination; and mechanisms for enforcement and litigation. However, the common feature of all of these systems is that if the applicant is ultimately successful, a national patent is granted – that is: a patent that is validated and litigated in the territory for which it is granted. Patents are territorial and thus, the patent system is described as fragmented. Most criticisms of the European patent system arise due to its fragmented nature and numerous problems have been identified. The risks that have been associated with fragmentation in the current European patent system include: patents being granted in certain Member States and not others due to differing examination standards; differences in the interpretation of substantive patent law provisions by various national and

[1] For example: Patents Act 1977 (UK); and Patentgesetz in der Fassung der Bekanntmachung vom 16. Dezember 1980 (BGBI. 1981 I S. 1), das durch Artikel 2 des Gesetzes vom 4. April 2016 (BGBI. I S. 558) geändert worden ist (German Patents Act).

[2] Convention on the Grant of European Patents of 5 October 1973 (European Patent Convention) (EPC).

[3] Patent Cooperation Treaty 1970 (PCT).

European courts/tribunals; and divergence in the decisions of national courts regarding the same subject matter.

These risks are a reality. Differences in the interpretation of substantive patent law are apparent from the disparate approaches taken by some national courts when compared to the approach taken by the Boards of Appeal of the European Patent Office (EPO). This is evident from the approaches of the United Kingdom (UK) and the EPO towards inherent patentability and inventive step. The reality of these risks can also be seen in divergent results of cases that have previously come before various national courts, from the infamous *Epilady* case in 1990,[4] to as recently as 2014, in *Actavis v Eli Lilly*.[5] In these cases, and many others, national courts across Europe have come to different conclusions on patent validity and infringement when dealing with the same invention.

Furthermore, although the provisions of the EPC have been implemented into the laws of its thirty-eight (current) Contracting States, they have not been implemented using the exact same wording as the EPC. This can also lead to differences in the interpretation of substantive patent law. Additionally, the EU has implemented the Biotech Directive,[6] which contains substantive EU patent law provisions on inventions relating to biotechnology, which are applicable to all EU Member States. These provisions are also taken into account by the Boards of Appeal of the EPO owing to their inclusion in the Implementing Regulations to the EPC. The implementation of the Biotech Directive has also introduced the Court of Justice of the European Union (CJEU) into the field, responsible for interpreting the same basic principles as the Boards of Appeal of the EPO and

4 *Improver Corp v Remington Consumer Product Ltd* [1990] F.S.R. 181 (*Epilady*).
5 *Actavis UK Ltd & Ors v Eli Lilly & Company* [2014] EWHC 1511 (Pat).
6 Council Directive 98/44/EC of the European Parliament and of the Council of 6 July 1998 on the legal protection of biotechnological inventions [1998] OJ L 213/13 (Biotech Directive).

national (EU and non-EU) tribunals, leading to the emergence of further interpretive differences.[7]

It can therefore be concluded that the current European patent system is fragmented: there are various sources of legislation dealing with substantive patent law and a number of different institutions responsible for them, creating divergences in the interpretation and application of that law.

The proposed European unitary patent system, or unitary patent package (UPP), is the latest attempt to solve these problems.[8] If implemented, it will introduce, for the first time, a unitary patent for all participating EU Member States and, a Unified Patent Court (UPC) to deal with disputes and provide cross-border decisions on both infringement and validity. Despite its integrationist aims, the UPP has faced fierce criticism. Problem after problem has been identified, all relating to different aspects of the system – including but not limited to the legal, political, procedural and institutional aspects.

Concerns exist regarding the nature of the rights contained within the Regulations and considerable uncertainty exists regarding the future role of the CJEU under the UPP. After the deletion of Articles 6-8 from Regulation 1257, the nature of the unitary patent right is unclear due to the substantive content of the unitary patent being defined in the non-EU UPCA. Furthermore, whatever role the CJEU declares itself to have, expanding the jurisdictional scope of the CJEU introduces further fragmentation into the European patent system, which may, according to critics, have a negative effect on the European patent system.

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7 For example, the treatment of Article 6(2)(c) Biotech Directive.

8 The package consists of: Council Regulation (EU) 1257/2012 of the European Parliament and of the Council of 17 December 2012 implementing enhanced cooperation in the area of the creation of unitary patent protection [2012] OJ L 361/1; Council Regulation (EU) 1260/2012 of the European Parliament and of the Council 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] OJ L 361/89; and Council Agreement 2013/C on a Unified Patent Court [2013] OJ L 175/01 (UPCA).

Another issue raised by critics is that the Regulations have been implemented using the enhanced cooperation procedure. This mechanism allows nine or more Member States to come together in specific policy areas to further the objectives of the EU. Considering that Spain and Italy did not agree to the language regime of the UPP, the package had to be implemented through the enhanced cooperation process, which was authorised by the European Council. The criticism is that non-participating Member States are to be excluded and discriminated against, and that this will cause further fragmentation in the European patent system due to different laws being applicable in different Member States.

There have also been criticisms of the UPCA. In its transitional period there is the possibility that the same cases could be brought before the national courts and before the UPC. Divergence in interpretation and decision-making could arise if this proves to be the case. The structure of the UPC has also been seen as an issue. Due to the potentially large number of local and regional divisions, as well as the central division split, the UPC will introduce a significant number of new Court of First Instance divisions into the European patent field. Institutional fragmentation already exists and so it is argued that with the introduction of the UPC and all its divisions, this problem will increase.

It can be seen that the criticisms that have been identified, which are the most important criticisms for the UPP moving forward, all share a concern that the UPP will increase the existing fragmentation in the European patent system, rather than reduce it. This prediction seems valid. Indeed, the UPP will further fragment the existing European patent system by adding another source of substantive patent law, introducing another European patent tribunal and expanding the jurisdictional scope the CJEU with respect to patent law, to some

extent at least. It can therefore be seen that just as fragmentation is a central feature of the existing European patent landscape, so too it will continue to be a central feature of the proposed European unitary patent system.

As mentioned, critics have tended to assume that fragmentation is a negative feature of the European patent system. In fact, fragmentation is an inherent and desirable aspect of the European patent system.

The reason fragmentation is an inherent aspect of the European patent system comes down to the methods that have been used to implement legislation in the area. National diversity has always been a key factor in establishing European and international agreements and legislation. For both the EU and the European patent system, pure unification, meant as one system to replace all others, has never been the end goal for European law makers.[9] Provisions have been made to ensure that national diversity and value pluralism be taken into account. In the European patent system, this can be seen in the implementation of the Biotech Directive. Rather than forcing specific terms and conditions on Member States, including terms and conditions involving fundamental rights and other matters on which there is no consensus, a directive was introduced so that it could be implemented by each Member State in a way that was deemed appropriate for that region. This kind of indirect law making will always result in a certain amount of fragmentation.

Fragmentation in the European patent system is quite similar to the fragmentation in the international legal system. Both systems involve a variety of laws and institutions to interpret those laws. Therefore, a timely and relevant

[9] Justine Pila, 'The European Patent: an old and vexing problem' (2013) 62(4) ICLQ 917.

comparison can be made, one that has been recently called for by international intellectual property law scholars.[10]

In the international legal system, fragmentation is seen as an inherent aspect of that legal system and more recently, it has been viewed in neutral and positive terms. Previously, it was seen as a negative aspect of the system and one that had to be removed. However, perceptions have changed and fragmentation in international law is now frequently aligned with national diversity. In addition, interpretative mechanisms, such as the rules on interpretation contained in the Vienna Convention[11] and methods such as systemic integration and judicial cooperation, are regarded in the international sphere as effective means for reducing the risks associated with fragmentation. As a result, the negative view of fragmentation has shifted and international legal scholars now speak in more neutral terms of its capacity to be harnessed and its promotion of diversity instead.

It can be concluded that fragmentation, as an inherent aspect of a system, need not be seen in a negative light. The preconceived notion that fragmentation is a negative aspect of the European patent system cannot be justified. Fragmentation allows for diversity, which is of the utmost importance in a community of States. Indeed, allowing for national diversity and value diversity, especially in areas as sensitive as morality, is more importantly, a desirable feature.

In the argument of this thesis, the European patent system should take a similar approach to that taken in the international legal system. In fact, the process for doing so has already begun. The current European patent system has been subject to some major changes: first, some significant case law from the CJEU;

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[10] See for example: Graeme Dinwoodie, 'Diversifying Perspectives of the International Intellectual Property System' in Christophe Geiger (ed), *The Intellectual Property System in a Time of Change: European and International Perspectives* (Lexis Nexis 2016).

[11] Vienna Convention on the Law of Treaties (Vienna, 23 May 1969, 1155 UNTS 331) (Vienna Convention).

second, the introduction of the EPC; and third, the implementation of the Biotech Directive. The result of these changes has been an institutionalisation of fragmentation by restricting the possibility of cross-border enforcement, by introducing two new sets of substantive patent law provisions, and two new institutions into the field (the EPO and the CJEU).

Although these changes have brought about further fragmentation in the European patent system, the mechanisms that have been used in the international legal system are also being used in the European patent system to reduce the risks associated with it. There are provisions in some Member State legislation to ensure that the provisions of international agreements are taken into account.[12] Judges from all institutions are increasingly taking each other's judgments into account.[13] If diverging from a previous interpretation, the reasons for doing so are often explained. The Boards of Appeal of the EPO use the Vienna Convention for the interpretation of treaties, despite the absence of any legal obligation on them to do so.[14] Furthermore, judges meet biennially at the European Judges' Symposium to discuss current trends and issues in patent law and each other's judgments. It can be seen from these measures that the fragmentation that exists in the European patent system is already being addressed along the same lines as the international legal system.

Additionally, case law shows that not only does fragmentation exist in the European patent system, in certain cases, especially those to do with morality, it is

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12 For example: section 130(7) Patents Act 1977 (UK).

13 See, for example: *Genentech Inc.'s Patent* [1989] RPC 147; *Gale's Application* [1991] RPC 305; *Merrell Dow Pharmaceutical Inc v H.N. Norton & Co Ltd* [1996] RPC 76; *Grimme Maschinenfabrik GmbH & Co KG v Derek Scott (t/a Scotts Potato Machinery)* [2010] EWCA Civ 1110; *Aerotel Ltd. V Telco Holdings Ltd & Ors Rev 1* [2006] EWCA Civ 1371; Decision of the Bundesgerichtshof, 5 May 1998 (X ZR 57/96) – 'Zahnkranzfräser (*Gear rim mill*)'; Decision of the Bundesgerichtshof, 15 April, 2010 (Xa ZB 10/09) – 'Walzenformgebungsmaschine (*Roller-forming-machine*)'; G 5/83 *Second medical indication* of 5.12.1984; G 2/06 *Use of embryos/WARF* of 25.11.2008; T 1441/13 *Embryonic stem cells, disclaimer/ASTERIAS* of 9.09.2014; Case C-34/10 *Oliver Brüstle v Greenpeace eV*. ECLI:EU:C:2011:669.

14 G 5/83 *Second medical indication* of 5.12.1984.

a desirable feature of that system. In *Oliver Brüstle v Greenpeace*, the CJEU defined, as an autonomous concept of EU law, the term 'human embryo', and held the fundamental right of human dignity to require an expansive reading of a related exclusion from patentability.[15] These decisions were taken even though there is no consensus regarding the definition of the term 'human embryo' or the requirements of human dignity throughout the EU. Substantial controversy ensued and although some kind of balance was restored in the *ISCC* case, this was only for a comparatively small issue.[16] The lesson of *Brüstle* is that some level of fragmentation, or in other words, allowing for some national diversity and value pluralism, is desirable. It takes into account the differences that exist between Member States, while promoting harmonisation in the areas in which this can be achieved.

Instead of focusing on a preconceived notion of fragmentation as a negative aspect of a legal system, attention should be drawn to its beneficial impact and emphasis should be placed on how we can harness these positive attributes in order to ensure an efficient and effective European patent system. This can be done with the proposed European unitary patent system.[17] As well as introducing additional laws and institutions, the UPP could also introduce further mechanisms to deal with the current and foreseen level of fragmentation. This would ensure that the risks of fragmentation are reduced, and that the scope it creates for promoting national diversity is exploited.

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15 Case C-34/10 *Oliver Brüstle v Greenpeace eV*. ECLI:EU:C:2011:669.

16 Case C-364/13 *International Stem Cell Corporation v Comptroller General of Patents, Designs and Trade Marks* (*ISCC*) ECLI:EU:C:2014:2451.

17 For a discussion on the role of the UPC and judicial coherence, see: Federica Baldan and Esther Van Zimmeren, 'The Future Role of the Unified Patent Court in Safeguarding Coherence in the European Patent System' [2015] 52 Common Market Law Review 1529.

For example, Article 24 UPCA sets out the sources of law upon which the UPC will base its decisions.[18] These include: Union law; the UPCA; the European Patent Convention;[19] other international agreements applicable to patents and binding on all the Contracting States; and finally, national law.[20] The UPC is formally required to take all relevant patent laws into consideration. Therefore, the relationship between the actors of the European patent system will be of the utmost importance. If implemented, the UPCA will necessitate a dialogue (whether formal or informal) between all national courts, the members of the Boards of Appeal of the EPO, the CJEU, and the judicial panels of the UPC. As the UPC will base its decisions on these various sources of law, it may have the effect of bringing the various interpretations of substantive patent law and jurisprudence of the relevant tribunals closer together, especially in the long-term. The provision in Article 24 UPCA could arguably be seen as supporting the wider introduction into the European patent system of the rules on interpretation from the international legal system, specifically from the Vienna Convention, much as has been done under the EPC.

Another example is the multi-national composition of judicial panels. This kind of composition allows for various judges from different Contracting Member States to come together and decide on issues on which they may have completely different opinions, which will eventually lead to further harmonisation. Furthermore, most panels will consist of both legally qualified and technically qualified judges. In allowing these discussions to take place, a European ideology should begin to emerge, one that takes into account the opinions of all Contracting Member States, and not only the opinions of those that are the 'most' qualified to

[18] Council Agreement 2013/C on a Unified Patent Court [2013] OJ L 175/01 (UPCA).
[19] Convention of the Grant of European Patents of 5 October 1973 – the European Patent Convention (EPC).
[20] Article 24 UPCA.

do so. A European jurisprudence should develop based on current European patent law jurisprudence. Much will depend on how the UPC begins and whether it will try to start fresh or build on the jurisprudence that has built up over the years from the Boards of Appeal of the EPO, national courts and the CJEU (even if it is only to learn from certain mistakes that were made).

Indeed, the UPC will add to the pre-existing fragmentation by introducing another institution into the field; however, so long as the dialogue between the current tribunals continues, and judicial cooperation persists, the addition of the UPC should not have a negative impact on the European patent system or on substantive patent law. Conversely, having national judges sit on benches with judges from other Contracting States, and having a discussion regarding common, as well as controversial, issues will more than likely have a filter effect. This new European precedence might filter from the UPC panels into national courts, thus promoting harmonisation, yet allowing for fragmentation and national diversity in areas (such as the nature of a human embryo, or the requirements of human dignity for patentability) in which reasonable states may reasonably disagree.

Although multi-national panels will be established, it is highly unfortunate that members of the Boards of Appeal of the EPO are not permitted to carry out part-time work as judges of the UPC. The wealth of legal and technical knowledge that exists among the members of the Boards of Appeal of the EPO would almost certainly increase the quality of decisions that would come from the UPC. This is especially so when considering the fact that one of the reasons the UPC has been criticised is for using judges from Contracting States that do not

have much experience in patent law, and whose involvement might therefore weaken the quality of UPC decisions.[21]

One of the major criticisms of the UPC is that it risks developing a tunnel vision and becoming pro-patent. However, on the contrary, the UPC could be seen as a kind of hybrid court – one that is specialist enough to be able to handle the technical subject matter that comes before it, but also required to refer questions on EU law to the CJEU, thereby ensuring a generalist perspective. The result might be expected to safeguard the interpretation of substantive patent law but also ensure that patent law properly takes account of issues of morality and public policy. The UPC may in fact introduce a system of checks and balances to ensure that individual cases are decided with both patent and general law principles in mind.

Additionally, although fault has been found with the structure of the UPC for being highly complex, by having a single Court of Appeal, the risks of divergent decisions for insignificant reasons are significantly reduced.[22] The same can be said regarding the fact that all judges without experience in patent law matters are being and will be trained prior to commencing positions as UPC judges. The mechanisms that are being used and introduced by the UPC have the potential to promote the harmonisation of the European patent system, both now and in the long-term, yet also remain conscious of the appropriateness of some degree of national diversity and value pluralism.

Fragmentation enables national diversity and value pluralism and this is desirable. The beliefs and opinions of Member States are of the utmost

[21] Robin Jacob has also put forward a proposal that legal members of the Enlarged Board of Appeal of the EPO should be national judges that are experienced in patent law, see: Robin Jacob, 'The Enlarged Board of Appeal of the EPO: a proposal' [1997] 19(5) EIPR 224.

[22] Federica Baldan and Esther Van Zimmeren identify some further mechanisms that could assist in judicial coherence such as dissenting opinions and amicus curiae briefs; see: Federica Baldan and Esther Van Zimmeren, 'The Future Role of the Unified Patent Court in Safeguarding Coherence in the European Patent System' [2015] 52 Common Market Law Review 1529.

importance, and widespread definitions that do not take this into account will be to the detriment of the European patent system, and further, to the detriment of Europe. Fragmentation is necessary in order to maintain the respect and cooperation of Member States and to take into account the differences that exist between them. Therefore, fragmentation should be seen as an inherent feature of the European patent system. It should also be seen and embraced for its positive attributes.

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