

Report on the reform of the European patent system

**On the impact of the Unitary Patent
and the Unified Patent Court (UPC) on
Finnish companies**

CONTENTS

Abbreviations Used	i
Prologue.....	ii
Summary.....	iii
1. Introduction.....	1
1.1 Report background.....	1
1.2 Regarding the structure of the report and outlining its questions	2
1.3 Company survey and respondent companies	3
1.4 Changes to current patent system	6
1.5 Changes to current Patent Court system	7
2. EUROPEAN PATENT SYSTEM	10
2.1 Current patent system in Europe.....	10
2.1.1 Applying for protection.....	10
2.1.2 Registering protection	14
2.2 Unitary patent	16
2.2.1 New alternative form of protection	16
2.2.2 Application procedure persists - change to registration	17
2.2.3 Ban on double patenting	19
2.2.4 Geographical scope of the protection.....	20
2.2.5 The consistent protection effect of the unitary patent	21
2.2.6 Translation arrangement and transitional provisions relating to it	22
2.2.7 Temporary protection and translation requirements relating to it	23
2.3 Differences relating to European patents and unitary patents.....	23
2.3.1 Registration of transfers	23
2.3.2 Previous national rights.....	24
2.3.3 Patent limitation and waiver.....	25
2.4 Claims procedure.....	26
2.5 Supplementary protection certificate applications and certificates issued	28
2.6 Alternative forms of protection for unitary patents and European patents	28
2.6.1 National patents	28
2.6.2 Utility models.....	29
2.7 Assessments of the changing European patent system	30
3. Patenting in UPC countries and company scenarios	33
3.1 General information on patenting and patenting strategies.....	33
3.2 Case scenarios.....	34
3.2.1 Case 1 (opt-out during transition period/national patents after the transition period)	34
3.2.2 Case 2 (country-specific/uniform protection and registration of transitions).....	35

3.2.3	Case 3 (geographically extensive uniform protection/country-specific protection)	37
3.2.4	Case 4 (non-patenting company)	38
3.2.5	Case 5 (traditional European patent/unitary patent).....	39
3.2.6	Case 6 (geographically extensive cover/patent in important markets, market expansion)	40
3.3	Summary of changing European patent system	40
4.	Finnish companies on European patent system.....	43
4.1	Regarding current European patent system	43
4.1.1	Advantages and disadvantages of the current system	43
4.1.2	The effect of the London Agreement	44
4.1.3	Is there a need for extensive protection?	46
4.1.4	The term of protection and the opportunity to influence this at country-specifically	48
4.2	General information on the unitary patent	49
4.2.1	Unitary patent's impact on Finnish companies' patenting activity	51
4.2.2	Effect of non-EU companies' patenting on competitiveness of European enterprises.....	52
4.2.3	Finnish companies' product development and production activities in Finland	54
4.2.4	Unitary patent's impact on Finnish SMEs competitiveness	56
4.3	Comparison of the new and old systems.....	59
4.4	National patents	61
4.4.1	National patents combined with the PPH system.....	61
4.4.2	Initial application to the national or the regional patent office?.....	61
4.4.3	Application of privilege to Finnish Patent Office	62
4.4.4	Finnish Patent Office's role in the future.....	63
4.5	The summary of a European patent reform's impact on business	65
5.	UNIFIED PATENT COURT UPC	67
5.1	Outline	67
5.2	Court structure	68
5.3	Court Jurisdiction and Choice of Court	70
5.4	Court language.....	72
5.5	Arrangements during transfer period and opt-out.....	74
5.6	Strategic options for a company	75
5.6.1	Opt-out or not?.....	75
5.6.2	Forum shopping at the UPC.....	77
6.	UPC AND COMPANY SCENARIOS	80
6.1	General information on patent litigation.....	80
6.2	Case scenarios.....	83
6.2.1	Case 1 (infringement/claimant).....	83
6.2.2	Case 2 (infringement/defendant).....	84
6.2.3	Case 3 (annulment/ defendant)	86
6.2.4	Case 4 (infringement/defendant).....	88

6.2.5	Case 5 (infringement/defendant).....	89
6.2.6	Case 6 (annulment/defendant)	90
6.3	UPC's impact in Finland.....	92
7.	FINNISH COMPANIES ON THE UPC.....	96
7.1	Regarding the current legal system.....	96
7.2	Regarding Unified Patent Court UPC.....	97
7.3	Summary of UPC's impact on companies	105
8.	PATENT PACKAGE AS A WHOLE	107
8.1	Patent Package effects on companies' patenting activity.....	109
8.2	Patent package's impact on companies' operational freedom	110
8.3	Of patent flood and companies' operational freedom in the interviews	114
8.4	"Should Finland ratify the UPC Agreement?.....	116
8.5	Finland ratification decision's effects on Finnish companies	123
9.	CONCLUSIONS	126
	FURTHER INFORMATION/ SOURCES	131
	APPENDIX 1	94

ABBREVIATIONS USED

CFI	Confederation of Finnish Industries
ECD	European Commission Document
EP	European Patent
EPC	European Patent Convention
EPO	European Patent Office
EU	European Union
EUR	Euro
FCS	Finance Committee's Statement
FTO	Freedom to Operate
GDP	Gross Domestic Product
GP	Government Proposal
GPPH	Global Patent Prosecution Highway
ICT	Information and Communications Technology
IPR	Intellectual Property Rights
LACS	Legal Affairs Committee's Statement
NBPR	National Board of Patents and Registration of Finland
NPE	Non-Practicing Entity
p.	page(s)
PCT	Patent Cooperation Treaty
PPH	Patent Prosecution Highway
R&D	Research and Development
SEC	Secretariat-General
SME	Small and Medium (Enterprises)
UPC	Unified Patent Court
US	United States
USA	United States of America

PROLOGUE

The European patent system is about to be reformed. The Unitary Patent will co-exist as a new alternative to classical European and national patents, and the new Unified Patent Court (UPC) will have exclusive competence to decide on infringement and validity of patents with a unitary effect in all Contracting Member States. How should Finland react to the reform?

This report investigates the impact of the reform on Finnish companies. For this report a company survey was carried out mainly among active patentees. 55 companies took part in the survey. The survey was complemented by interviews with both company representatives, and various experts. The report would not have been possible without the input of the experts and companies. We give our warm thanks to everyone who took part in the survey and the interviews.

The current system based on national patent protection has been criticised for being fragmented and costly. From a patentee's perspective, Europe is not a unified single market such as the United States, for example. The new patent system seeks to change this.

It is expected that with the reform, competition both globally and within Europe will be tougher than before. In this competition know-how relating to intellectual property will have an increasingly important role. This will affect all Finnish companies operating in patent-intensive areas, regardless of whether Finland takes part in the reform or not.

We hope that this report will encourage especially Finnish companies to consider the possible effects of this reform on their business strategies. The report may also act as a starting-point for future discussion on the reform.

This report commissioned by the Confederation of Finnish Industries (EK) was initiated as a joint project by business and the Ministry of Employment and the Economy. The report's steering group consisted of the project sponsors, i.e. the Confederation of Finnish Industries (EK) and the Finland Chamber of Commerce, Pharma Industry Finland and the Federation of Finnish Technology Industries, as well as KONE Corporation, Nokia Corporation and Wärtsilä Corporation and the Ministry of Employment and the Economy.

The report, which was originally published in Finnish on 15 April 2014, was compiled by Partner, Ella Mikkola and lawyer Mikko Nurmisto from Bird & Bird Attorneys Ltd and Managing Director Karri Leskinen and IPR lawyer Pamela Lönnqvist from Boco IP Oy Ab patent attorney firm.

Bird & Bird Attorneys Ltd and Boco IP Oy Ab have not been involved in the translation of the report.

SUMMARY

A Europe-wide unified patent system has been on the agenda for decades. The current system based on national patent protection has been criticised for being fragmented and costly.

The purpose of the reform that is about to be realised is that the new unitary patent would provide a more cost-effective way to patent an invention using a single registration, potentially in up to 24 EU member states. In patent disputes a ruling by the new Unified Patent Court (UPC) would be effective in all member states participating in the unitary patent system. In addition to unitary patents, the UPC will eventually also deal with matters relating to traditional European patents for countries taking part in the system.

Each member country can decide independently whether they wish to join the system or not. This report studies the impact that the reform of the European patent system has on Finnish companies. This report takes into account both the scenario of Finland being part of the system, as well as Finland opting out. The assumption was that the reform will take place regardless of Finland's decision. For the report, a survey was carried out among active patentees. The survey has been complemented by interviews with both company representatives, and various experts.

Respondents to this company survey felt the reform would mainly offer benefits compared to the current system. The majority of company respondents also welcomed the fact that Finland would participate in the new patent and court system. When the companies were asked whether Finland should ratify (implement at a national level) the UPC Agreement, 71% of the respondents answered either "yes", "probably yes" or "depends on which other countries have ratified the Agreement." Only 7% of the company respondents gave negative answers ("no" or "probably no"). One-fifth did not know.

About half of the company respondents felt that the most favourable situation for themselves would be if almost all the other countries, or at least the countries important to the company ratified the UPC Agreement. Alternatively, a number of them felt that Finland should wait until there is more experience about the system.

There are, however, open questions relating to the costs and practices of the new system. Another factor making it more difficult for companies to form an opinion is the fact that 60% of all respondents were either little or not at all familiar with the reform to date. Particularly SMEs lacked information about the report. Only one in ten SMEs had familiarised themselves either well or fairly well with the new reform.

The survey and interviews also revealed threats relating to the reform. With the unitary patent, it is likely that the number of patents in the participating countries will increase. Existing patents owned by competitors limit the freedom to operate of companies. The risk of patent infringement also increases as the number of patents increases. This can cause additional challenges to domestic companies operating in patent-intensive areas, regardless of whether the company has its own patents or not.

Finland could protect itself from potential threats by opting out from the new system. Finnish companies could still utilise the system elsewhere. However, a clear political risk was associated with such a "free-rider solution". Additionally, in the company interviews it was considered important that Finland would be involved in the reform, so that Finnish intellectual property-related know-how would not fall behind other countries. Should Finland decide to participate in the system, Finnish companies should perceive the whole of the EU as their domestic market. This way of thinking could encourage the internationalisation of Finnish companies.

On the other hand, it was argued that the operational preconditions of the Finnish Patent and Registration Office would be undermined if Finland were to participate in the system.

The report highlights these opportunities and threats created by the European Patent reform.

1. INTRODUCTION

1.1 Report background

The exclusive right for commercial exploitation of an invention conferred by a patent has been recognised as a catalyst for innovations and thus economic growth. Concern over Europe's competitiveness alongside major patenting countries, such as the U.S. and Japan as well as emerging countries such as China, has led to demands to modernise the European patent system. The reform project has been pending for decades. The objective of the reform coming into force in the next couple of years has been, among other things, to reduce the cost of patenting in Europe and to create a simpler and more cost effective judicial system.

This report examines the impact of the reform of the European patent system has on Finnish companies. The reform will introduce a new patent registration procedure and court mechanism in the European Union. European patents with unitary effect (Unitary Patent) make it possible to register the patent centrally with effect in all of the participating EU member states. Patent-related disputes will, in turn, be resolved in a single litigation in all the participating member states at the Unified Patent Court (UPC). As a whole, this reform may be referred to as the EU patent package.

The patent package consists of two parts: 1) regulations regarding unitary patents in order to enhance cooperation to create unitary patent protection, and 2) the unified patent court. The parts of the patent package are inter-connected. The system will enter into force once at least 13 EU member states have ratified the Unified Patent Court (UPC) Agreement. These states must include the United Kingdom, Germany and France.



The report examines the effects that 1) the unitary patent, 2) the Unified Patent Court and 3) the entire patent package will have on Finnish companies. The effects, especially threats and opportunities created by the new system to Finnish companies are examined in a scenario where a) Finland ratifies the UPC Agreement and also in a scenario where b) Finland does not ratify the agreement.

This report can be utilised by the Finnish Government and Parliament while assessing the UPC Agreement ratification. Therefore, this report focuses on the effects of the ratification of the agreement. At the same time, however, the report may also benefit the companies. The decisions will have implications for all Finnish companies operating in patent-intensive areas regardless of whether the company itself applies for patents or not. Companies should assess the impacts of the reform on their own business strategies, now, while Finland is still considering whether to participate or not.

Each EU Member State, which is also a member of the European Patent Convention (EPC) may independently decide whether to take part in the new patent system or not. The system is, however, available to be used by all companies worldwide.

The UPC Agreement has been signed by 25 EU member states. Spain, Poland and Croatia have not signed the Agreement. Italy has signed the Agreement but is not participating in the unitary patent system. In early 2014 only Austria had ratified the UPC Agreement. The ratification by France, Belgium, Luxembourg and Malta was expected to take place during the

spring. In Denmark a referendum on the ratification will take place in the spring. The system is expected to enter into force in 2016 or by the end of 2015 at the earliest.

The report has been commissioned by Confederation of Finnish Industries (EK), and it has been carried out by Bird & Bird Attorneys Ltd in cooperation with Boco IP Oy Ab patent attorney firm.

1.2 Regarding the structure of the report and outlining its questions

With regards to Finland, the following options are foreseeable in terms of the realisation of the patent package:

- 1) The number of countries ratifying the UPC Agreement is not sufficient, and the reform will not take place in Europe at this point.¹ Thus the patent system remains unchanged.
- 2) Finland ratifies the UPC Agreement, the unitary patents extend to Finland and the UPC's rulings are enforceable in Finland.
- 3) Finland does not ratify the UPC Agreement, the system will, however, enter into force in the rest of Europe. Finnish companies can acquire unitary patents, and Finnish companies operating in UPC countries may have to deal with a new court system.
- 4) Finland decides to wait and delay ratification until the UPC has been operating for some time, until we can see how the system works in practice.

The report mainly focuses on options 2 and 3. In such scenarios it is primarily the advantages and disadvantages for Finnish companies resulting from Finland participating or not participating in the new system that must be examined.

Therefore, the report assumed that the European patent system is reformed in any case (regardless of the Finnish ratification decision): a new unitary patent will co-exist with traditional national patents and European patents, and the new Unified Patent Court will deal with litigation for both traditional European patents and unitary patents. In every scenario the patent package will have an impact on the business activities of Finnish companies operating in Europe. With its ratification decision, Finland can mainly influence whether the unitary patents and the decisions of the Unified Patent Court extend to the Finnish territory or not. The report examines the effects of the ratification decision from this perspective.

In any scenario a Finnish company may, for example, obtain a unitary patent in at least 13 other European countries (including the United Kingdom, Germany and France), even if Finland has not ratified the UPC Agreement.² In such a case, a company may find it detrimental that the protection of a unitary patent does not extend to Finland, and that a European patent (or national patent) must separately be validated at a national level. Another company may find it to their benefit that negative rulings of the UPC will not extend to Finland.

The reform is a complex entity, consisting of several parts, the details of all aspects of which could not be taken into account in this report. The open questions have been left outside the scope of this report. These include, for example, the costs and procedural provisions relating to the unitary patent, the amount of court fees, the Rules of Procedure of the UPC Agreement, as well as the effects of the Brussels I Regulation amendments.³ This report will focus on the practical, main features of the reform of the patent system

¹ The reform may not take place if the United Kingdom, Germany or France fail to ratify the UPC. In addition, for example, Spain has referred questions to the Court of Justice of the European Union on whether the system is compatible with EU law or not. Of these, cases C-146/13 and C-147/13 are still pending in the Court of Justice of the European Union.

² If Italy is among the first countries to ratify, the unitary patent could extend to a minimum of 12 countries, as Italy would be participating in the UPC but not in the unitary patent system.

³ This report focuses on the main aspects and impacts of the reform. The open questions that have been excluded from the report, however, may also contribute significantly to the impact of such a reform.

while, for example, the economic impact assessment and analysis of the legal details remain outside the scope of the report. For example, the cost of the new system is an essential element in terms of the risk/benefit assessment of companies, and in terms of final strategic decisions. Thus, more detailed answers to the questions highlighted in the report could be obtained at a later stage in the form of an economic impact assessment.

However, where necessary, the report also attempts to take into account the costs and the legal details. This report is divided into two main sections, addressing the unitary patent and the Unified Patent Court. Each section first describes the main features of the patent system reform. It then examines the effects the reform has on Finnish companies at a theoretical level depending on whether Finland ratifies the Court Agreement or not. The opinions of the companies are outlined based on the results of the survey and the interviews.

The third section of the report examines the effects that the patent package as a whole has on companies. This section summarises the potential effects of Finland's ratification decision.

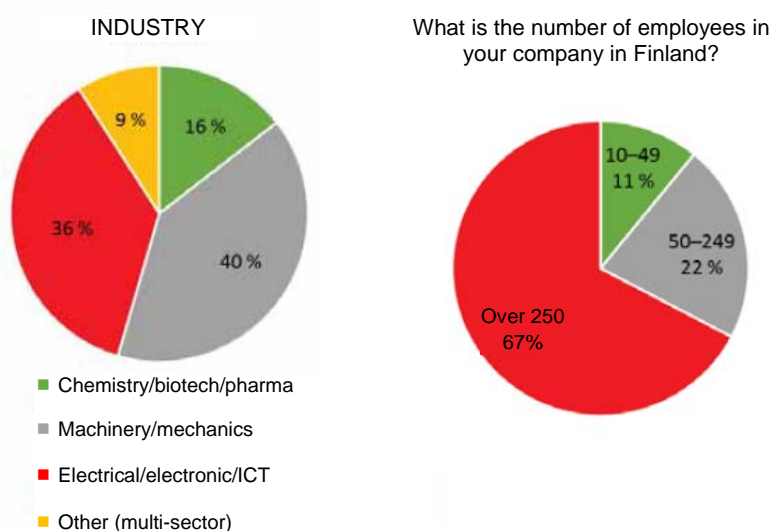
1.3 Company survey and respondent companies

As source material, this report utilises available documents and writings, the results of a company survey and interviews conducted for this report.

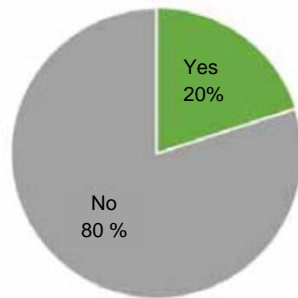
Invitations to participate in the web-based survey was sent via e-mail by the Confederation of Finnish Industries (EK) to a total of 110 patenting companies across various industries. 55 companies took part in the survey. Therefore the response rate was 50%.

In addition to the company survey, 15 interviews were conducted. The interviewees consisted of representatives from the companies taking part in the company survey, as well as representatives from other companies. In addition to company representatives, certain experts were interviewed. The majority of interviews were conducted face-to-face, however, some were conducted over the phone and e-mail was utilised for some of the interviews.

Respondent companies to the company survey



Does your company form part of an international group the domicile of which is not in Finland?

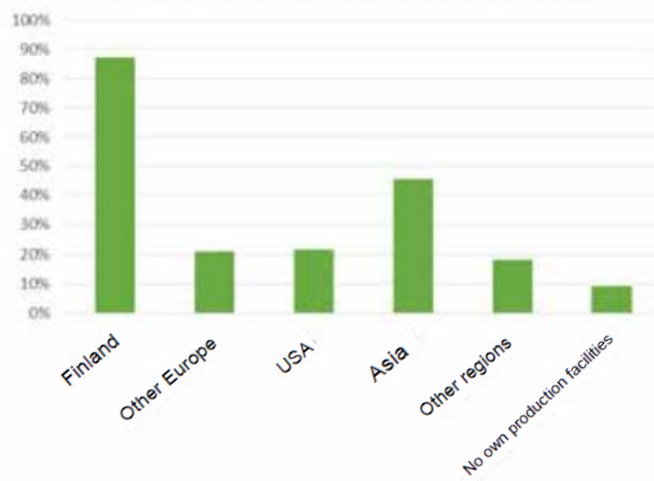


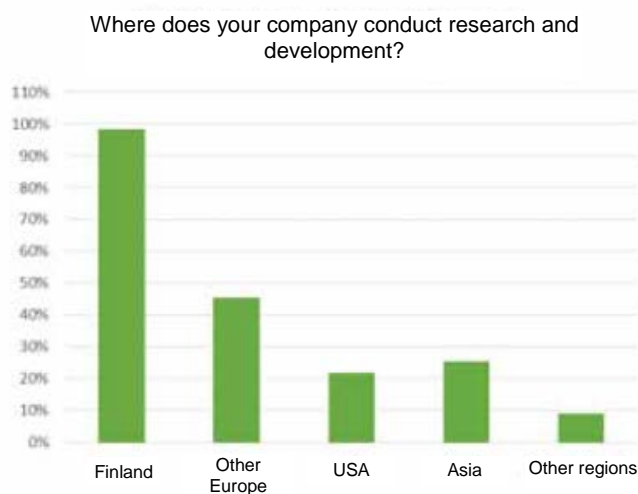
On average, how many European patent applications has your company filed annually



■ 0 ■ 1 ■ 2-10 ■ over 10

Where are your production facilities based?



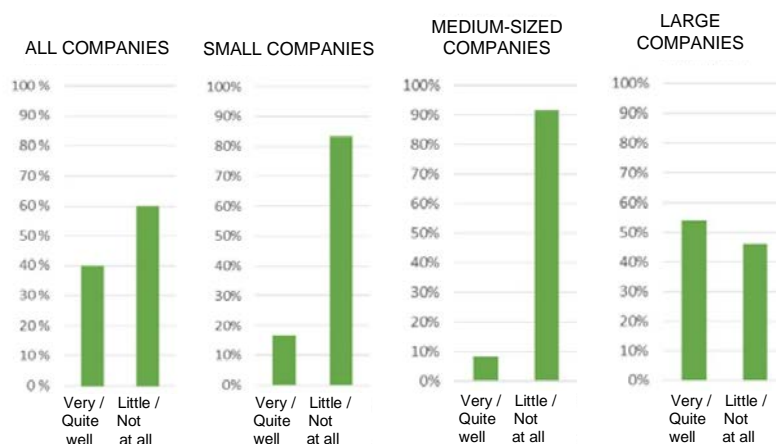


The company survey was sent to active Finnish patentees of various sizes operating in various industries. The companies that responded to the survey had a fair amount of experience in applying for patents over the past five years in Finland, in Europe and outside of Europe. Some of the companies had extensive patent portfolios while some of the younger companies had only started building their patent portfolios. Only six companies out of the 55 survey respondents had not applied for any European patent applications in the past five years. However, the impact assessment aims to reflect the entire Finnish corporate field.

The survey was quite extensive and it could take at least about 45 minutes to reply. Taking into account the laborious nature of the survey, the response rate can be considered to be quite good. This reflects the fact that the companies are taking the subject seriously.

The respondents were willing to take part in the survey even if the reform of the European patent system is not yet familiar to many. 60 percent of respondents said they had familiarised themselves with the reform only a little or not at all. It should be noted that out of the small and medium -sized enterprises (10-249 employees), only one in ten had familiarised themselves with the reform well or fairly well.

HOW FAMILIAR ARE YOU WITH THE PENDING UNITARY PATENT AND THE UPC SYSTEM?



A number of respondents to the survey noted that the survey questions were difficult to answer, despite having familiarised themselves with the topic, mainly because these companies operate in a number of different business areas. Thus, the impact of the patent system reform may differ also within the same company depending on the field of technology and area of business. In addition, many respondents stressed the fact that it would be possible to give different answers to many of the questions, depending on whether the focus is on the company's role as a patentee, or as a competitor. Since almost all companies operate in both roles, the impact of the reform may also, therefore, be very different.

The interviews also highlighted the view that the companies may not consider it necessary to familiarise themselves with the reform at this stage. This is particularly due to the fact that not all the details of the reform are clear at this stage.

The respondents' lack of knowledge must be taken into account when analysing the final results of the survey. In particular, when comparing the results based on company size, it should be remembered that the SMEs' knowledge of the matter was particularly low. One of the aims of this study is to provide companies with more information, and to encourage companies to consider the effect the reform of the patent system will have on their own business activities.

When presenting the answers given in the survey, the respondent company's size or industry has been taken into account when significant differences were observed. As a general rule this was not the case. Replies based on the company's industry and size have been dealt with caution since the number of respondents remains small when divided into smaller samples, and there are great differences between companies even within these groups.

1.4 Changes to the current patent system

At present a Finnish company may apply for patent protection in Finland, either directly as a national patent, as a European patent validated in Finland or via the international patent application system as a national or European patent. National legislation applies to Finnish national patents and patent applications. The European Patent Convention (EPC) mainly applies to European patents and patent applications, however, where applicable, national legislation applies to European patents that have been nationally validated in Finland. In addition, the international Patent Cooperation Treaty (PCT) applies to the patent application process when the international patent application system is utilised.

The same options are available when applying for a patent in other European Patent Convention countries with few exceptions. The Finnish national patent is granted by the Finnish Patent and Registration Office (PRH), while the European Patent Office (EPO) grants European patents that separately need to be validated in Finland.

Now, with the reform of the European patent system, companies will be able to obtain a brand new form of protection alongside the traditional European patents and national patents; a European patent with unitary effect ("unitary patent"). It is intended to be a regional, cross-border alternative to the existing traditional European patent, which needs to be validated separately in the countries of interest after being granted. In the future, the company can decide whether it will register its European patent application as a bundle of classical European patents or alternatively as a unitary patent.

Once the system enters into force, the unitary patent offers companies an opportunity to protect their inventions in a wider geographical area in a more cost-effective way. With the unitary patent, the patentee could register unified protection for its European patents simultaneously in up to 24 EU countries. This protection would, therefore, be equally valid and extensive in all the countries participating in the enhanced cooperation.

Unlike the previous Community patent proposal the currently proposed unitary patent would not automatically be extended to all EU member states, but only the member states participating in the enhanced cooperation. However, all EU member states may join the unitary patent system.

The unitary patent system is based upon the existing European patent system, so the patent application and granting process is thus also governed by the European Patent Convention (EPC) in the future. For this reason, countries participating in the unitary patent system must also be EPC Contracting States. Therefore the unitary patent differs, for example, from the community's trade mark, design and plant variety protection in that the body issuing and administering unitary patents, the European Patent Office (EPO), is an international body independent from the EU.

1.5 Changes to the current Patent Court system

Europe did not have a single judicial system to deal with cross-border patent disputes. Thus, disputes regarding European patents are currently adjudicated the same way as disputes over national patents by the national court of each state with the effects only pertaining to the state in question.

This leads to a situation where patentees wishing to enforce their own patent must bring actions against the alleged infringer separately in the national courts of each country. Similarly, the defendant may have to defend themselves in similar cases often filed in various different countries. After the opposition period, revocation of the European patent must be applied for in all those countries in which the patent has been granted.

In its 2007 communication the Commission estimates that the legal costs of the current system can become an insurmountable obstacle particularly for SMEs and individual inventors. Patents, for the acquisition of which considerable sums of money may have been invested, may turn out to be virtually worthless, if it is not possible to enforce the patent rights against infringers. In particular, the risk of multiple litigations is considered to discourage SMEs from applying for patents.

In addition to legal costs, one of the perceived shortcomings of the system based on national patents is the considerable differences between national legal systems and in the way the courts handle patent cases. For example, in Germany infringement and revocation actions are separated from each other, while, for example, in the UK, France and the Netherlands, as well as in Finland, both infringement and revocation actions are dealt with at the same Court.

⁴ The planned EU-wide Community patent system did not enter into force as it was. Negotiations over the system broke down in late 2010 to disputes regarding patent translation requirements. The previous Community patent proposal has been addressed, for example, in the 2008 Community Patent report. Määttä–Keinänen (2008).

This leads to the fact that in different countries the judgments may differ or may even be contradictory. The differences may arise in critically important issues such as patent subject matter and of the extent of the European patent protection.⁵

Attention has also been drawn to the varying levels of qualifications and experience of national judges. In some countries there are specialized patent courts, whereas in other countries they do not exist.⁶

It is due to these national differences that the parties may seek to bring an action in the jurisdiction, which they feel is more in favour of their interests (forum shopping). The choice of jurisdiction may also be influenced by, for example, legal costs and the time it takes to process cases, which also varies greatly across countries.⁷

National differences in the practices and solutions regarding European patents, has been perceived to lead to legal uncertainty. The aim of establishing a Unified Patent Court has been to correct these deficiencies:

- in the new Patent Court the patent litigation rules are the same everywhere;
- judges are experienced and, if necessary, a technical judge is available;
- Joint Court of Appeal promotes harmonisation;
- the matter is resolved in a single trial with single litigation costs; and
- the Court gives a ruling within 12 months.⁸

During the patent system reform process the Legal Affairs Committee of the Finnish Parliament has found it important, among other things, that issues relating to European patents and possibly unitary patents could be addressed in a Court in Finland. The committee has felt that it is essential to ensure the uniformity of legal practice.⁹ According to the Parliamentary Economic Committee a predictable and efficient judicial system would be likely to increase the attractiveness of patenting.¹⁰

The Unitary Patent Survey of 2008¹¹, only vaguely addressed the judicial system. With regards to the effect of patent disputes, the survey only stated that potential disputes would not have much impact on the willingness of companies to patent their inventions. The lack of legal certainty was seen as problematic when making patenting decisions. Many of the survey respondents felt that a patent court was important.

⁵ The Commission provides the Epilady case as an example of conflicting decisions in the dispute pertaining to the same patent. In that case the courts of the various states provided different interpretations of the patent claims. As a result, the German, Dutch and Italian courts found that patent violation had occurred, while in the UK and Austria, the courts had a different view. The fragmented nature and significant differences of the current European patent court system were also observed in a survey published in 2013. According to the survey, concurrent trials between the same parties on the same patent in different countries were the highest in the UK (26 per cent) and the Netherlands (15 per cent) and lowest in Germany (2 per cent) and France (6 per cent). The study noted that most of the patents, however, were litigated only once. Cremers (2013), p. 60.

⁶ In Finland patent litigations have been centralised to the Helsinki District Court in the past. Today, intellectual property rights and copyright matters are dealt with in the Market Court.

⁷ Mooney (2013). For example, in the UK and the Netherlands, patent litigation usually takes 6-12 months, whereas, for example, in France, it will take 2-3 years.

⁸ Mooney (2013).

⁹ LaVL 7/2007 vp - E 140/2005 vp.

¹⁰ TaVL 8/2007 vp - E 140/2005 vp.

¹¹ Määttä-Keinänen (2008).

The current situation is fundamentally different from that of the 2008 study. It is assumed that the system is going to be implemented in any case. The question currently is: which scenario would be more beneficial for Finnish companies - the fact that Finland is included in the system, or the fact that Finland is excluded. In both scenarios, the system is available for use by Finnish companies, whether Finland is included or not. The unitary patent will be an alternative that will co-exist with current patent types. It should be noted, however, that the new court system changes litigation as regards European patents in all UPC member states. Eventually, all of the member states' European patents would be transferred to fall under UPC's jurisdiction.

The 2009 report "Economic Cost-Benefit Analysis of a Unified and Integrated European Litigation System" commissioned by the Commission's strongly recommended the unified court. According to the report, even with the most conservative estimates the benefits of the system outweigh its costs many times over. The report shows that the benefits of the new court consisted of, among other things, 1) prevention of duplication of proceedings, 2) the change of demand for litigation, and 3) changes to the patenting incentives.

The report's results have been called into question, by the United Kingdom, among others. According to the 2012 report "The Unified Patent Court: help or hindrance?" by the European Scrutiny Committee EU's cost assessment was based on outdated assumptions. The report estimated that the unified patent court system would be more expensive than the current system and would rather prevent than assist the enforcement of SMEs patent rights in particular within the European Union. At the same time, however, it was considered that for the UK the disadvantages would be reduced by joining the system; especially if the Court's Central Chambers were located in the country.

In March 2013, Poland notified that it would not sign the UPC Agreement. With this decision Poland will be excluded from the unitary patent system. Poland had previously expressed its commitment to the unitary patent system. Resistance of the system was based on, inter alia, the fact that the automatic geographically extensive cover provided by the unitary patent would increase the number of patents valid in Poland, which would limit the operational freedom of Polish companies. Firms would also incur costs as they would have to license foreign companies' patents.¹²

Finland is presumably in a different situation in comparison to the UK and Poland. In terms of the patent court system, Finland has different things to gain and to lose. Finland is not the same type of hub for European patent litigation as the United Kingdom. On the other hand, Finnish companies' patenting activity is much higher than Polish companies'. A single patent court would be likely to be more beneficial for Finland than Poland, and less so than for the United Kingdom. It is not possible, however, to draw conclusions on this basis on which scenario would provide more advantages or disadvantages – UPC ratification or non-ratification.

¹² Deloitte Polska (2012). Also see Xenos (2013).

2. EUROPEAN PATENT SYSTEM

2.1 Current patent system in Europe

The current patent system in Europe is primarily based on two parallel forms of protection, 1) national patents, and 2) regional European patents.

- 1) National patents granted by the Finnish Patent Office (PRH) may be based on a direct Finnish patent application or on an international PCT application, for which a national phase application has been filed in Finland.
- 2) A European patent granted by the EPO may be based on a regional European patent application or an international PCT application, for which a regional phase European patent application has been filed, and which has been nationally validated in Finland.

Now, in some of the EU member states, a third form of protection will come to co-exist parallel to the two traditional forms of protection; a European patent with unitary effect, that is, a unitary patent.

The new unitary patent system will most likely have significant impact not only on the current European patent system, but also on the system based on national patents.

This section first addresses the current traditional European patent system, which also forms the basis for the unitary patent system. Then, the European patent with unitary effect, i.e. the unitary patent will be examined, and these two alternative forms of protection will be compared with each other. Finally, we will also briefly address the potential effects the reform will have on the system based on national patents.

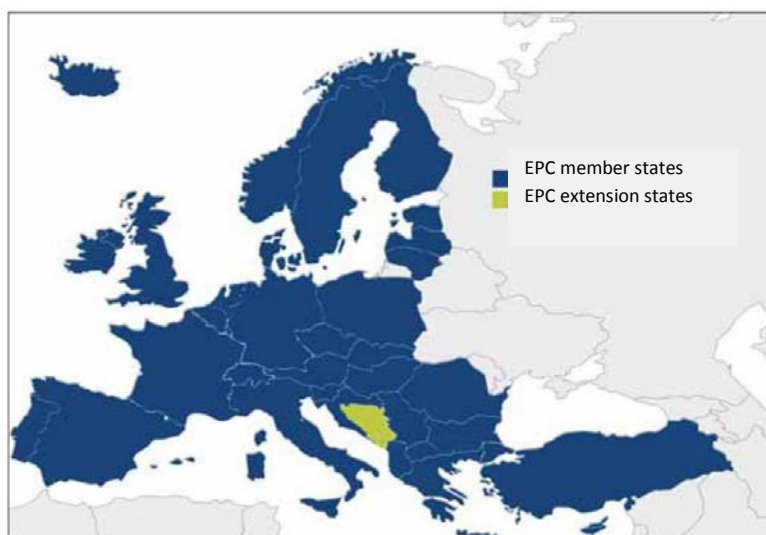
2.1.1 Applying for protection

The European Patent Convention (EPC) is a separate international agreement independent of the European Union, which was signed in 1973 and entered into force in 1977. Finland took part in the negotiations, but it took until 1996 before Finland joined the agreement. It was, however, possible for Finnish applicants to use the EPC system before Finland joined the system.

The EPC Agreement has been designed to enable the grant of a patent with a single centralised application procedure. The agreement currently covers 38 actual member states and two so-called extension states.¹³ A single application can, therefore, lead to a patent in 40 countries. A European patent can, however, be entered into force only in those Contracting states that have joined the agreement at the time of filing the application.¹⁴ For example, European patents having effect in Finland can only be granted based on applications filed on or after 01.03.1996, in which Finland is mentioned as a designated state in the European application.

¹³ <http://www.epo.org/about-us/organisation/member-states.html>

¹⁴ Currently, all the countries of the EPC Agreement are automatically designated in the European patent application. The applicant, however, may withdraw the designations before the patent is granted.



One of the official EPO languages, which are English, German or French, must be selected as the procedural language of the European patent application. The selection is binding and cannot be changed later during the application process. The application may be filed in Finnish (or any other language, including a language other than the language of one of EPC member states). The applicant must within two months from the filing date, provide a translation of the application in one of the official languages of the EPO, which then becomes the official application procedural language. Applications may be filed directly to the EPO or to the national office of a member state, if it is possible under national law. At the final stage of the application process, the applicant shall also submit translations of the patent claims as approved, in the other two official EPO languages before the patent is granted.¹⁵

The EPC Convention exhaustively lists all patenting requirements, as well as the grounds for opposition and revocation. The EPO examines and publishes European patent applications and grants European patents and handles potential oppositions filed against the patents. In addition, the EPO maintains and manages a register of European patent applications, receives annual fees payable for patents, and centrally registers changes of ownership of European patent applications. The EPO's jurisdiction ends when the European patent is granted, in which case the jurisdiction is transferred over to those national patent offices, where the applicant has validated the European patent. It is estimated that the average time of the prosecution of a European patent application is approximately six years.

If an opposition is filed against the patent within the nine-month opposition period following the publication of the mention of the notice of grant in the official patent bulletin, the EPO's competence is restored temporarily for the duration of the opposition proceedings (and appeal). In the opposition proceedings, the EPO can maintain the European patent in force or revoke it in whole or in part. Similarly, a limited temporary competence will be restored to the EPO for the duration of the limitation proceedings, if the patentee requests for a centralised limitation of the European patent.

In the past five years, the number of patent applications filed with the European Patent Office (EPO) has been increasing slightly. In its annual report¹⁶ EPO publishes two types of statistics concerning the number of applications, which can cause confusion and even erroneous conclusions.

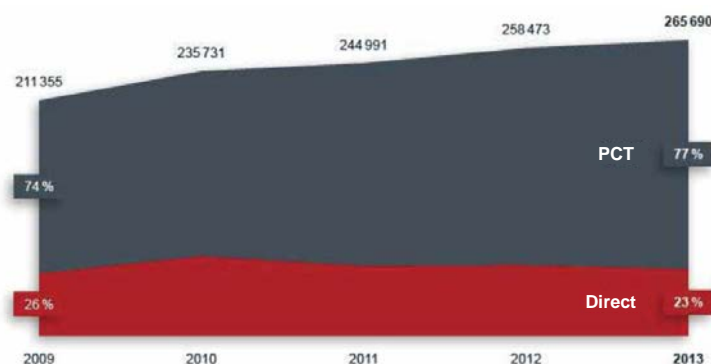
¹⁵ Translations shall be submitted to EPO when the applicant has received a Communication under Rule 71 (3) EPC.

¹⁶ The figures used are from the EPO's 2013 annual report, <http://www.epo.org/about-us/annual-reports-statistics/annual-report/2013.html>

A European patent application may be filed, either directly to the EPO or through the PCT system. However, not all applications filed through the PCT system, and designating the EPO designated, ultimately end up becoming European Patent applications. In 2013, the number of PCT applications was more than 200 000 for the first time, but in the light of previous years' statistics it is expected that less than half of these applications will eventually become actual European Patent applications.

In its statistics, which includes all PCT applications, the EPO uses the term "European patent filings" (a total of 265 690 applications). However, no evident Finnish translation exists for this term since another statistics that only takes into account applications that actually ended up in the EPO, is called the "European patent applications" (a total of 147 869 applications). In Finnish both could be referred to as European patent applications, which is likely to cause confusion. Reading these statistics requires a more in-depth understanding of the system, since there is an obvious risk of misinterpretation.

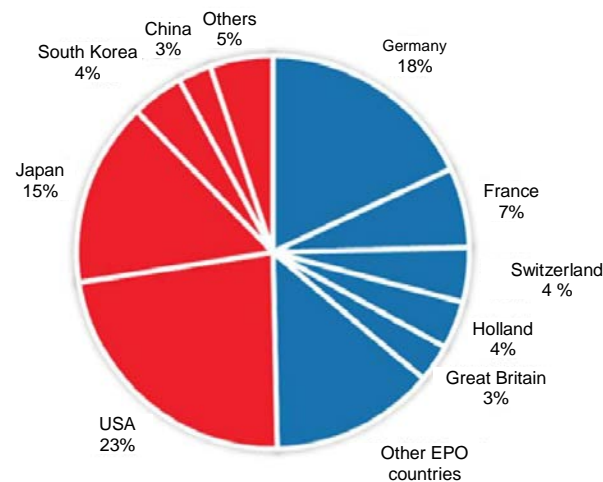
Based on these statistics, we can see that the number of direct European patent applications has decreased in recent years, both in absolute and relative terms. Last year only 23% of the European patent applications were filed directly to the European Patent Office (EPO) while the remaining 77% were explained by PCT applications, less than half of which will be continued as European patent applications.



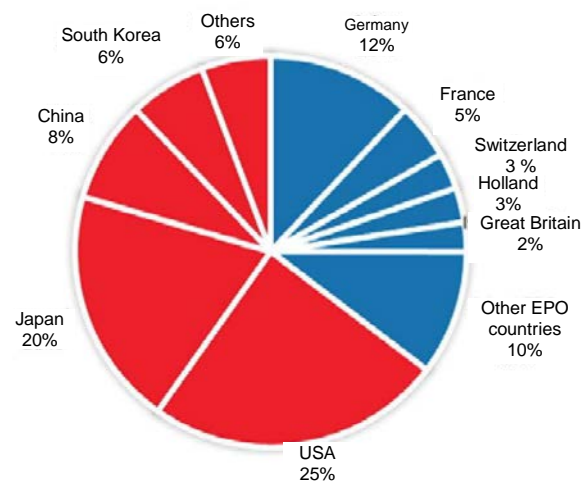
The statistics therefore seem to be very different depending on which material is used for the compilation of statistics. If all of the world's PCT applications are considered, based on which it is possible to extend the application to EPO, the statistics show a particularly pronounced increase in the patenting activity in Asia. Particularly the Chinese, Japanese and Koreans have submitted large quantities of PCT applications in recent years. However, this has not yet led to a similar increase in European patent applications. Similarly, for Germany and the US, statistically speaking there has been no change in the patenting activity in the past five years.

Based on "European patent filings " we can state that only 35% of the applications filed with the European Patent Office originate from EPC Contracting States while 65% of the applications come from outside Europe (these statistics take into account a total of 265 690 applications). On the other hand, when statistics are examined for those applications, which actually have become European patent applications, the figures are 50% and 50%, as shown in the images below (these statistics take into account a total of 147 869 applications).

European patent applications in 2013



Patent applications filed with the European Patent Office (EPO) in 2013, including PCT applications designating the EPO.



Even though the EPO statistics for PCT applications seem to suggest that two thirds of the applications originate from non-European countries, it is much more meaningful to draw the analysis based on actual European patent applications.

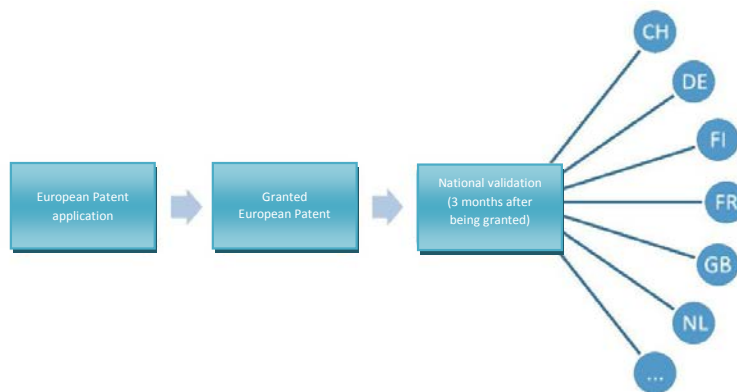
According to statistics of European patent applications from 2013, among the top 20 applicant countries, only 48.5 percent of the applications originate from non-European countries. As regards European patents granted, this is more strongly dominated by European patent applicants. However, based on PCT application statistics, it can be expected that the increased patenting activity of Asian companies in the long-term will also impact statistics on European patents.

When comparing the most active candidate countries, Finland is ranked 14th for European patent applications, and if only European countries are taken into account Finland ranks 10th. Finland nicely ranks 3, when the number of applications is put in relation to the total population,¹⁷ with only Sweden and Switzerland ahead of Finland. This is the most telling number when comparing the innovativeness of different countries with each other.

In 2013, 1895 European patent applications originating from Finland were filed with the European Patent Office. Sweden was ahead of Finland, with almost twice as many applications originating from Sweden, totalling 3668. Proportional to the population, the difference between Finland and Sweden is not large: Finland had 360 applications per million inhabitants; Sweden had 402 applications per million inhabitants. In these statistics Switzerland has a class of its own: 832 applications per million inhabitants.

2.1.2 Registration of protection

A European patent application does not lead to a supra-national patent; a European patent must still be validated in each desired country within three months from the publication of the mention of the grant of the patent in the official European patent bulletin. Therefore the European patent is considered to form a bundle of national patents, each of which must be given the same legal status as is given to patents granted by national patent authorities.¹⁸



The national legal effect of the European patent begins on the date on which the mention of its grant is published in the European Patent Bulletin. Also, the national jurisdiction of the Contracting states begins on the same date. The EPC Contracting states may, however, decide that the European patent has no legal effect in that state until the patent documents have been translated into the agreement state's official language.¹⁹

The traditional European patent system, which is based upon nationally validated patents, has been criticised for being complicated, fragmented and costly. In particular, the translation costs relating to the European patent application process has been criticised. The so-called London Agreement, which was signed on 17.10.2000 and entered into force on 1.5.2008, has reduced the translation costs of of European patents.

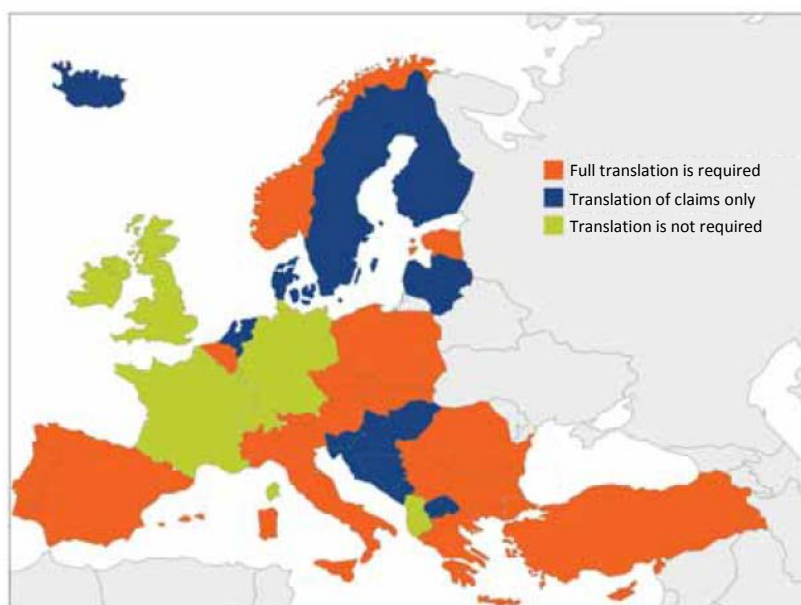
¹⁷ The dwarf states of Liechtenstein, Luxembourg and Monaco have been excluded from the population-based comparison, all of which would be ahead of Finland, where included in the comparison.

¹⁸ National laws of the countries in question apply to European Patents. The grounds for revocation of European Patents, however, are exhaustively listed in Article 138 of the EPC Agreement.

¹⁹ EPC Article 65

The EPC Contracting states which joined the London Agreement undertook to remove certain translation requirements for European patents when they are validated at a national level. Finland joined the Agreement on 11.01.2011, and in March 2014 the Agreement covered 20 countries, 14 of which are EU Member States.²⁰

The map below illustrates the situation when the language of the European patent is English.



The requirement for translations of the granted European patent depends on the country in which the patent is to be validated. Some of the EPC Contracting states, such as Spain, Italy and Poland still require the applicant to submit a translation of the entire patent. However, a significant number of the EPC Contracting states, in whole or in part, have waived the requirement for a translation of a European patent.

If the language of a European patent is English, there is, for example, no longer a need to translate the description into Finland, but it is sufficient if the applicant files a Finnish translation of the patent claims.²¹ Similar rules are in place in Sweden and Denmark.

Some countries, such as France, Germany, Great Britain, Ireland and Luxembourg, have completely abandoned the translation requirement. Some of the countries where no specific validation requirements have been set, the European patent will automatically come into force from the date on which the mention of its grant is published in the European Patent Bulletin, regardless of whether the patentee has specifically requested for it or not.

With the London agreement, several countries have therefore, in whole or in part, abolished the requirement for translations. This has significantly reduced the validation costs of European patents and thus improved the competitiveness of the European patent.

As Määttä and Keinänen's study estimated, the significance of the translation requirements and the cost is not as straightforward, or as relevant, as it has sometimes been suggested.²² Most European patents are validated only in few of the more important countries.²³

²⁰ <http://www.epo.org/law-practice/legal-texts/london-agreement.html>

²¹ If the applicant's mother tongue is Swedish, the application may also be submitted in Swedish.

²² See e.g. Määttä–Keinänen (2009).

It is estimated that about 50 percent of European patents granted are validated only in three Member States, namely Germany, the United Kingdom and France. There are, however, great differences between different fields of technology. For example, the pharmaceutical industry usually has a pronounced need to validate its patents in a very extensive geographical area, while in many other fields, it is sufficient that the European patent has been validated in the company's main market areas. Although the translation costs have decreased with the London Agreement, this has not resulted in that patentees would validate their European patents in more countries than previously.

The London Agreement, which applies to translations only, has also not been able to solve other problems associated with the fragmentation of the European patent system. Since European patents form a bundle of national patents, this also means that once the European patent has been nationally implemented, for example:

- 1) European patents' transfers of ownership and patentee's name changes must be registered separately in each country's national patent offices;
- 2) There is a separate annual maintenance fee payable for each country in which the European patent has been implemented, and;
- 3) Actions against European patents are dealt with in each state's courts separately and with effect in that country alone.

Although the grounds for revocation of European patents have been harmonised and exhaustively listed in Article 138 of the EPC Convention, revocation of European patents must be sought for separately in all the countries where the European patent has been validated.

2.2 Unitary patent

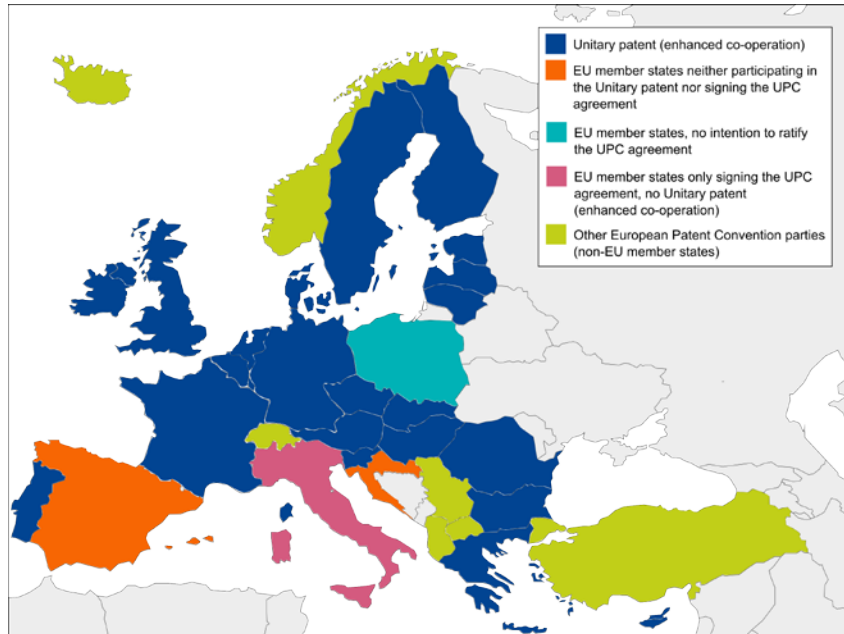
2.2.1 New alternative form of protection

The European patent with unitary effect ("unitary patent") refers to a new form of protection that will co-exist alongside traditional European patents and national patents within the European patent system. The unitary patent is primarily intended to be a regional cross-border alternative to the current nationally validated traditional European patent. Once the system enters into force it would be possible to obtain a geographically extensive and unitary protection for an invention with the unitary patent using a single registration that would be valid in all the participating member states.

The patentee has the option to register unitary protection for such European patents that the EPO has granted on or after the date when the UPC Agreement enters into force.²³ Unitary patents will not, however, become mandatory and they will not replace the traditional European patents. Once the system enters into force, the unitary patent will co-exist as a new alternative form of protection alongside traditional European and national patents, and in the future the patent applicant may decide whether they will enter their European patents into force as unitary patents or as traditional European patents. Since the geographical cover of the unitary patent will only extend to those EU Member States which are participating in the enhanced cooperation, the patentee can also separately validate their patents in those EPC Contracting States that are not participating in the enhanced cooperation (at the moment, for example, Spain, Italy, Poland and Croatia) and in non-EU countries (such as Norway, Iceland, Switzerland, Turkey, Serbia, and Albania). However, the same European patent cannot be in force in the same states simultaneously as a unitary patent and a traditional European patent, because this would be contrary to the prohibition on double patenting of the Unitary Patent Regulation.

²³ See e.g. Harhoff et al. (2009), Aho (2006), Määttä – Keinänen (2008) ja (2009) and Harhoff et al. (2009).

²⁴ Huhtala (2013), p. 31-32.

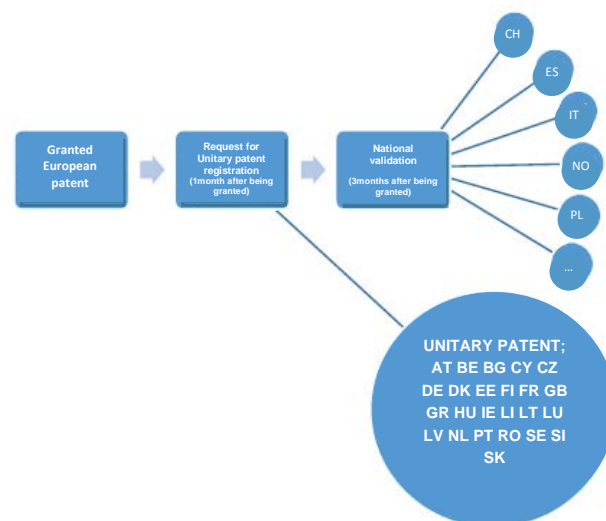


European patents granted before the system enters into force cannot retroactively be converted into unitary patents, but they remain as nationally validated traditional European patents in those countries where they have been entered into force by the patentee. Therefore, annual fees remain payable to national patent authorities for nationally validated classical European patents and for example, changes of ownership must be registered with the national patent authorities. In the future, legal proceedings relating to classical European patents will also fall under the jurisdiction of the new Unitary Patent Court. During the transitional period the patentee may, however, specifically request that the European patents granted to them be excluded ("opt-out") from the UPC's jurisdiction. This also applies to new European patent applications filed during the transitional period. European patent applications filed after the transition period will no longer be excluded from the UPC jurisdiction.

2.2.2 Application procedure persists - change to registration

The unitary patent system is built upon the current European patent system, which is regulated by the European Patent Convention (EPC), which is an international agreement independent of the EU. The Unitary patent is not based on any separate unitary patent application, but a new alternative way of entering a traditional European patent granted by EPO into force by registering it as a unitary patent. Indeed the European patent application process remains largely unchanged and the unitary patent for example should meet the patenting requirements specified in the EPC. During the application phase, the applicants do not yet need to decide whether to register their patent as unitary patents or not.

The application and registration process of the unitary patent differs from the traditional European patent application and registration process, mainly in that after a European patent has been granted, the applicant must file a request for registration of unitary effect within one month from the date when the decision of grant has been published in the Official European Patent Bulletin. The request must be filed with the EPO, and it must be in one of the official languages of European patent applications. As for Non-EU EPC agreement states (and for those EU Member States which are not participating in the enhanced cooperation) the patent may still be nationally validated within three months from the publication of the mention of the decision to grant the patent.



If no separate request for the registration of the patent as a unitary patent is submitted to the EPO, the applicant may at its own discretion, alternatively, validate the European patent in each country individually. Procedural regulations for the adoption and registration of a unitary patent are currently being prepared at a Select Committee under the authority of the EPO Administrative Council. In this context, it has been suggested that a request for unitary effect registration could be made as and when the applicant responds to the Communication under Rule 71(3).²⁵

It is not entirely clear what happens if the applicant does not meet the one month due date and how this relates to the traditional national validation of European patents, which must be carried out within three months after the grant of the patent was published in the Official Bulletin. The one-month period is relatively short, especially considering the fact that the patentee is at the same time required to provide a translation of the entire patent document to EPO (unitary patent language arrangements over the relevant transitional period, which are discussed in more detail in section 2.2.6).

Unitary protection can be registered for European patents that are granted after the patent regulations and the UPC Agreement have entered into force. This is a significant change compared to a proposal that arose during earlier negotiations, according to which the EU patent could only have been granted based on applications, which would have been filed after the regulation's entry into force, this is to say, much later than in the currently planned unitary patent system.

Therefore, the Unitary Patent Regulation only concerns the period after the European patent has been granted, and it includes, inter alia, the provisions relating to the unitary effect and the registration of the unitary effect, provisions on the unitary patent as an object of property, the tasks entrusted to the EPO, annual fees and principles for their allocation, and the provisions tying the entry into force of the regulation to the UPC agreement.

The EPO has been entrusted with the following new tasks relating to the unitary patent:

- 1) Receiving and examining requests for unitary effect, and registering the unitary effect
- 2) Setting up and maintaining a new "Register for unitary patent protection", containing entries on assignment, transfer, lapse, licensing, limitation or revocation of unitary patents
- 3) Publishing translations during the transitional period

- 4) Collecting annual fees for unitary patents and distributing part of the annual fees to the participating Member State
- 5) Administering a compensation scheme relating to the reimbursement of translation costs for certain applicants filing applications in an official language of the European Union other than English, French or German

Consequently the unitary patent differs from the other legal forms of intellectual property protection within the EU, such as the Community trade mark and design protection in the way that the administrative and governing body is the European Patent Office (EPO), which is an international organisation independent of the EU.

2.2.3 Prohibition on double patenting

One and the same European patent may not be registered both as a unitary patent and a traditional European patent at the same time in countries participating in the unitary patent system. This is due to a ban on double patenting regarding European patents, included in the unitary patent regulation. The unitary patent and the traditional European patent are therefore alternative forms of protection in the countries participating in the unitary patent system.

In order to prevent any overlap of patent protection between the unitary and traditional European patents, participating Member States shall ensure that the European patent, the unitary effect of which has been registered and the protection of which thus extends to all the participating member states, is not considered to have come into force on the date when the mention of the decision to grant was published in the official European patent bulletin.²⁶

It follows from the general principles of patent law as set out in article 64 (1) EPC, that the unitary patent protection should take effect retroactively in the participating Member States from the date when the mention of the grant of the European patent was published in the European Patent Bulletin. Also, the traditional European patent should enter into force retroactively as from the same date. Without the obligation imposed on the Member States to prevent double patenting, problems could arise, for example, from the fact that in some countries validating a European patent does not require any specific measures by the patentee, in which case the European patent would already be in force at a national level in certain countries at the time when the unitary patent is registered.

In spite of the ban on double patenting, an applicant may, however, file divisional patent applications before the European patent application is granted, provided that the necessary requirements are met. If this divisional application is granted, the patentee may register it as a unitary patent even if the basic patent had been nationally validated. Similarly, if the original application is registered as a unitary patent, the divisional patent application may be nationally validated.

In addition, it has been discussed whether to extend the prohibition on double patenting also to direct national applications, for which the patent laws of different countries differ to a significant extent.

²⁶ Article 4 (2) OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL REGULATION (EU) No 1257/2012 on the creation of unitary patent protection with the implementation of enhanced cooperation.

2.2.4 Territorial scope of the protection

As the unitary patent system enters into force, the patentee could register an extensive territorial scope of protection for their patents extending to all Member States participating in the unitary patent system.

The system will enter into force when at least 13 EU Member States (including at least the United Kingdom, France and Germany) have ratified the UPC Court Agreement and the Agreement has entered into force. However, not all countries will have ratified the Agreement at the same time and some countries, such as Italy, Spain, Poland and Croatia are likely to opt-out. All EU Member States which are also EPC members may join the system later.²⁷ As the ratification progresses and the EU and the EPC expand, the territorial scope of later unitary patents may be wider than the territorial scope of previously registered unitary patents.

The geographical coverage of the unitary patent protection is determined, according to the time of registration, and does not expand automatically, even if other Member States later join the UPC Agreement while the patent is still valid.²⁸ At most, the unitary patent covers all those countries participating in the enhanced cooperation that have ratified the UPC Patent Court Agreement. For this reason, when registering unitary patent protection for a patent, the patentee needs to assess the need for protection in those states which have not yet ratified the Patent Court Agreement, such as Spain and Poland, as well as non-EU EPC countries, such as Norway, Iceland, Switzerland and Turkey. If patent protection is needed in these countries as well, the patentee must validate the European Patent separately as a traditional European patent in the countries of interest. A European patent may therefore be in force as a European patent with unitary effect whilst also existing as a nationally validated traditional European patent, but not in the same states.

According to the unitary patent regulation, the key condition in place for unitary patent registration is that the European patent has been granted containing the same patent claims by all of the participating Member States. The wording of Article 3(1) of the Unitary patent regulation has been interpreted very strictly and, for example, the draft of procedural provisions for the registration of unitary patents by the Select Committee, formed under the authority and the Administrative Council of the European Patent Organisation, states that unitary patent is subject to two conditions, both of which must be met:

- 1) all participating member states must have the same claims , and
- 2) all participating member states should be designated in the European patent

A European patent application may only designate those countries that have acceded to the EPC Convention at the time the application is filed. Of the EU member states, Malta, which is expected to ratify the UPC Agreement in the spring 2014, only joined the EPC Agreement on 1 March 2007. Since it is possible to designate only those countries in a traditional European patent application which were EPC Member States when the application was filed, it has only been possible to file European patents designating Malta as of 1 March 2007. Similarly Croatia, became an EU Member States only on 1 July 2013, but has only been possible to designate in European patent applications filed as of 1 January 2008.

This relatively complex arrangement has caused a number of problems of interpretation and there has been a lot of discussion on the subject. Also the procedural requirements are still in preparation in the Select Committee. But because it is possible to designate in a traditional European patent application only those countries which were EPC Member States at the time of filing of the application, and Malta, which is expected to ratify the UPC Agreement in the spring of 2014 could not be listed in European patent applications submitted before 1 March 2007, it currently appears that the unitary patent registration requirements will not be met for European patent applications filed before 1 March 2007.

²⁷ In order for the unitary patent to apply to a particular state, the state must be: (1) an EPC Agreement State, (2) an EU Member State, (3) taking part in the enhanced cooperation for unitary patents, and (4) an UPC Member.

²⁸ Article 18 (2) OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL REGULATION (EU) No 1257/2012 of the creation of unitary patent protection with the implementation of enhanced cooperation.

²⁹ SC/22/13, Draft Rules Relating to Unitary Patent Protection revised version of Rules 1 to 11 of SC/16/13, 22/11/2013.

Another problem is formed by those European patent applications for which the applicant, prior to the patent being granted, withdraws designated countries³⁰ or provides separate claims for certain countries. In these cases a European patent may not be registered as a unitary patents either.

2.2.5 The unitary effect of the unitary patent

The unitary character of a unitary patent is considered to be its most important characteristics, i.e. the fact that the unitary patent provides uniform protection and that its effects are the same in all the participating Member States. Unlike the currently used traditional European patents, the unitary patent offers unitary protection in all the participating states.³¹

The scope and effect of the unitary patent protection would therefore be the same in all those States involved. This means that:

- 1) The unitary patent claims must be the same for all participating member states;
- 2) The limitation, withdrawal, expiration and revocation of unitary patents would take place with a coherent and uniform effect in all the countries participating in the system, the patent and the unitary effect should be regarded deemed not to have arisen in cases in which the European patent has been revoked or declared invalid or limited;
- 3) The patentees would have to pay a single annual fee for European patents with unitary effect, payable to the EPO;
- 4) The unitary patent ownership transfer and registration would take place with coherent and uniform effect in all participating Member States;
- 5) The licenses relating to unitary patents may be granted separately for individual Member States.

As an object of property, a unitary patent would be treated in its entirety for all the participating Member States as a national patent of the participating Member State where the applicant has its residence, principal place of business or place of business at the time of filing the application. If none of the applicants have such a residence, principal place of business or place of business in the Member States participating in the enhanced cooperation, the unitary patent as a whole should be treated as a German patent. This would be the case, for example, for non-EU patentees, who may not have a place of business in Europe.

The unitary protection brings certain advantages to the patentee in comparison with traditional European patents. Patent protection is completely uniform, making it easier to manage the administrative process. Both the unitary patent renewal fees and the transfer of ownership can be dealt with in a single request. In particular, it will be easier to interpret and determine the scope of protection afforded by a unitary patent in all the participating member states, since the scope of protection of a unitary patent protection is the same in all the participating member states. At the same time, however, the patentee loses a certain degree of flexibility that nationally validated European patents have. For example, the annual fees cannot be adjusted by removing countries from the scope of protection. In addition, unitary patent ownership cannot be divided on a country-by-country basis between various patentees.

³⁰ It is estimated that about 6-8 European patent applications are such in which the applicant withdraws designated countries for an unknown reason before the patent is granted.

³¹ SOU 2013:48, p 75–79.

In accordance with the EU Court of Justice practice, the principle of exhaustion of rights should also apply to unitary patents. As a result, a unitary patent should not cover such acts relating to products protected by a unitary patent that are carried out in the participating Member States after the patentee has placed the products on the market.

Unitary patents shall enter into force in the participating Member States on the date the European Patent Office publishes the decision to grant a European patent in the European Patent Bulletin.

2.2.6 Translation arrangement and transitional provisions relating to it

The language issue had long been one of the major obstacles to the European patent system reform. The unitary patent system's translation arrangement is based on the so-called three-language model, which is complemented by machine translations of patents in the EU's national languages.

The authentic language of a unitary patent is the language of the application proceedings at the EPO, i.e. English, German or French. However, in accordance with current practice, a translation of the patent claims must also be submitted in the other two official EPO languages prior to the patent being granted when the patent applicant responds to the communication under Rule 71(3) EPC, and this practice will not be changed.

The unitary patent translation arrangement includes a transitional period, the length of which is at least 6 years and at most 12 years. The final length of the transitional period relating to the translation arrangement depends on the quality and development of machine translations. During the transitional period, the patentee must submit a translation to the EPO of the granted European Patent in a language other than the language of the patent when requesting registration of unitary effect for the patent. If the language of the application proceedings was French or German, the translation must be in English. If the language of the proceedings is English (about 80 per cent of European patent applications), the translation can be made in any of the official languages of the Member States, which is one of the official EU languages.

In other words, the patentee can reasonably freely choose the language of the translation. It is ultimately a business decision in which language the translation will be filed. It is estimated that a majority of the required translations during this transitional period would be either in French or German, because the claims must be translated into French and German in any case if the application is in English, or, alternatively, in Italian or Spanish, if the patent is to be validated as a traditional European patent in these countries. On the other hand, it could also be feasible that the translations could be provided, for example, in Finnish, if the applicant has made a priority application in Finnish. However, during the transitional period, the registered unitary patent would always exist in English. The translation provided by the patentee during the transitional period is not authentic.

After the transitional period, the registration of unitary patents will not require additional translations. The EPO is currently developing machine translations in the EPO official languages and the official languages of the EPC Member States in partnership with Google. The patentee's competitor could, therefore, have to rely on machine translations, or translate the patent themselves when assessing whether they infringe a patent, the language of which is French or German. The quality of machine translations varies, however. For example, machine translations from English, German or French into Finnish or Swedish are still not of very high quality, when compared to test translations, from English to German.

In potential court proceedings concerning unitary patents, the patentee will have to submit a complete translation of the entire patent on the alleged infringer's request in either the official language of the participating Member State in which the alleged infringement had occurred, or in the official language of the Member State in which the alleged infringer is domiciled. In addition, the patentee shall submit to the court a complete translation in the language of the court proceedings on request by the Court. The patentee is responsible for the translation costs. The translation may not be a machine translation.

³² E.g. see Fröhlinger (2013).

2.2.7 Provisional protection and translation requirements

European patent applications submitted to the EPO have the same legal effect as national patent applications in those designated Member States for which the European patent has been applied for. From the publication of European patent application, a so-called provisional protection commences. If the application results in a patent, it will give the patentee the right to prevent others from exploiting the patented invention. Provisional protection also means that in addition to an injunction, the patentee is also entitled to reasonable remuneration, if any party has commercially exploited the invention after the publication of the application to the extent that the published claims corresponds to the granted claims.

EPC Member States may, however, limit this provisional protection provided by a European patent application to be the same as what the national laws provide for an application published nationally. Indeed many countries have national legislation that states that a precondition for enjoying provisional protection for a European patent application, the patent applicant shall provide a translation of the patent claims in the language of the national patent authority.³³ For example, Finland and Sweden require that the patent applicant files a translation of the claims in Finnish³⁴ or in Swedish with the national patent authority, which shall make the translation available to the public and make announcement of it without delay. Under the Finnish patent law, the European patent's provisional protection only extends to patent requirements published as detailed above, as well as to patent requirements of a granted patent. If someone, after the above-mentioned announcement has been published, commercial use of the invention, for which protection has been sought by the European patent application, patent infringement provisions apply if the application results in a patent in Finland.

In Sweden it has been questioned whether it makes sense to maintain more stringent requirements for translation with regards to the provisional protection than what is required for the unitary patent.³⁵ The translation arrangement for unitary patents only applies to unitary patents and not European patent applications. Therefore, if a patent applicant has a need for such provisional protection during the application period, the patentee must also continue to provide translations of the published claims of the European patent application to national patent offices. However, national legislation varies from country to country. As the quality of machine translations varies considerably, such regulations may, still be justified, especially when the language of the European patent is German and French.

2.3 Differences between traditional European patents and unitary patents

2.3.1 Registration of transfers

With regards to traditional European patents, the EPO's competence ends once the patent is granted. At the same time the jurisdiction of European patents is transferred to those national agencies that maintain a register of nationally validated European patents.

As a consequence, name changes and transfers of ownership of nationally validated European patents must be registered in each country separately after the patent has been granted. Since this will incur significant additional costs, patentees often fail to register such changes. Consequently, the data regarding nationally validated European patents in the patent registers of national patent offices is not always up-to-date and may contain outdated information. This sometimes causes problems. For example, after the patent has been granted, the patentee may request for centralised limitation or revocation of the European patent in the EPO, in which case the EPO's jurisdiction is temporarily restored for the limitation or revocation request to be processed. If the patentee in the European patent register is no longer the rightful holder, the patent's new holder must prove that they are the patent's rightful holder, either by submitting an extract from the register of the national office or by submitting another document which proves that they are the patent's rightful owner.

³³ E.g. see National law relating to the EPC, 16th Edition (2013).

³⁴ In Finland the applications may be submitted in Swedish, if the applicant's mother tongue is Swedish.

³⁵ SOU 2013:48, p. 75–79.

Similar problems may also arise if the new holder of the patent would like to exclude a granted nationally validated European patent outside the UPC jurisdiction (opt-out), and the patentee listed in the register ceased to exist, for example, when merged with another company. As only the patentee can submit such an "opt-out" request, it is expected that the new patentee must be prepared to provide the UPC Registry with documents showing they are the European patent's rightful owner.³⁶

With the unitary patents, changes of name and ownership, however, can be registered centrally at the EPO, in which case it is expected that the information in the unitary patent register will be kept more up-to-date.

2.3.2 Prior national rights

The invention described in the patent application must be new in relation to what has become public before the patent application was filed. In most countries, however, a patent application remains secret from date of filing to the publication date (18 months from the priority date). Such prior, secret applications that are later published are nevertheless considered to be such prior art that is taken into account when examining the novelty of the invention on the same grounds as publications that have been made available to the public before the application filing date. However, such publications are not taken into account in the assessment of inventive step.

When assessing the novelty of the invention disclosed in the patent application, it is therefore important to consider applications filed prior to the application filing date (priority date) that were not yet public on the filing date (priority date), but become public on the application date or thereafter.

In the European patent application's novelty and patentability examination the EPO only considers those prior post-published applications that are European patent applications. The EPO on the other hand does not take into account previously filed but later published national applications. Therefore questions related to prior national rights do not arise in the examination of novelty at the EPO and the search and examination report.

When such a prior national right is found and the applicant is aware of it, a European patent applicant may file separate limited patent claims to the EPO already during the application stage and the claims will only be valid for the designated Contracting State in question.³⁷ However, the applicant must inform the EPO of the existence of such prior national rights. Alternatively, before the European Patent is granted, the applicant may withdraw the country of the national prior right from the designated states of the European patent application.

It is estimated that about 6-8 European patent applications are such where the designated countries are withdrawn prior to grant of a patent. It is, however, possible that the patentee is not aware of these prior national rights before a patent is granted (unless the applicant himself carries out a preliminary search). Traditional European patents cannot be invalidated during opposition proceedings based on such prior national rights. In contrast, in a national revocation court proceeding such prior national rights may be used as a basis for revocation, only in the country of the prior national right in question. In other states, the granted European patent remains valid.

In revocation proceedings held at national courts regarding traditional European patents the patentee may submit restricted patent claims, which apply only to the State in question. Before the revocation proceedings, the patentee may also voluntarily limit the patent claims via national limitation proceedings.

³⁶ E.g. see <http://ipkitten.blogspot.jp/2013/11/the-upc-opt-out-dangers-lessons-from.html>.

³⁷ E.g. see EPO Guidelines for Examination G-IV, 6.

Therefore, traditional European patents cannot be revoked centrally in all Member States based on such prior national rights. Because of the unitary nature of the unitary patent, it follows that the unitary patent can be revoked only in its entirety, that is, for all Member States, and also based on such prior national rights. If a patentee has chosen the unitary patent for a member state included in the unitary patent system, it is not possible to file alternative sets of limited claims for that member state, because the claims must be the same for all countries. If the applicant wishes to register its granted European patent as a unitary patent, the applicant cannot withdraw individual designated countries from the European patent application, as in such a case it is not possible to register unitary protection for the European patent.

Accordingly, unitary patents can to some extent be regarded as more vulnerable than the traditional European patent applications, because the unitary patent may be revoked under the centralised procedure in its entirety on the basis of such prior national rights, while the traditional European patent may be revoked only in the country having the prior national rights in question.

In the special commission (Select Committee), established under the EPO Administrative Council for the adoption of unitary patents, there has been discussions on whether the patentee should be allowed to convert the unitary patent to a bundle of national patents in accordance with the traditional European patent system in a situation where the unitary patent is revoked based on prior national rights, even if this would happen years after the patent was granted.

In this context it has been suggested, that this would not cause particular harm to third parties, since there would be no real change with regard to the current situation. Patents, which have previously been in force as unitary patents, would simply be converted into patents that are validated as national European patents. On the other hand, such an arrangement would eliminate the opportunity for third parties to revoke unitary patents in a centralised manner in all participating Member States, based on such prior national rights. This process would correspond to the present situation with nationally validated European patents. Such an arrangement, in which the unitary patent could be transformed into a bundle of national patents in the European patent system, would resemble to some extent the Community trade mark conversion process, in which the Community trade mark can be converted into a national trade mark, if the Community trade mark has been revoked, for example, due to an earlier registration in a particular Member State. Instead, in the regulation concerning the Community design regulation an opposite solution has been reached, and conversion into national design protection applications is not possible.

The Select Committee's work is still in progress, and at this stage it is unknown, what decision the committee will ultimately reach.

2.3.3 Patent limitation and surrender

The European patentee may also limit the scope of the European patent centrally by submitting a limitation request to the EPO at any time after the grant of the European patent. A limitation request for European patents is valid in all the Member States in which the granted patent was valid after the publication in the European Patent Bulletin. If necessary, the patentee may submit a separate set of claims for different countries. In addition, the scope of protection of nationally validated traditional European patent may be limited in national limitation proceedings, in which case the restrictions only apply to the country in which the European patent has been validated and for which the restriction request was made. After the unitary patent system would enter into force, such centralised limitation request filed at the EPO would also apply to unitary patents.

The unitary nature of the unitary patent, however, leads to a scenario where it is not possible to limit the claims for an individual country taking part in the enhanced cooperation.

It is also noteworthy that the unitary patent regulation does not provide for a separate limitation procedure for unitary patents, in which EPO would have been granted the power to examine patent claims made for unitary patents only.³⁸ Instead, the request for limitation would always be directed to European patents as a whole, extending also to European patents granted outside the unitary patent system. Unitary patent claims may however be limited in connection with a revocation action at the UPC.

A unitary patentee can also make a declaration of surrender of the a unitary patent in which the patentee surrenders the unitary patent as a whole or possibly also surrenders individual claims (partial surrender). The EPO does not examine the validity of the surrender.

2.4 Opposition procedure

After the European patent is granted, a nine-month opposition period starts, during which revocation of a European patent can be applied for through the administrative routes of the EPO without a trial.

The opposition is a letter with which third parties seek to revoke an already granted European patent in whole or in part. The opposition must be made in writing, it must be reasoned and an official opposition fee must be paid, which is equal to EUR 745 as of 04.01.2014. Additionally, an appeal fee must be paid, which is EUR 1,240 if the decision of the opposition division is appealed.

The EPO has opposition divisions specialised in opposition proceedings. Following the opposition the patent is maintained unchanged or it will be invalidated in part or in full. The Opposition Division's decision can be appealed to the Board of Appeal of the EPO, but the decision of the Boards of Appeal is final and cannot be appealed.

If an opposition is filed and the European patent is revoked in whole or in part, it applies to all the countries where the European patent has been brought into force, that is, up to 38 EPC Member countries as well as two of its associate states. All other revocation procedures targeting European patents need to be carried out country by country in the countries where the patent has entered into force. Once the UPC Agreement enters into force, unitary patent (as well as the traditional European patent in so far as it relates to the UPC Member States) may be annulled in the UPC court.

The decision of the UPC to revoke a patent only applies to unitary patents or traditional European patents validated in UPC Member States. The decision of the UPC court does not extend to such EPC member states that do not participate in the unitary patent system. For this reason, the parallel opposition proceedings should continue in the EPO, even if the UPC had revoked the unitary patent.

Another difference between the EPO's opposition proceedings and UPC's revocation proceedings is the fact that the EPO may not take into account prior national rights and thus invalidate a patent centrally based on prior national rights.

³⁸ E.g. see Article 10. SC/22/13, Draft Rules relating to Unitary Patent Protection revised version of Rules 1 to 11 of SC/16/13, 22.11.2013.

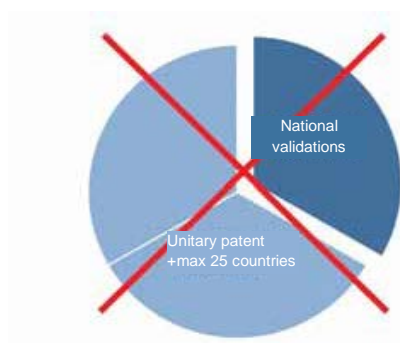


Image A.

It is possible to fully invalidate the European Patent during opposition procedure.



Image B.

A revocation action in the UPC court relates to the unitary patents or European patents validated in UPC countries, but not other countries where European patents have been validated.

It is also noteworthy that in the EPO the Opposition Divisions and the Boards of Appeal may not for example request the EU Court of Justice to give a preliminary ruling in matters relating to the biotechnology directive, unlike the UPC court.

It is estimated that around 5.5-6 per cent of the European patents granted by EPO will currently be subject to opposition.³⁹ Of these oppositions filed between 1980-2005 the patent was revoked in 33 percent of the cases, in 33 percent of cases the patent was kept in force in an amended form and 33 per cent of cases the opposition was rejected. It is estimated that opposition proceedings are more likely in the pharmaceutical industry than, in the field of organic chemistry or other fields of technology.⁴⁰

A European patent administrative opposition procedure is considered to be quite a cost-effective alternative compared to revocation litigation. The average cost of an opposition is estimated to be in the range from 6.000 to 50.000 euros, while for national revocation proceedings the cost is often ten times or more higher in comparison with the above-mentioned figures.⁴¹ As a rule, each party bears its own costs of opposition proceedings. Only in very exceptional circumstances, for example where one of the parties has misused the process and in doing so caused the harm to the other party, the party that has acted improperly, a party is sometimes ordered to pay compensation to the other party for the costs incurred for this.

Even if the opposition procedure is sometimes considered to be a too slow process, it is speculated that the popularity of opposition proceedings would increase to some extent when the unitary patent system has entered into force, especially until the UPC decision-making process is well-established. This is partly due to the fact that the opposition procedure is considered to be a cost-effective, predictable and legally certain system. After surviving opposition proceedings, a patent is often considered to be rather strong.

³⁹ E.g. see Mejer et al. (2009); Kuilen, van de (2013).

⁴⁰ E.g. see Kuilen, van de (2013); Mejer et al. (2009).

⁴¹ Thomas et al. (2013); Kuilen, van de (2013).

2.5 Supplementary protection certificate applications and certificates granted

In terms of applications for supplementary protection certificates for medicinal products there will be no changes (at least not at this stage). Supplementary protection certificate applications for supplementary protection for medicinal products will continue to be made separately to national authorities (unless the supplementary protection certificates regulation is changed) and they will not be covered by the UPC Agreement.

Granted supplementary protection certificates, which are based on traditional European patents or unitary patents, will fall under the UPC's jurisdiction. Those supplementary protection certificates, the basic patents of which are based on European patent applications may optionally be opted out from the UPC's jurisdiction during transitional period. Supplementary protection certificates granted on the basis of national patents do not, however, fall under UPC's jurisdiction.

2.6 Alternative forms of unitary patents and European patents protection

2.6.1 National patents

After the transitional period, companies must weigh the benefits of extensive injunctions under the UPC against the risks arising from potential revocation.

Should the patent applicants still after the transitional period wish to avoid the UPC, the only option is to start using national patents in the UPC Member States.

Patent applicants must note that some of the EPC Member States have closed the so-called direct "PCT route", i.e. the possibility to apply for a national patent based on a PCT application. In these countries that have closed the PCT route, such as the Netherlands, France, Belgium, Ireland and Italy, protection based on a PCT application may only be sought using the EPC system. In this case, the granted patent would fall under the UPC's jurisdiction. This means that should the applicants wish to avoid the UPC, they need to file national applications directly to national authorities no later than twelve (12) months from the priority date without using the PCT system to the extent that they wish to obtain patent protection in these countries having closed the PCT-route.

Applications for direct national patents or a combination of the PCT system and national phase applications has traditionally been considered as an expensive system. For example, Määttä and Keinänen's study (2008) refers to "the three country rule" and it states that "when you wish to enter your patent into force in at least three countries, the European patent is a more appropriate option than direct national patent applications".⁴²

On the other hand the national patent system has also been developing in a more cost-effective direction. From 11.01.2011 it has been possible to file national applications in English in Finland and only provide a Finnish translation of the claims. Similar projects have been in progress at least in Denmark and Sweden. In Germany attempts are made to make national applications more attractive by allowing the filing of an application in English or in French.⁴³

In addition, the so-called Patent Prosecution Highway System (PPH system), in which Finland has been involved for a number of years, has provided patent applicants with new patenting alternatives and routes. A core idea is that patent applicants who have received an approval for their patent claim in one office could request for an accelerated processing of a corresponding patent application in another office. The intention is that when examining applications belonging to the same patent family, the patent authorities make use of the previous national or international search results to the extent that it is possible.

EPC COUNTRIES THAT HAVE CLOSED THE PCT ROUTE

- Netherlands
- Belgium
- Ireland
- Italy
- Greece
- Cyprus
- Latvia
- Malta
- Monaco
- France
- Slovenia

⁴² Määttä-Keinänen (2008), p. 66, with reference to the so-called. "three-country rule".

⁴³ Hoffmann Eitle (2014), p. 13.

The system potentially allows applicants a fast-track treatment on the condition that another patent authority has already found the application's core claims acceptable. Until now, the PPH agreements have been largely based on bilateral agreements between agencies. Currently the patent offices of 17 countries have created an integrated system of Global-PPH (GPPH), which utilises both national and PCT phase results.

Global- PPH agreement entered into force on 06.01.2014, and currently at least Finnish, the US, Japanese, Russian, South Korean, UK, Canadian, Australian, Spanish, Portuguese, Israeli, Hungarian, Swedish, Danish, Norwegian and Icelandic patent offices are participating, as well as the Nordic patent Institute (NPI). In addition, the Finnish Patent Office has entered into PPH agreements with patent offices of countries such as China, Germany and Austria and the Czech Republic.

The system speeds up the patenting process and may be a convenient way for a patent applicant to enter a patent into force rapidly with the same claims in other countries.⁴⁴

The EPO the other hand, only has PPH agreements with the US, Japanese, Chinese and Korean offices.

Obtaining the protection with direct national applications is, however, likely to be more labour-intensive and more costly than with the existing European patents with which the applicant achieves a uniform protection with a single application in several European countries.

It has been speculated that the popularity of patents would increase somewhat with the unitary patent.

2.6.2 Utility models

In many UPC countries, it is possible to protect an invention with patents and also with utility models. Compared to patents the utility model is less expensive, but its term of protection is shorter than that of a patent. A utility model is usually in force for a maximum of 10 years from the application filing date.

A utility model differs from a patent particularly in that it will be registered immediately, without any technical examination, while prosecution of a patent application typically takes several years. Utility model protection may be obtained more easily than an actual patent, since the utility model protection requirements for inventive step are less strict than they are for patents. In Finland, the required difference in the level of inventiveness is presented in the law in such a way that a patented invention requires a "substantial difference" over existing technology, whereas the invention to be protected by the utility model only requires "clear difference" over existing technology.

EU MEMBER STATES IN WHICH UTILITY MODELS CAN BE REGISTERED

- Finland
- Denmark
- Estonia
- Germany
- France
- Austria
- Spain
- Portugal
- Ireland
- Greece
- Czech
- Slovakia
- Slovenia
- Poland

In some countries, utility models are forms of protection complementary to patents whereas in other countries it is an alternative form of protection, which is valid for ten years after filing. Utility model is often characterised as a "petty patent".

Utility model protection is considered to be the type of protection which is particularly well-suited for small and medium-sized enterprises. The utility model could provide an alternative to both small and large companies, once the unitary patent system enters into force.

⁴⁴ Further information, e.g. www.prh.fi/pph and www.jpo.go.jp/cgi/linke.cgi?url=/ppph-portal/index.htm.

2.7 Assessment of the changing European patent system

The European patent system has been criticized for the system's complexity, fragmented nature and high patenting costs.⁴⁵ The unitary patent has been justified especially by cost savings.

Since patenting processes of the unitary patent and the European patent do not differ from each other, no specific cost savings are made at the application stage. Thus, the potential cost savings would mainly arise after the grant of the patent. In this context the Commission has referred to the reduction of translation costs in particular. Based on assessments commissioned by the Commission, the mere translation costs would be reduced from about EUR 20,000 to about EUR 2,400.

However, in this context it is important to remember that the translation costs in Europe have already been cut with the London Agreement, which 20 Member States had joined by November 2013, of which 13 Member States would potentially be joining the unitary patent system.

As for translations, most of the savings would therefore arise in a situation where almost all countries joined the unitary patent system, or at least those countries, such as Spain, Italy and Poland, which have not yet acceded to the London Agreement, and which require for the applicant to provide a translation of the entire patent. In addition, all of the countries are major market areas in the EU. (In terms of GDP, Italy and Spain are the fourth and fifth largest markets.)

On the other hand, a fact influencing the upward trend of translation costs is that during the transitional period relating to translation arrangements the patentee must submit a translation of the granted European patent to EPO in some other language than the processing language when submitting a request for unitary protection registration. If the patent's procedural language is French or German, the translation must be in English. If the language is English, the translation may be in any of the official languages of the Member States, which is an official EU language.

This may increase the translation costs, especially in industries where the patent publications may be hundreds of pages in length, especially if the number of patent claims is small in relation to the total length of the patent publication. A translation of the patent claims must also be filed in the current system, so the additional cost is generated with the translation of the description.

In addition, it should be noted that for the unitary patent infringement proceedings the patentee must, at the request and choice of the alleged infringer, provide a complete translation of the unitary patent in either the official language of the Member State in which the alleged infringement occurred or in which the alleged infringer is domiciled. A complete translation of the patent into the language of the Court shall be provided for the court if they so request. The patentee is responsible for the translation costs. The translation may not be a machine translation.

In terms of translations, most cost savings would be generated if all countries joined the unitary patent system. In contrast, if only 13 countries joined the system, and all those countries were members of the London Agreement, the translation costs would be likely to increase, at least for a transitional period, in which case the patentee must submit a complete translation of the entire patent.

Previous Finnish and European studies suggest that the costs of translation are ultimately not as crucial as it has been suggested. This is already reflected in a study conducted by Määttä and Keinänen, in which company respondents emphasised that translation and other patenting costs would not necessarily rise to such a significant role as other matters relating to financial aspects.⁴⁶

⁴⁵ Various assessments on the matter have been presented, see, e.g. the Commission staff working paper. Impact Assessment. 13.4.2011. SEC(2011) 482 final.

⁴⁶ Määttä–Keinänen (2008), p. 48–49.

This is demonstrated by the very fact that the number of European patent validations has not increased significantly, although the ratification of the London Agreement has progressed.

It is noteworthy that based on the impact assessment commissioned by the Commission around 50 per cent of granted European patents will be validated in only three Member States, namely in Germany, the United Kingdom and France. Based on EPO statistics, traditional European patents are typically validated in 2-3 countries. Those one thousand patents, which according to the Commission are validated in all EU Member States are at the other end of the spectrum.

Already in the light of these statistics, it is clear that the sufficient territorial scope of protection for patent in the EU strongly depends on the company's business area. In addition, there may be also technology-specific differences within the same industry. In most industries, the extension of patent protection to the key market areas is therefore sufficient, and the extension of the patent to all European countries is not necessary for business purposes. The most common exception to the above is the pharmaceutical industry, for which it is essential that the patent is valid in all countries.

Thus, the annual fees paid for the unitary patent, the level of which has not yet been decided seems to be emerging as a decisive factor. In order for the unitary patent to be competitive with respect to the traditional European patent, it is estimated that the unitary patent annual fees should be match annual fees paid for a European patent that has been validated in 2 – 3 large EU countries.

For example, Straathof and van Veldhuizen (2010) have estimated that the extensive territorial scope of protection provided by the unitary patent would make it easier for businesses to sell the patent portfolios, license their patents and access to venture funding as well as expand into new markets.⁴⁷ Thus, companies might be willing to pay a little more for a wider territorial scope of protection.

In order to promote and facilitate the commercial exploitation of an invention protected by a unitary patent, the patentee should get a discount on the official annual fees, if the patentee is willing to grant licenses for the patent for a reasonable compensation. It remains to be seen, however, how popular such a system becomes.

The patentee should probably consider protecting the invention by a unitary patent, if the company:

- 1) needs a more extensive territorial scope of protection;
- 2) wishes patent litigation to be dealt with centrally in the UPC;
- 3) requires protection at the EU's external borders (cf. the EU Customs Regulation).

It is likely that business strategies will also vary between companies, as well as within companies operating in various fields of technology. It is thus likely that companies will start using the unitary patent system to some extent. At least during the transitional period companies will also be using traditional European patents, if it is enough to validate the patent in a few countries. These patents could be removed from the UPC's jurisdiction, if necessary. After the transitional period, it is likely that some companies will also use national patents, especially in situations where a company only needs protection in specific important countries, or where the company does not want patent disputes to be litigated centrally by the UPC.

⁴⁷ Straathof-van Veldhuizen (2010).

CHECKLIST

1. *A traditional European patent is validated in each country individually after the patent is granted. This system will remain in effect in the future.*
2. *Unitary patents will co-exist with the traditional European patent and national patents. The Unitary patent and the European patent application process is the same. The current centralised administrative opposition procedure will remain in place.*
3. *A unitary patent granted based on a European patent can be validated in up to 24 EU Member States with a single registration. (Italy, Poland, Spain and Croatia are not included in the system)*
4. *Unitary Patents and traditional nationally validated European patents differ in the uniform protection afforded by a unitary patent: the interpretation of the scope of protection, invalidity and ownership is the same.*

3. PATENTING IN UPC COUNTRIES AND COMPANY SCENARIOS

3.1 General information on patenting and patenting strategies

Traditionally, patents have been applied for to protect innovations resulting from R&D from being copied. This is still the strongest and the most common reason for seeking patent protection. There are, however, plenty of other reasons for applying for a patent than their use as an active right to prohibit others. Corporate patenting strategies have evolved in recent years, and patents are increasingly used to support the company's business activities. Particularly small and medium-sized companies have begun to use patents, more extensively than before – large companies have already in the past known how to take advantage of a wide range of patents.

Increasingly, the value of a company is based purely on the value of its intangible assets. One important part of the company's market value is the patents held by the company, especially if a company originates from one invention alone. In recent times, a number of technology-focused start-up companies have been formed, whose entire business is based on strong patenting strategy.

When we talk about commercialisation of inventions, it often refers to the exploitation of the innovation's technical solution in the company's own business, in which case the invention or its exploitation is part of the product sold by the company or service provided by it.

Commercialisation of inventions is also possible through licensing, but selling the invention and any patents related to the innovation can as well be considered as commercialisation. Basically, selling or licensing of the invention is significantly easier, when it is patented.

Patents and patent applications hold market value even if they aren't actively used as rights to prohibit others or for licensing. Patents or patent applications can, for example, be used to measure the company's innovativeness, and this information can also be used in assessing the company's future economic success. This could have a substantial effect on the acquisition price of the company or on its ability to obtain external funding.

The manner, in which the company intends to exploit its patents, has a material impact on the patenting strategy chosen. In principle, it could be assumed that a wider territorial scope of protection would always be advantageous to the patentee, or that at least it would not cause any harm to the patentee. In practice, the question of the unitary patent is not so straightforward. With regards to unitary patents, it is not possible to conclude that a wider territorial scope of protection would automatically be an advantage to the patentee, but rather it is necessary to carry out a wider assessment of the advantages/disadvantages.

It is also common knowledge that the sufficient territorial scope of protection in Europe relevant to the company's business strongly depends on the company's area of business. In addition, there may also be technology-specific differences within the industry.

A PATENT IS A RIGHT TO PROHIBIT OTHERS

A patent granted to a company does not give the company the right to use the invention.

A patent by nature is a right to prohibit others. In practice a granted patent does not give the patentee the rights for (commercial) exploitation of their invention.

Other patentees may have valid prior patents, on which the later filed patent is dependent. For example, more complex products are often associated with up to thousands of patented inventions.

In some cases, the patentee must obtain an authorisation from the authorities to use the patented invention. For example, a marketing authorisation for medicinal products is required.

The patentee has the right to prohibit others from professional exploitation of their patented invention. Professional exploitation includes, inter alia, manufacture, sale, use and import of the patented product or use of the patented process.

Good and strong patents may prevent competitors from entering the market (use of the injunction), or incur costs for their competitors (licensing).

In most industries, obtaining patent protection in key market areas is sufficient, and the extension of protection to all European countries is not necessary for business purposes. Often, competitors will be "blocked" from the entire European market, if the technology is protected, for example, in Germany, France and the United Kingdom. Often, the market share of a few important countries is so extensive that it is not worth for a competing company to build their business outside these regions. In practice, patent protection covering a few countries is sufficient in providing adequate protection for the technology in the whole of Europe. The most common exception to this is the pharmaceutical industry, for whose business it is essential that the patent is valid in all countries. In particular, the parallel trade in medicines in the EU increases the need to obtain a protection covering the entire region. Thus, it is not surprising that most of the traditional European patents validated in Finland are specifically for the pharmaceutical and chemical industries.

While the broad and unitary patent protection could enhance the business of export companies, it also weakens the financial position of firms in the domestic market. The more patents are in force in the company's domestic market, the greater the risk of patent infringement is for the company. When the freedom to operate of a company is significantly restricted, the company's business opportunities may be substantially reduced.

3.2 Case scenarios

3.2.1 Case 1 (opt-out during transition period/national patents after the transitional period)

A fairly large Finnish pharmaceutical company L holds several European patents valid in all European countries.

The pharmaceutical industry clearly has a greater need than other industries to protect their inventions in all the countries where their products are sold. Due to parallel trade, the pharmaceutical company cannot dominate a market the size of the EU with patent protection only covering a few countries. Despite this, the pharmaceutical industry is most likely not to be immediately excited about the unitary patent or the UPC. The risk of revocation of the unitary patent and the loss of protection with a single court decision is likely to lead to a situation in which the company, as well as the whole pharmaceutical industry to a large extent excludes ("opt-out") most of their traditional European patents from the jurisdiction of the UPC.

However, company L thoroughly examines its patent portfolio and decides to leave a number of their European patents to be tested under UPC's jurisdiction, but not the most important "jewel in the crown" -type European patents, but rather the less important so called "follow-on" -patents. The company has already successfully defended in opposition proceedings at the EPO European patents relating to second medical use. Company L estimates that the patents are not very easily revoked, and thus leaves them to be tested under UPC jurisdiction.

After the transitional period, a company representing the pharmaceutical industry must weigh the advantages offered by UPC of extensive injunctions and disadvantages of the extensive possibilities to revoke patents. If the pharmaceutical companies want to avoid the jurisdiction of the UPC also after the transitional period, the only option is to start using national patents in the UPC Member States.

The company L must note, however, that some of the EPC Contracting states have closed the so-called direct "PCT route", i.e. the possibility to apply for a national patent based on PCT application. In these countries that closed down the PCT route, such as the Netherlands, France and Belgium, it is possible to apply for protection based on a PCT application only through utilising the EPC system. In this case, the granted patent would fall under the UPC's jurisdiction, and in order to avoid this, the company would need to file national applications no later than twelve (12) months after the priority date directly to national patent offices without the use of the PCT system.

In the future, company L should consider its patenting strategy in good time before filing a priority application so that the above-mentioned things could be taken into consideration.

Since the pharmaceutical companies tend to protect their patents very extensively in Europe, the transition to national patents after the transitional period would mean that the company's patenting costs are likely to increase.

Finland's decision over the ratification of the UPC Agreement will not affect the pharmaceutical company's patenting strategy. Patenting strategy decisions are based on the UPC's jurisdiction and these challenges should be taken into account in the strategy regardless of whether Finland takes part in the UPC system or not.

There will be no changes for applications for supplementary protection certificates for medicines either (at least not at this stage). Supplementary protection certificate applications will need to be filed separately to the national offices also in the future (unless the supplementary protection certificate regulation is amended) and the UPC Agreement will not be applied to them. Granted supplementary protection certificates, the basic patents of which are traditional European patents or unitary patents, on the contrary fall under the UPC's jurisdiction. Those supplementary protection certificates having European patents as their basic patents, may be opted-out from the jurisdiction of the UPC during the transitional period. Supplementary protection certificates granted based on national patents still do not fall under the jurisdiction of the UPC.

The changes would also be likely to affect such small- and medium-sized biotechnology companies operating in the pharmaceutical industry that are seeking to sell or license their patents to the big pharmaceutical companies, and for this reason (at least partially) will have to use the same patenting strategy as the big pharmaceutical companies, which can be challenging, given the limited financial resources of such companies. After the transitional period, the simplicity of administration may lead to unitary patents, provided that the costs are kept to a reasonable level. If the licensing and sales opportunities of unitary patents turn out to be better than those of the traditional European and national patents, this could also encourage companies to start using unitary patents, in spite of the centralised invalidation risk.

It is also possible that after the transitional period companies will apply for national patents in large/important UPC Agreement countries as well as traditional European patents in other countries.

Conclusion: As for patents affected by the transitional period, the patentee has many strategic options and during the transitional period, it is also possible to retain the positive aspects of traditional European patents. The decision over Finland's UPC ratification will not affect the pharmaceutical company's patenting strategy. Patenting strategy decisions are based on the jurisdiction of the UPC, and these challenges should be taken into account in the strategy regardless of whether Finland is part of the UPC system or not.

3.2.2 Case 2 (country-specific/uniform protection and registration of transfers)

A large Finnish paper and chemical industry company P has paper mills in Finland and Poland, as well as speciality chemical production plants in Germany and Sweden. The company sells its products widely in Europe and outside Europe (mainly within industry). The company has a number of European patent applications pending at EPO, as well as a number of granted European patents, which, in accordance with its patenting strategy it has brought into force in some relevant countries.

(a) Unitary protection/national country-specific protection

Company P operates in industries which in recent years has had very little litigation in Europe. However, there have been some opposition procedures at the EPO. In recent years the European competition and the market situation has been relatively stable.

It has been sufficient for company P to bring traditional European patents into force in some key markets. The countries in which the company's patents have been validated vary somewhat depending on the patented technology. The company has not validated its patents more extensively in the EPC countries after the London Agreement and the company does not find this to be necessary.

Company P conducts broad and continuous monitoring of competitors and, if appropriate, the company files oppositions against its competitors' patents. P conducts large-scale novelty examinations before patenting their new inventions. The company estimates that the majority of the patents they hold are reasonably strong.

Although Company P has not actually obtained a geographically extensive scope protection for its patents, P may, however, switch to unitary patents in the future, at least for some of its patents, if the costs remain at a reasonable level. Company P does not feel that the centralised revocation proceedings at the UPC court would constitute a significant threat to its patents.

(b) Ownership transfers

Company P has also recently acquired a Dutch company C that operates in the cleantech sector, and which has production facilities in the Netherlands, Finland and other countries outside Europe. Cleantech Company C has since then ceased to exist, following a merger with Finnish paper company P.

Company C is registered as the patentee of dozens of European patents, which have been validated in all or almost all of the EPC Contracting States, because there are a number of new players in the rising cleantech sector who are trying to expand their markets in Europe, and court proceedings have started to appear in the industry.

Finnish company P is satisfied, because the acquired company C's patents cover a wide area. In accordance with its strategy, Finnish company P wants to register all of the European patents that are in the name of merged company C, in its own name. When investigating the matter, P notices that the pending European patent applications can be fairly easily transferred over to P by registering any ownership transfers centrally at the EPO. Also transfers of ownership of unitary patents may be registered centrally at the EPO.

With regards to traditional European patents, the jurisdiction of the EPO ends with granting the patent. Therefore granted European patents registered in the name of merged cleantech company C cannot be registered centrally in P's name, and must therefore be registered in each country separately. This, however, would incur significant additional costs to company P, so the company decides not to register the transfers at this stage.

Now, company P would like to exclude the acquired cleantech patents from the UPC's jurisdiction ("opt-out"), when the UPC system enters into force. Company P finds out that a number of the patents are still in the name of company C. As the cleantech patents' registered holder C has ceased to exist, C may no longer file the required "opt-out" request at the UPC registry.

Company P investigates which patents are still registered in the name of Company C, and which patents Company P would like to opt-out from the UPC's jurisdiction. As there is a large number of patents, Company P hopes that the company would not need to register the transfers of ownership in each country separately, in order to be able to opt-out the patents from the UPC's jurisdiction. This would be too expensive for the company that at the time of acquiring the patents did not expect to have to opt them out from the UPC's jurisdiction sometime in the future. It is still unclear how to utilise the "opt-out" possibility in such a situation, in which the applicant is not the registered patentee of the patent. As a precautionary measure, company P will, however, begin to investigate which patents it would like to have excluded ("opted-out") from the UPC's jurisdiction, as well as in which company's name these patents are registered to in order to be able to act quickly when the UPC system comes into effect. In addition, the company will gather the necessary documents in order to prove that the company is the rightful owner of the patents.

Conclusion: For a global company that has a lot of patenting activity, as described in the example, Finland's ratification decision would have little impact on the company's patenting activity. It is generally sufficient for the company that the invention is protected in key market areas of the company.

Unitary patents will not become compulsory but in the future, a Finnish company may decide whether to protect their inventions with a unitary patent, a traditional European patent, or with

a national patent, depending on what the best option is in terms of the company's business operations.

From the company's perspective the extensive territorial scope of protection offered by unitary patents entails clear advantages. The patent protection would be completely uniform in all aspects, which would facilitate the administrative processing. Both annual fees as well as transfers of ownership could be handled in one action. This is a clear benefit, for example, in business acquisition situations. The "opt-out" procedure for traditional European patents may prove to be problematic and costly from the point of view of a globally operating company involved in mergers and acquisitions

3.2.3 Case 3 (geographically extensive uniform protection/country-specific protection)

Finnish mobile technology-focused successful SME has sought to protect its innovative technology carefully. It has a number of European patent applications and some granted European patents in two fields of technology. Among other things, because of a limited budget, the company usually attempts to validate its European patents only in certain major countries, depending on the technology.

U.S. company A becomes interested in the Finnish SME T's innovative technology, and would be willing to purchase a portion of its patent portfolio. When examining the patent portfolio in more detail, U.S. company A notices that SME T has mainly validated its European patents in Germany, the United Kingdom, the Netherlands, Belgium and Finland, but not in countries relevant to A, such as France, Italy, Spain, Austria, Switzerland, Norway, Denmark and Sweden, plus other countries where the competitors of the U.S. company have been having a lot of activities in recent years, and which are also the main market areas for the U.S. company. The U.S. company is considering whether it is worth to acquire the Finnish SME's enforced European patents or not. At least, this is crucial to the price that A would be willing to pay for T's European patents. If these patents were unitary patents and automatically in force over a wider area, they would have been likely to also have covered countries relevant to the U.S. company (provided that these countries ratify the UPC Agreement), other than Poland, Italy and Spain. The Unitary patents would not have covered non-EU EPC member countries, such as Switzerland and Norway.

By opting for a unitary patent the company receives an extensive territorial scope of protection with a single registration and does not need to decide separately which countries are relevant for the individual patent. This is simpler, for example, for such start-up SMEs, which do not yet know at the time of the grant of the patent, which markets will be most relevant for its operations. Geographically extensive protection may be a good alternative also in situations where the commercial potential of the invention is not yet fully understood. In addition, any future buyer's interests do not need to be considered separately, if the patentee chooses the unitary patent.

Still the territorial scope of protection afforded by unitary patents, at most, only cover the EU Member States participating in the unitary patent system.

As a consequence European patents should still be validated, for example, in non-EU EPC member states. The same European patent could therefore simultaneously be in force in different countries as a unitary patent and as a traditional European patent. Still, in the same country at the same time the patent may not be in force as a unitary patent and a traditional European patent. The patentee must therefore choose whether to register the patent as a unitary patent or nationally validated European patents.

Conclusion: From the point of view of an internationalized SME investing in its own product development and innovation, and thinking in global terms, the possibility to obtain an extensive territorial scope of protection for its invention in a simpler way than before would probably be a welcome improvement. From the company's perspective, it is desirable that the new unitary patent system's geographical coverage should be as broad as possible and that all important market areas would be involved in order for the system to be as cost-effective and competitive as possible in comparison with traditional European patents.

By opting for a unitary patent for those inventions, which are strong and difficult to invalidate, the company obtains an extensive territorial scope of protection with one registration, and the company does not separately need to consider which countries are relevant for the individual patent. Also, the company does not need to individually predict interests of a potential future buyer or licensee. A Unitary patent could enhance the companies' ability to sell their patent portfolios, license their patents and improve their access to venture funding.

3.2.4 Case 4 (non-patenting company)

Finnish family-owned engineering company operates in Finland as a component supplier for the industry, and exports its products to Russia. The company also has limited exports to Sweden and Norway. The engineering company is famous for its long-term customer relationships. However, the engineering company has not felt the need for patenting, and holds no patents.

Engineering Company S has not really been applying for patents and based on its previous experiences, it is sceptical of the whole patent system. In its subcontracting agreements, the company has taken the responsibility for all potential IPR infringements relating to their products. The big European players in the industry are from Germany and France. Their main markets are in Western Europe. Both have extensive patent portfolios, but the patents have previously been brought into force mainly in Central Europe. In this way the "marginal areas" of Europe have remained as a market for smaller companies to operate in. Finnish engineering company S is one of these operators.

With the emergence of the unitary patent system, the large international competitors have started to actively use this opportunity to their advantage in order to obtain an extensive territorial scope of protection for their patents.

If Finland has ratified the UPC Agreement, the Finnish company's freedom to operate is significantly restricted, as in all its deliveries it must ensure that it does not infringe any existing patents. Such investigations are laborious and expensive, reducing the profitability of the company. On the other hand, if the component manufacturer does not make the necessary freedom to operate analyses and patent surveillance, this may cause significant damage not only to the component manufacturer itself, but also to the customers who use the components in their products.

If Finland does not ratify the UPC Agreement, the Finnish company's freedom to operate is a little better. This benefit is, however, limited due to the fact that the unitary patent would be valid in all UPC-area countries. The component could not be supplied to customers to use in factories located in UPC countries or in products supplied to UPC countries. Thus, the engineering company would risk losing important potential customers in any case. Thus, the engineering company will probably look for new markets from outside the UPC area, for example, Russia or Norway, to replace Sweden, who has ratified the Agreement.

Another option is to only attempt to work for a single large supplier, who would take potential responsibility over IPR infringements.

A third option for the component manufacturer is to focus more on patent surveillance, freedom to operate analyses and above all, in its own product development in the future, in which case such patent disputes outlined in the example would not arise so easily. In addition, this could improve the company's competitiveness.

Conclusion: A small non-patenting Finnish company might be better off, if Finland would not join the unitary patent system, because in that case the protection of unitary patents would not automatically be extended to Finland. This benefit is still limited due to the fact that unitary patents would be in force in almost all countries in the UPC area. The company could not continue to sell such products in the UPC area that infringe the competitor's unitary patents. Thus, regardless of Finland's ratification decision, the company could risk losing potential customers.

3.2.5 Case 5 (traditional European patent/unitary patent)

Finnish SME Y manufacturing high-quality consumer products for a very specific target group, has applied for a European patent. The application is pending in the European Patent Office, but the Patent Office has already indicated that it is prepared to would accept the application in the near future. In Finland, the SME has already been granted a national patent based on a Finnish priority application. In accordance with the company's IPR strategy, previous European patents have been validated in Germany, the Netherlands, the UK and Sweden. While the European patent application is pending, other SMEs have started operating in several countries (Finland, Sweden, Denmark, France, Austria, Spain), presumably using the patent-protected technology of Y.

Now, company Y is planning to expand into new markets in the EU. When conducting a freedom-to-operate analysis, the company discovers that its competitors have, surprisingly, and contrary to previous practice, validated their later European patents very extensively in Europe, also in those countries to which start-up company Y plans to expand. In spite of oppositions filed by company Y their competitors' patents have been upheld by the EPO. The chances of getting their competitors' European patents revoked are therefore not high. If SME Y had validated its own earlier European patents in a more extensive geographical area, the company would now be in a better position to negotiate with its competitors or to sue for infringement at the UPC. Now, the company should resort to parallel national revocation proceedings in each country separately, as its competitors have opted-out their main European patents from the UPC's jurisdiction. Company Y decides that in the future it will (at least partly) use the unitary patent system and thus automatically obtain geographically extensive protection for its inventions.

Coincidentally, the company has at the same time received a positive office action for one of its European patent applications when the unitary patent system enters into force. Unfortunately, company Y has previously discovered a prior German patent application, which has been filed before Company Y's own application but has been published thereafter. The German patent application has not been addressed in the novelty or patentability examination because the EPO does not examine such prior national rights. Y is not willing to file separate claims for Germany to the EPO, because Y is concerned that there is not sufficient support for the required changes in the original application as filed. Y wonders whether the company would dare register unitary effect for the patent, in which case there is a risk that the unitary patent may be revoked in its entirety in potential UPC court proceedings. To be on the safe side, company Y decides to validate the patent as a traditional European patent in the most important countries. Since the company estimates the patent to be fairly weak and prone to invalidation attempts, the company also decides to exclude the European patent from the UPC's jurisdiction.

Conclusion: From a globalising SME's perspective, the possibility to protect their inventions in a geographically extensive area in a simpler way than before, would probably be a welcome improvement. The unitary patent would be particularly useful in situations where the commercial potential of the invention is not yet fully understood, or in situations where it is not yet fully known which markets will be essential. From the company's perspective, it is desirable that the new unitary patent system's territorial coverage should be as extensive as possible and that all important market areas should be involved, so that the system would be as cost-effective and competitive as possible in relation to conventional European patents .

The drawback is that the unitary patent is, to some extent, more vulnerable than the traditional European patent because it can be invalidated based on prior national rights. In particular, during the transitional period the patentee could register strong patents as unitary patents, while the weaker patents exposed to centralised invalidations should be maintained as traditional European patents that can be opted out from the UPC 's jurisdiction.

3.2.6 Case 6 (geographically extensive protection/patent in important markets, market expansion)

A successfully growing start-up company developing digital communications in the international marketplace has a number of pending European patent applications and also some already granted European patents. In accordance with the company's cost-effective patenting strategy the patents have been validated only in some important countries: Germany, Great Britain, the Netherlands and France. In addition, the company has national priority applications valid in Finland.

Start-up company M's patenting budget is quite tight, and in addition the company has often been forced to file patent applications at an early stage in order to get external funding. The start-up company has mainly been filing priority applications in Finland as the official fees in Finland are low by international standards, and it has been reasonably fast to obtain the first office action and search report, and the first patent has been granted quickly. At times, the company has filed direct national applications utilising the PPH system, which the company considers to be a good, fast and cost-efficient alternative to SMEs.

However, the company has usually filed a slightly improved international PCT application towards the end of the priority year, based on which regional applications are made at the EPO. The company's strategy has been to transfer the costs as far as possible into the future, as the company's financial situation has been uncertain. European patents have been validated only in the most important countries. The company estimates that it will start using the unitary patent at least to some extent, as the company estimates that this would facilitate obtaining external financing.

Now, the start-up company has filed a priority application in Finland with a tight schedule. Since the invention was becoming public, there was not time to conduct a proper novelty search before the filing of the priority application. The office action and search report the start-up company received from the Finnish Patent and Registration Office cites no prior art against the patentability of the invention. R&D has progressed during the year, and as a result the applicant decides to add some new embodiments to the application and to extend the scope of the claims before filing the PCT application. When entering the EP-stage EPO considers that the applicant has made such changes in the PCT application for which there is no adequate support in the priority application, and hence the applicant loses the priority. The European patent is still granted because there were no prior art publications for the re-defined invention. The start-up company wonders whether they should register this patent as a unitary patent or as a traditional European patent but finally decides to validate the patent in certain important countries. This was the only sensible option, because in the worst case scenario, the applicant's own priority application, which has become public and the effective date (the priority date) of which is earlier than the effective date of the European patent, might be a reason to invalidate a subsequent unitary patent as a whole (the so-called "poisonous priority" case). A similar problem does not occur with the traditional European patent validations, as the company's Finnish priority application can only be novelty-destroying to its own follow-up applications in Finland. Since the unitary patent constitutes a single uniform right, the entire unitary patent could be revoked based on a Finnish prior national right.

Conclusion: By obtaining a unitary patent the company automatically obtains an extensive territorial scope of protection for their invention that may prevent competitors from expanding their markets into new areas. The company does not have to separately consider in which countries the patent should be validated. The geographically wide protection is however prone to revocation based on such prior national rights. Also Finnish patent applications may constitute such national prior rights, if Finland ratifies the UPC agreement. If Finland does not ratify the UPC Agreement, Finnish applications will not constitute such prior national rights based on which unitary patents may be revoked.

3.3 Summary of the changing European patent system

If the unitary patent system comes into force, this is going to change the existing European patent system. Regardless of the Finnish ratification decision, the reform will affect Finnish companies' patenting strategies and operations. This applies to both small and large Finnish companies.

It will be possible for Finnish companies to obtain unitary patents whatever Finland's ratification decision will be. In the future, companies may decide whether they wish to have

their inventions protected by unitary patents, traditional European patents, national patents or utility models. In this way the company would be able to take advantage of the best aspects of the various forms of protection in different situations, depending on which is the best solution for the company's business strategy.

TRADITIONAL EUROPEAN PATENT	UNITARY PATENT
No need to apply for a national patent in all countries of interest, but still has to be validated separately in each country.	Covers a geographically wide area; patent is in force in all participating EU Member States or in none of them.
Ownership can be divided on a country-specific basis between a number of patent holders, but the system is administratively heavy and all assignments have to be registered separately in each country.	The same owner in all countries, a simple system in which assignments can be registered centrally at the EPO. Ownership cannot be divided on a state-by-state basis.
The scope of protection and effect may vary from country to country. May result in erroneous evaluations of freedom to operate.	Establishes uniform protection, the same requirements in all countries, scope and effect of protection of the same in all countries.
Cannot be revoked centrally. (This will change after the transitional period.)	May be revoked centrally. Prior national rights may be used as a ground for revocation.
Annual fees need not to be paid in countries in which protection is no longer needed. However, annual fees shall be paid for each country, in which protection is to be maintained.	Annual fees can be paid in a centralized manner by one transaction, but the costs resulting from annual fees cannot be adjusted by removing countries from the patent's scope of protection.

Applying for a patent in Europe is not going to change as such. The unitary patent system builds on the existing traditional European patent system, and the unitary patent is primarily intended as an alternative to traditional European patents. The change brought about by the unitary patent applies only to the registration of a granted European patent. The unitary patent provides a geographically wide and uniform protection for the invention by a single registration, which would be valid in all participating EU member states. This would greatly simplify the process that comes after the European patent has been granted in comparison with the current process, in which the patent shall be validated in each country separately. In all aspects the patent protection would be fully uniform, which would facilitate, for example, the administrative handling of the patent. Both the annual fees and ownership transfers can be dealt with in one procedure. In particular, this would provide relief in terms of interpretation of the scope of protection in different countries, since the patent's scope of protection and effect would be the same in all participating countries. The down-side is, however, the risk of the patent being revoked centrally based on prior national rights. In addition, the geographically extensive, uniform protection also brings disadvantages to the patentee. In particular, the level of payable annual fees for the unitary patent is likely to be relatively high, and the same kind of flexibility does not exist for them compared with European patents.

It should still be remembered, however, that the effects of the reform are very different for companies in various industries. For example, companies operating in the pharmaceutical sector, which have a pronounced need to obtain the most extensive protection possible for their inventions, have expressed concerns that the unitary patent (as well as traditional European patents after the transition period, which have not been excluded from the UPC's jurisdiction) may be invalidated centrally by the UPC. This could increase the popularity of national patents and utility models.

If Finland and all other countries ratify the UPC Agreement, a Finnish company could obtain protection in the form of unitary patents in 24 countries. If Finland does not ratify the contract, the same applies for the unitary patent in 23 countries. As Finnish companies do not validate many European patents in Finland, the Finnish ratification decision is unlikely to be of great significance in this regard. Companies may in any case, with a little more effort, protect their inventions either by national patents or by validating traditional European patents in Finland, should this be necessary.

On the other hand it must be remembered that the unitary patent system's effects do not only extend to patentees. The effects also extend to those companies that are competitors of the patentee or that are otherwise acting under the influence of patents, even if they do not own a single patent. While conducting an overall assessment, it must be remembered that what is beneficial to the patentee, is not always beneficial to third parties. Thus, the effects of the unitary patent system may vary a great deal for companies operating in different situations. Because the same company is sometimes the patentee and sometimes the competitor, the impact of the reform will also vary within the same company.

4. FINNISH COMPANIES ON THE EUROPEAN PATENT SYSTEM

4.1 On the current European patent system

4.1.1 Advantages and disadvantages of the current system

In the company survey the respondents were asked to estimate how significant the advantages and disadvantages related to the current European patent system are in their opinion. By far the most significant perceived disadvantage was the current system's requirement to validate the granted European patent in every country separately.

In the replies, the current, decentralized European patent system was clearly perceived as problematic:

- *"The European patent does not make sense as a concept, if the patent needs to be validated in each country separately. The patent should automatically be valid throughout the EU."*
- *"Validating patents in each country is a useless system that increases costs"*

One of the perceived weaknesses of the current system was the registration of changes of the ownership after the grant of the patent, which cannot be done centrally by the EPO, but must be made in each country separately. Perhaps somewhat surprisingly, the grounds of revocation of the traditional European patent based on prior national rights were also considered to be a weakness. This very reason may be why the fragmented, non-uniform patent protection was considered a weakness. This was surprising mainly due to the fact that in terms of the unitary patent, the revocation of the entire protection based on prior national rights, has been considered to be one of the biggest weaknesses and concerns.

The responses included, inter alia:

- *"Different sets of claims in different countries can be either beneficial or detrimental, fully depending on the situation. The situation may be favourable to the patentee, but again if you want to avoid infringement of the patent, and supply the same product globally, it may be a complicating factor."*

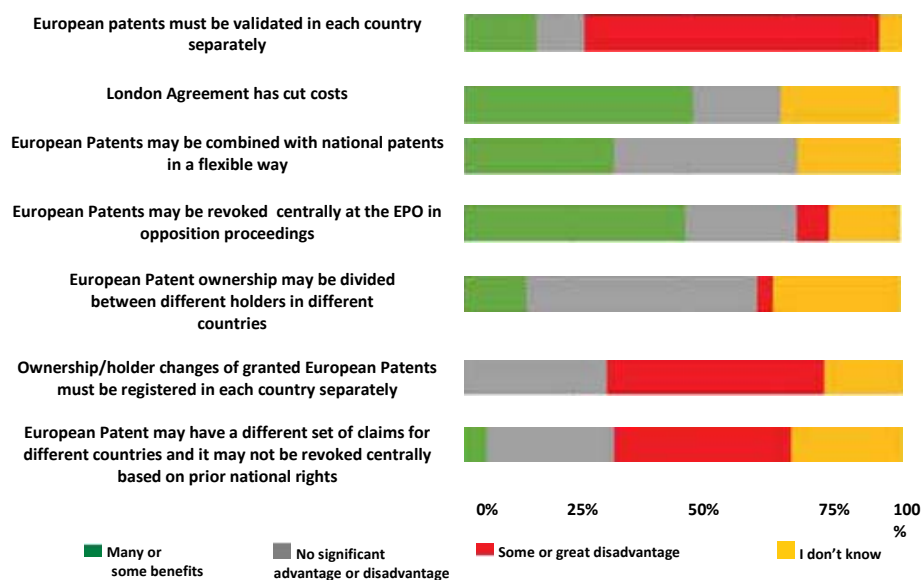
A few respondents pointed out that the effect of the different aspects, negative or positive, may depend on the position of the company:

- *"Some questions could be answered differently depending on whether you are the patentee or whether you are reviewing patents of third parties."*
- *"The answers depend on whether you are the applicant or the competitor."*

In particular the London Agreement was perceived as one of the strengths of the current European patent, which has already cut costs. In addition, it was considered a good option to protect inventions with national patents and European patents simultaneously. Many of the survey respondents had experience in opposition proceedings at the EPO. Centralised opposition procedure was also perceived as strength of the traditional European patent. It is therefore positive that this opposition procedure will remain for the unitary patent as well.

In the survey the companies considered it likely that the opposition proceedings would increase at least initially, because of the uncertainty relating to UPC decisions, whereas the EPO Boards of Appeals' practice is reasonably well-established and relatively predictable.

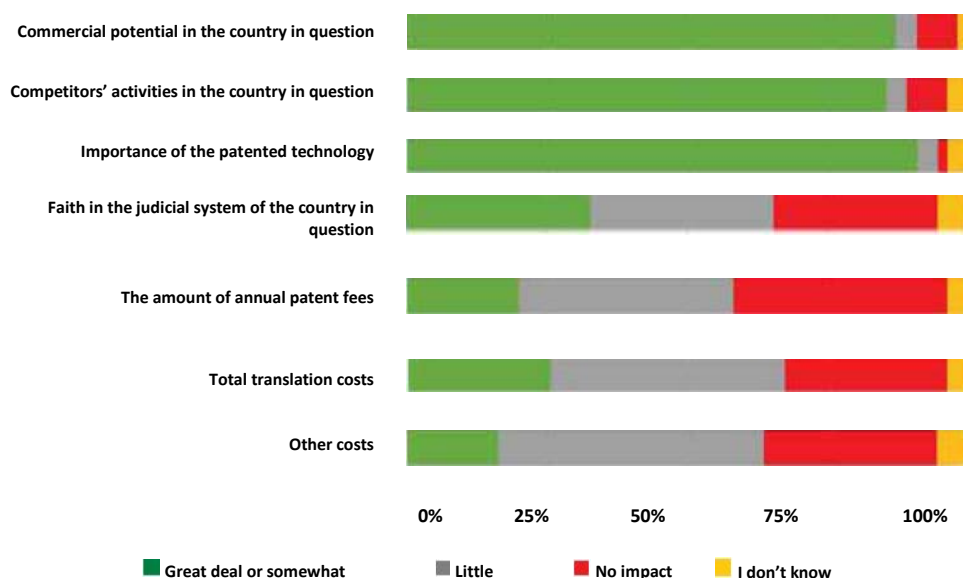
What and how significant do you think the advantages and disadvantages associated with current European patent system are?



4.1.2 The effect of the London Agreement

Respondents were asked to assess, on what basis they select the countries in which they are seeking patent protection. The importance of three statements stood out clearly from the other options. On the basis of the survey it became clear that when choosing the territorial scope of the protection, the decision is mainly influenced by business-related matters alone: 1) the activities of competitors, 2) commercial potential and 3) the importance of technology.

When your company chooses the European countries in which you are applying for patent protection, how much do the following factors affect your company's decision?



Over 75 percent of the respondents were of the opinion that the cost had no or little effect in choosing the countries. This was also highlighted when the respondents were asked whether they had validated more European patents in more countries after the London Agreement than in the past. Fewer than 15 percent replied with a yes.

Have you validated European patents in more countries after the London Agreement than in the past?



Positive responses were justified with cost savings. In contrast, in the negative responses it was emphasised that the country selection was not based on costs and also on the fact that validation of patents generate other expenses, too.

- *"The validations are made on the basis of business requirements rather than from a cost point of view."*
- *"Protection only in those countries where there is competition."*
- *"EP patents are in fact national patents, which in any case create a burden in terms of annual fees, as well as other validation and maintenance costs."*
- *"There was no need to extend the scope to more countries, and annual fees must also be taken into account, which will be payable in any case, when the number of countries is increased."*

One respondent stated that although the costs are important, they are not necessarily decisive in the case of protection of a significant invention. The commercial potential of individual inventions varies, and not all patents are equally important to the company. In particular, patents essential to the company's business activities have been validated in slightly more countries than the less important patents. Some of the companies interviewed stated that they have occasionally validated their European Patents in more countries, especially in the case of an important patent.

For the vast majority of the respondents (with the exception of the pharmaceutical industry in need of extensive protection) the validation of European patents in some major countries was sufficient, and the London Agreement had not changed this situation significantly.

When the companies were asked in which countries they usually validate their European patents, the responses particularly emphasised Germany, where Finnish companies have by far the largest number of patents in force, as well as the UK and France. After these, the most popular countries were Finland and Sweden. The responses also highlighted the big markets Italy and Spain, which have not acceded to the London Agreement and which, as it currently appears, are not going to join the unitary patent system (although Italy is going to take part in the UPC). Other important countries were Austria, Denmark and the Netherlands.

The results are largely in line with the European statistics, which show that the majority of granted European patents are validated in 3 to 5 countries, namely in Germany, Great Britain, France, Italy and Spain, while only about 20-30 percent of European patents are validated in the Netherlands, Belgium and Sweden.⁴⁸ The importance of the Nordic countries was highlighted in the Finnish companies' responses. It can be considered somewhat surprising that based on the replies, the company survey respondents felt that Austria and Denmark were more important than the Netherlands.

Finland joined the London Agreement on 1.11.2011, after which only a Finnish translation of the patent claims of a granted European patent is required, if the European patent has been drawn up in English. The description may be submitted entirely in English or in Finnish. Still, this, has not significantly increased the number of European patents validated in Finland. In the past six years (2008-2013), on average about 4,950 European patents were validated in Finland each year. In 2013, this figure was 5,164, which statistically does not significantly differ from the total of previous years. At least, the increase cannot be statistically explained by the London Agreement, especially when taking into account that in the early part of the millennium (2003-2007), an average of over 5,900 European Patents were validated each year. Most European patents validated in Finland are in the pharmaceutical and biotechnology sectors.⁴⁹

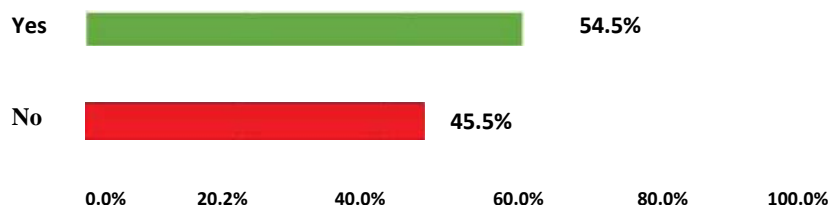
4.1.3 Is there a need for an extensive territorial scope of protection?

Although the majority of the survey respondents felt that the London Agreement has not resulted in that European patents are validated in more countries than before, when asked whether there was a need for a more extensive territorial scope of protection, still up to over half (52%) of the respondents felt that a more extensive protection could be useful. This is in conflict with earlier replies to some extent, but on the other hand, it indicates that the possibility to obtain a more extensive protection without incurring significant additional costs would be a welcome improvement.

⁴⁸ Hoffmann Eitle (2014), p. 26.

⁴⁹ <http://www.prh.fi/fi/patentit/tilastoja/eurooppapatentit.html>

**Does your company need to obtain protection in all EU countries?
(Unitary protection would not cover Italy, Spain or Poland)**



The need for an extensive territorial scope of protection was emphasised all the more the smaller the company. 100 percent of the companies employing fewer than 50 employees felt there was a need for an extensive protection. 67 percent of the medium-sized companies (50-250 employees) felt that there was a need for extensive protection. In contrast, only 43 percent of the large companies (over 250 employees) felt there was a need for wide protection in Europe.

When asking why the companies they needed to obtain patent protection in all EU countries, the companies said the following:

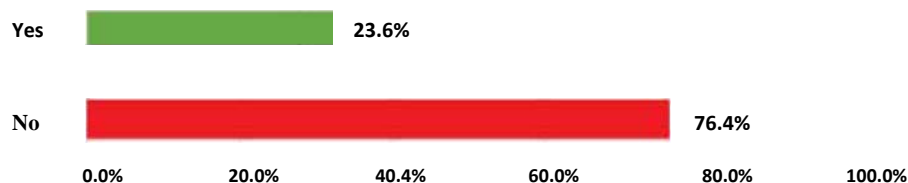
- *"Commercial exploitation in all countries"*
- *"Our company has customers in most European countries, accordingly wide protection would simplify things."*
- *"The business is mainly in all European countries, but the scope of business is limited and therefore there are not sufficient grounds to obtain national patents, but the protection would be very welcome."*
- *"Reduction of parallel importation"*
- *"Indispensable for medical products because of the internal market"*
- *"The patent would have a higher value in commercialisation activities."*
- *"When applying for patents, the widest possible coverage would be an advantage. Competition and the actors are in any case, international."*
- *"We want the widest possible protection for the invention, as the products are in use globally, and our competitors operate globally."*
- *"The need to obtain protection also in the countries where copying of products is affordable, even if there was no commercial potential in those countries in question."*

On the other hand, some companies also stressed that the countries potentially opting out from the new patent system are big markets, and it would be important for these countries to be included in the system.

- *"Italy, Spain and Poland are big markets."*

When the companies were also asked whether they suffered harm from the fact that the European patent had not been validated in all EU countries, the responses were mostly negative. Up to over four out of five companies surveyed reported that the company had not been inconvenienced. In a way this is very understandable, as based on economic indicators generally used by companies, it is very challenging to calculate the costs of potential loss of exploitation.

Has your company been disadvantaged by the fact that your European Patent was not validated in all EU countries?



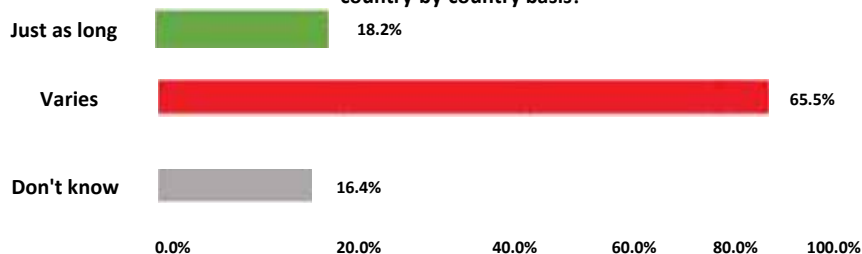
Less than a quarter of respondents reported that they had been disadvantaged because the traditional European patent had not been implemented in all EU countries. When asked about the damage caused to the company, the companies reported the following:

- *"Parallel imports"*
- *"When licensing, customers had sometimes asked for protection in a particular country in which the European patent had not been validated. If the patent had been validated in all countries, such a situation would have been avoided."*
- *"During the patent application process, all the potential commercial countries or countries in which the product could be cheaply copied had not been anticipated."*

4.1.4 The term of protection and the possibility to influence this at a country-specific level

From the patentee's point of view, one of the advantages of the traditional European patent is that it is not necessary to maintain the nationally validated patent for the same period of time in each country; the annual fees may be left unpaid for some less important countries while the patent protection is maintained in other countries. A large proportion of the respondents had taken advantage of this opportunity.

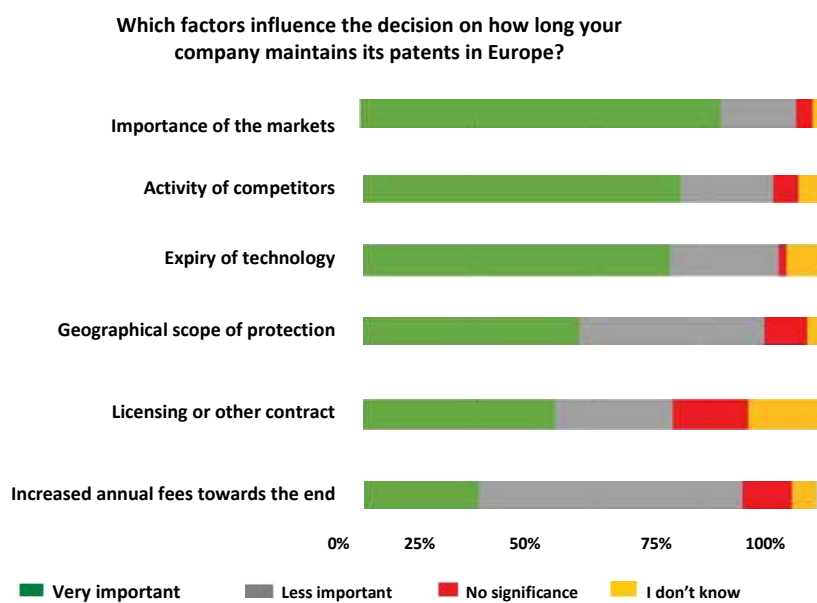
Does your company pay annual fees for validated European Patents in each country for the same period of time or does this vary on a country-by-country basis?



Respondents were also asked whether they felt that it was important to be able to decide on the payment of annual fees on a country-specific basis. The importance of this was surprisingly high, as over 80 percent of respondents considered this, at least to some extent, as important and over 45 percent of the respondents felt it was very important.

The unitary patent system does not offer such an possibility to give up patent protection gradually in different countries. The unitary patent protection provides uniform protection, subject to payment of a single annual fee.

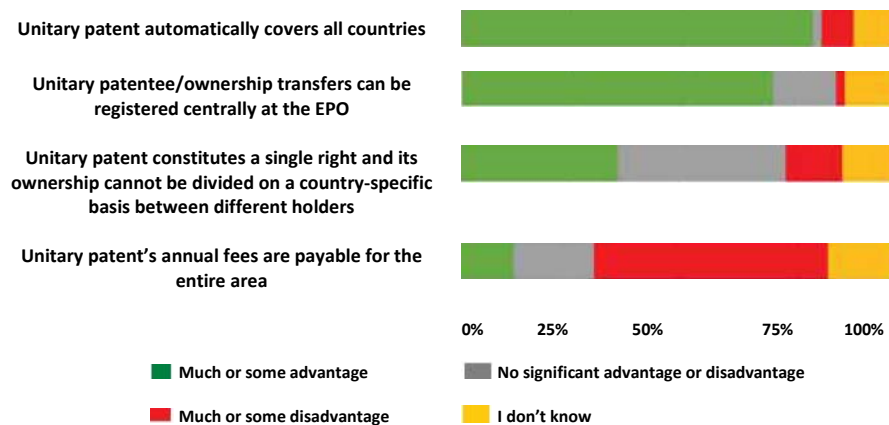
In the company survey, when the respondents were asked what factors affect how long they keep the patent in force in Europe, the reasons were much the same as for applying for a patent. The respondents felt that the benefit of patents for business operations is crucial for the making of the decision and costs (the increasing annual fees towards the end of the term of protection) are of little importance.



4.2 General information on the unitary patent

When assessing patent legislation and patent systems, the perspective is often different depending on whether it is considered from the patentee's or the competitor's/potential infringer's point of view. Often, these may be on opposite sides of the same coin, when the advantage of one side is a disadvantage of the other side. In the company survey, the respondents were asked what advantages and disadvantages are associated with the unitary patent specifically in comparison with the current European patents from the patentee's point of view. The survey was conducted by proposing statements to which the survey participants responded, according to whether they believe the matter in the statement would be beneficial, disadvantageous or not significant.

From a patentee's point of view, what advantages and disadvantages are associated with the unitary patent in comparison with the current European patent?



In their comments the respondents drew particular attention to the fact that the total annual fees for the unitary patent had not yet been agreed upon, emphasising that it is therefore difficult to carry out an assessment on the advantages and disadvantages.

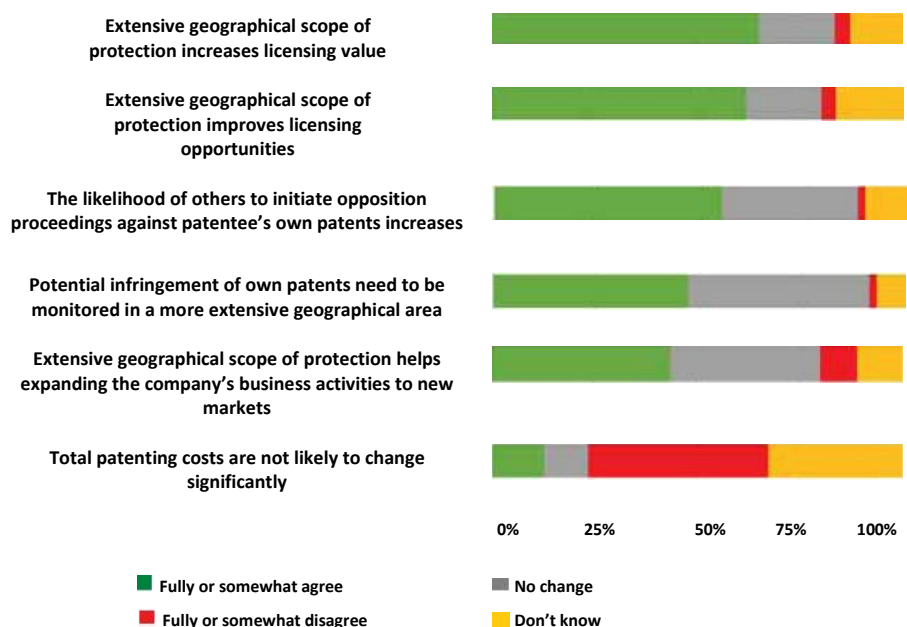
- *"The total for annual fees is still open, so it is hard to take a stand."*
- *"There is no indication about the change to cost levels."*

However, some respondent had already made assumptions about the future level of annual fees in the unitary patent system and stated, inter alia:

- *"Annual fees are likely to go up because of the real need for protection is only 2-3 of the countries."*

Companies were also asked to consider what effect it would have, if the company chooses unitary effect for its own patents, which are then valid over an extensive geographical area, i.e. in all UPC-member countries (with the exception of Italy).

A Unitary patent is in force in a geographically extensive area, namely in all UPC Agreement states. Do you agree or disagree with the following arguments?



In the open answers, a number of companies once again drew the attention to annual fees payable for the unitary patent. On the other hand, many respondents expected the agent fees to decrease, because the patents do not need to be validated in every country nationally. This assumption is likely to be in the right direction, as in addition to the reduction of translation costs, the amount of work carried out by agents when validating traditional European patents, would not apply to the unitary patent.

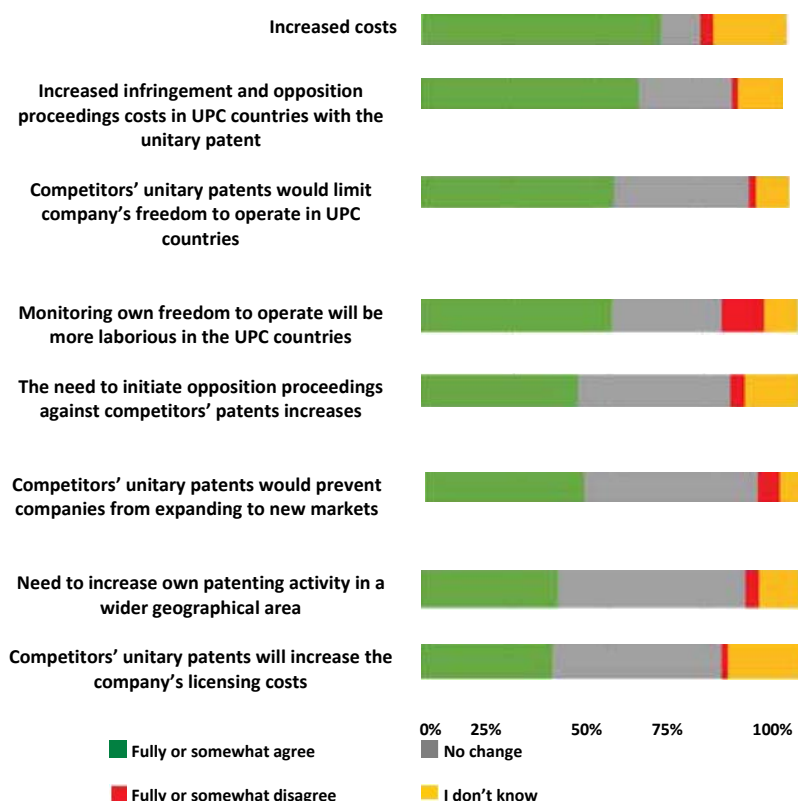
- "Annual fees are still an open question; the biggest costs are, however, the patent agent fees and costs incurred by the oppositions. Commercial potential is much more important than patent licensing opportunities. "
- "An impossible question to answer because we still do not know at which level the official fees would be set. General agent costs are likely to decrease. Majority of patenting costs is incurred by agency fees, and these are expected to decrease when only one patent/application is being processed. "

4.2.1 The unitary patent's impact on Finnish companies' patenting activity

One aim of the unitary patent has been to facilitate the patenting process and thereby also increase the patenting activity. This is believed to improve the competitiveness of European companies. The company survey respondents were asked about how they believed the emergence of the unitary patent would affect their patenting activity in a scenario where Finland takes part in the unitary patent system and in a scenario where Finland does not take part in it.

Only a few companies believed their own patenting activity would increase in general with the unitary patent, if Finland was included in the system. Only two companies believed their own patenting activity would increase, if Finland would not participate in the unitary patent system.

If Finland ratifies the UPC Agreement, there would be more competitors' patents in force in Finland. What impact would this have on your company's business activities?



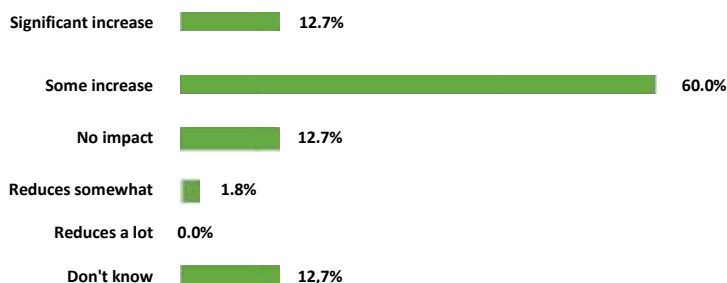
Accordingly, the majority of the respondents believed that the unitary patent will not affect their patenting activity and that Finland's ratification decision would have no effect. This is not in itself very surprising because companies have so far protected their important inventions in their home market in Europe, and new inventions will not increase due to the fact that the patent system changes. Instead, it is very likely that companies, whose head offices are outside Europe, will increase their patenting activity in Europe, if the system becomes simpler and more affordable.

4.2.2 Effect of non-EU companies' patenting on the competitiveness of European companies

Patents are rights to prohibit others, so the more patents are in force in your market area, the more limited your freedom to operate will be. The benefits of the newly developed unitary patent are available to all applicants regardless of the applicant's home country. Thus, non-EU companies would be able to benefit from the extensive territorial scope of protection in Europe, just as EU-based companies operating in their home market.

The survey asked respondents to estimate how much the unitary patent system, when entering into force, would affect the patenting activity of non-EU companies in Europe. The respondents were quite unanimous about this and almost 85 percent of those who answered the question, were of the opinion that non-EU companies' patenting activity would increase in Europe once the unitary patent system is in force.

**What impact do you expect the Unitary patent to have
on the patenting activity of non-EU companies in
Europe, once the system is in force?**



This is a worrying scenario for Finnish companies. Companies are virtually unanimous in that their own patenting would not increase at all with the unitary patent, but at the same time, companies have a strong belief that the unitary patent would increase the patenting activity of non-EU companies in Europe. The EU –area more patents of competitors will be in force, while at the same time the own patenting activity would not increase. Based on this, one would expect the domestic companies' competitiveness to reduce with the unitary patent.

However, the interviews highlighted that despite the scenario presented above, at least some of the companies believe that European companies will benefit from the reformed patent system more than non-European companies. This is based upon the assumption that a stronger, simpler and less-expensive patent system in their own domestic market would provide an opportunity, especially for small and medium-sized businesses to grow and develop, which would then benefit EU's domestic companies more than others.

Still, the majority of the respondents (51%), was more pessimistic and believed that if non-European companies' patenting activity were to grow in Europe, the competitiveness of Finnish companies would be reduced a lot or a somewhat. In fact, only 10 per cent of the respondents believed in the increased competitiveness.

When respondents were presented with the presumption that the patenting activity of non-EU companies would increase as a result of the unitary patent system, expressed their own views of the possible effects (benefits and problems) in this regard. Most notably, the company's increasing needs to assess its own freedom to operate was pointed out and the need to deal with competitors' patents. In particular, it was believed that the increased number of patents would hinder their own product development opportunities.

- *"Monitoring would be easier, but the increasing number of patents could cause problems for product development."*
- *"Freedom-to-operate-analyses must be carried out more frequently - a particular problem for growth-oriented SMEs?"*
- *"Some SMEs only operating in their domestic market may have problems in understanding patents, the amount of which may increase significantly in the future."*

- *"The rise in costs, presumably, would cause more work in the monitoring of competitors, risk of infringement risk would increase."*
- *"More patents will enter into force in Finland, which may limit the activities of the manufacturing industry in Finland."*
- *"Need for opposition proceedings (including third-party observations) would increase."*
- *"The competition would get tougher, the costs would increase, risk of infringement would increase, the importance of monitoring would increase, and workload will increase."*
- *"The SME sector is going to suffer from increased competition."*

Also, the fear of an expansion of the so-called "patent troll" –phenomenon was mentioned particularly in the software / ICT sector.

- *"In particular, in the software/ICT industry, patent applications are not necessarily connected to the holder's business operations. Since the unitary patent is centrally (=more easily) obtainable and the rights can be monitored, it is to be expected that it will facilitate the activities of non-EU patentees that make their money out of their patents. With the unitary patent and UPC (compared to the current system), the ground work required for a single patent application increases the risk of litigation (injunction) and a larger decrease in the calculation of licensing fees"*
- *"Patent troll activity increases in the UPC region."*
- *"The number of litigations may well increase, depending on the Court's activities. It is also possible that the so-called non-practicing entities will get more of a foothold in Europe. On the other hand, if those European countries that have been involved in "patent wars", where the companies have been fighting patent infringements globally, are included, then the unitary patent litigation costs may be reduced as one trial in Europe would suffice. "*

The negative impact is also seen as an opportunity, and indeed one respondent commented that:

- *"It is likely that Finnish companies would need to invest more in product development, which is a good thing in the long run."*

This idea is easy to agree with, as the increase in patents and thereby the increasing barriers for their own activities forces companies to think about new technical solutions. Patent infringement avoidance is a good incentive for product development. The higher the risk of patent infringement, the greater the need for the company's own product development.

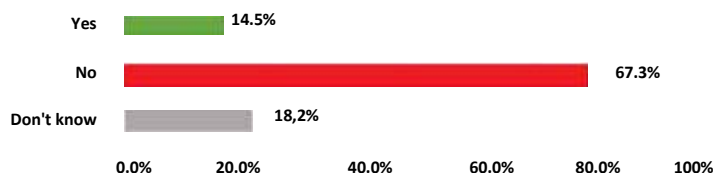
- *"The competition is getting tougher, but on the other hand, I believe that the resources allocated to product development will increase."*

4.2.3 Finnish companies' product development and production activities in Finland

Very mixed responses were obtained in the survey and interviews to the question on the impact the patenting activities of competitors will have on the company's own research and development in Finland. On the one hand the increased patenting of competitors was seen by many as an hindrance to their own development, and on the other hand, some felt it was a positive incentive to increasing their own product development.

When the individual companies were asked directly, whether Finland would be a more attractive country for companies' product development if fewer competitors' patents were in force in Finland, the responses were mostly negative. The majority of the respondents were of the opinion that a lower number of patents would not make Finland a more attractive location for the company's product development.

If there were fewer competitors' patents in force in Finland, would Finland be a more attractive country for your company's R&D?



Based on the interviews and open responses, the opinions of the survey-respondents were largely based on the fact that the respondents considered their product development as an activity that does not infringe a competitor's patent.

Often, however, it has not been taken into account that many methods used in product development, may have been patented, and utilising such patented methods in product development related to commercial activities is not permitted. Widely patented areas include a variety of analysis and screening methods and to some extent the different methods of product testing.

The majority of respondents started from the assumption that the R&D itself does not infringe patents, but the patents of competitors can make product development more challenging, because you need to find your own, non-infringing technical solutions. Again, this interpretation ignores pilot-level tests, which may already produce commercial quantities of products. It is very typical that before the actual initiation of production the company makes commercial test batches of the product known as a pilot project. Such activity, however, would infringe the patent if the product is patent-protected with a competitor's patent.

For example, many device suppliers make commercial deliveries of individual test equipment, and these are then tested in the client's production or factory facilities before making a final decision on the device fabrication and initiation of commercialisation. Any such development activities, which include partial commercialisation of the product that will be produced, shall be considered an infringement of the patent, if the product is patent-protected.

If the number of patents increased in Finland as the unitary patent will enter into force, this would have a negative impact on this type of experimental activity by Finnish companies.

On the other hand the responses emphasised the fact that the companies have to take into consideration patent infringement on the global level and that significance of the Finnish patent situation is therefore of minor importance to the big picture. The company's size or industry did not have an impact on the responses to the questions.

In their open comments the respondents stated, inter alia:

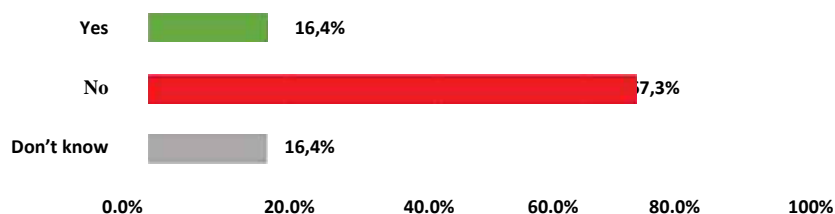
- *"Third-party patents do not affect product development, but rather the production, distribution and sales."*
- *"We will have to look at patent issues globally."*
- *"The Finnish patents are not a major factor in the functioning of our firm. Most significant patents in terms of our company are in the U.S., followed by Europe, Japan, and China."*

Therefore, based on the above responses, the companies did not feel the competitors' patents to have a substantial impact on conducting their product development in Finland. On the other hand, based on the open responses, it seems that the increase in the number of patents of competitors would have a negative effect on the willingness to invest in production facilities in Finland.

This was not, however, confirmed in the responses to the survey .

The respondents were asked whether Finland would be more attractive a country for a company's production if fewer competitors' patents were in force in Finland. Only one-sixth of the respondents were of the opinion that a fewer number of patents in force in Finland would make Finland more attractive to the company's production facilities.

If there were fewer competitors' patents valid in Finland, would Finland be a more attractive country for your company's production?



Based on the above two points, it can be concluded that Finland's UPC Agreement ratification decision would have little effect on companies' willingness to invest in product development or manufacturing facilities in Finland.

4.2.4 The unitary patent's impact on Finnish SMEs competitiveness

The European patent reform has been justified by the fact that the unitary patent would specifically serve the interests of SMEs. Therefore, in the company survey all respondents, regardless of the size of their company, were asked about the unitary patent's impact on SMEs. Respondents were asked whether it would promote or restrain Finnish SMEs competitiveness and growth.

Respondents, who felt that the unitary patent would promote the competitiveness of SMEs, assessed the situation mainly from a Finnish SMEs' perspective in terms of its own patents, rather than from the perspective of the competitors' patents. Respondents, who felt the unitary patent would weaken the competitiveness of SMEs, assessed the situation specifically from the point of view of increased competitors' patents.

Responses stated, inter alia:

ON THE COMPETITIVENESS OF THE UNITARY PATENT	
<i>Benefits/Opportunities</i>	<i>Disadvantages/Threats</i>
<p>"If the cost of a more extensive protected area was less than the cost of the current system, SMEs would have better chances of patenting."</p> <p>"The cost would decrease and the [geographical] scope of protection would be quite extensive at once. It is not always easy to predict which countries are relevant, so covering a wider European area automatically would be a bonus."</p> <p>"Competitiveness would increase in the long term due to the need to increase investments in product development and services."</p> <p>"The SME could move to the European markets more quickly and cost-effectively."</p> <p>"To the extent that the SME operates in the global market, its patents that are valid only in Finland are useless. If it will become easier to obtain a broader territorial scope of patent protection, it is a good thing."</p> <p>"It enables royalty income from areas where it is not worth marketing."</p> <p>"For a company actively protecting its research and development work and their results the unitary patent creates opportunities for commercialisation, e.g. licensing."</p> <p>"It would (hopefully) provide a cost/benefit ratio, which would allow European patents to be used to obtain external financing in the future. Currently, of course, it is mainly done with U.S."</p>	<p>"It would undermine the competitiveness as presumably small and medium-sized firms would not themselves use the unitary patent."</p> <p>"SMEs do not have a lot of resources to litigate, if they are sued for patent infringement. Especially if the litigation takes place in a foreign country."</p> <p>"The risk of patent disputes for growing companies would increase, especially if Finland were to join the unitary patent system. However, that should not be considered a decisive criterion in terms of Finland's accession. If Finland remained outside the agreement, it would delay the growing companies' patent infringement risk only until they decided to move to larger markets than Finland."</p> <p>"Probably would weaken competitiveness, as there would be more patents in force covering of Finland, which would create more of a risk of patent infringement, which would not exist without the new system."</p> <p>"Large companies (say Chinese) could block the whole of Europe with a single patent. Significant disadvantage."</p> <p>"SMEs operating in the domestic market, would suffer from the increase in the number of patents by global companies, Finland has not been a very interesting market for EP patent registration."</p> <p>"The company can be sued in other countries, not just in Finland."</p> <p>"Litigation sensitivity may increase, as costs are reduced and one trial is enough to obtain a decision with effect in all countries. It may be that some of the activities of the non- practicing entities in the US, and that are provoking a lot of discussion, would also gain ground in Europe, making the activities of SMEs all the more challenging. "</p>

Also, in the company interviews it was assumed that especially growing globalising Finnish SMEs, investing in development and innovation could benefit from the extensive territorial scope of protection offered by unitary patent. Unitary patents might, for example, improve the possibilities of SMEs to sell their patent portfolio, to license their patents, and to improve their access to venture funding. However, many interviewees also pointed out that extensive territorial scope of protection is not enough; companies should also invest in the quality of their patents, so that the patents would not be easily revocable in the UPC court and so that their scope of protection would be sufficiently broad.

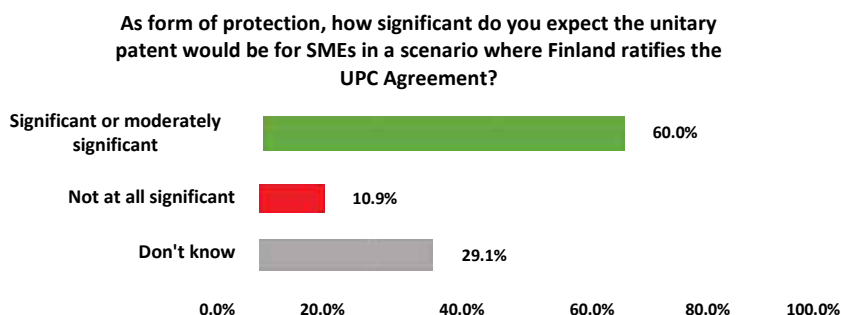
In addition, several interviewees stated that the territorial scope of protection offered by the unitary patent could be useful in situations where, for example, a fledgling start-up company does not know which markets will be central for the invention or where the invention's commercial potential is not clearly known when the European Patent is granted.

On the other hand, the risk of having more patents in force, not only in Finland, but in the whole of the EU, was acknowledged in the interviews, which in turn would reduce the Finnish SMEs freedom to operate. Many of those interviewed have indicated that in the future the SMEs should be more focused on monitoring competitors' patents and conducting freedom to operate surveys.

When making an overall assessment, first the advantages and disadvantages to Finnish SMEs should be assessed, and thereafter additionally it should be assessed whether the direct advantages outweigh the disadvantages, and also taking into account how the situation will change in the future. The benefit received by Finnish patent applicants from the geographically extensive uniform protection needs to be weighed against the harm caused by the fact that more patents are in force in the participating EU member states, and that an increasing share of them originate from non-EU companies. If Finland ratifies the UPC agreement, these patents would also be valid in Finland.

Some of the respondents had in fact identified the potential harm caused by unitary patents, but they still did not consider these disadvantages to be so extensive that Finland should remain outside the unitary patent system.

Overall, 60 percent of respondents believed that the unitary patent system would be a significant or at least a moderately significant means of protection for SMEs, if Finland ratified the UPC Agreement.



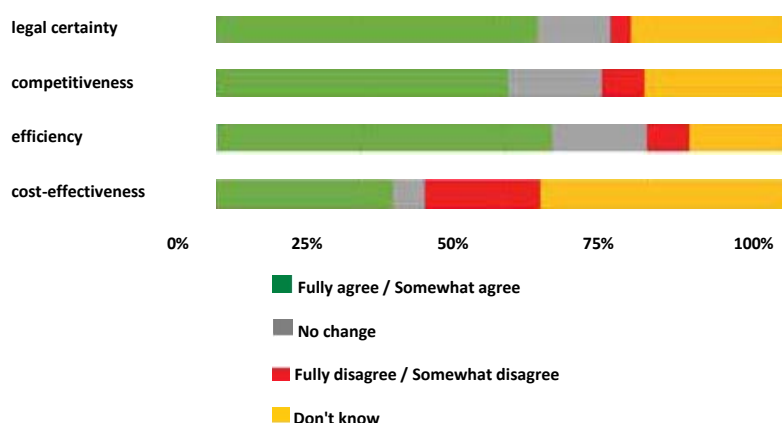
On the other hand, when the companies were asked, if they would answer differently, if Finland does not ratify the UPC Agreement, the answers remained practically unchanged. There were only a few more "Do not know" responses.

At the same time, it is also possible that the SMEs' patenting strategy may be affected by what the big players in the field are doing, and that there are huge differences in various fields of technology in terms of SMEs. For example, in the pharmaceutical sector companies would be expected to mainly use traditional European patents, which they opt-out from the UPC's jurisdiction. This is a fact that those biotechnology companies operating in the pharmaceutical field, seeking to sell or license their patent portfolios to bigger pharmaceutical companies, are likely to have to take into account in their patenting strategies. Therefore it is possible that during the transitional period biotechnology companies would at least to some extent use European patents for their important inventions, which they will opt-out from the UPC's jurisdiction. Companies in the pharmaceutical sector would also consider the possibility that they could, at least to some extent, start using national patents after the transitional period, so that the patents remain outside the UPC's jurisdiction, at least in the most important countries. Traditional European patents could be used for less important countries.

4.3 Comparison of the new and old systems

The aim of the European patent system reform has been to achieve an even more affordable, simpler, more competitive and legally certain way to protect an invention. When the respondents taking part in the survey were asked to evaluate whether the unitary patent would increase legal certainty, competitiveness, efficiency and competitiveness compared to the existing European patent, the majority of respondents were of the opinion that the unitary patent would be a more legally certain and more efficient means of protection for the invention than the traditional European patents. Half of the respondents felt that the unitary patent was more competitive than the traditional European patent. Only one-third of the respondents assumed that the unitary patent would be less-expensive than traditional European patents.

In comparison with the current European patents, in your opinion, would the unitary patent increase



In this context some of the respondents stated:

- *"It depends in how many countries you are validating your EP patents."*
- *"[Unitary patent] may prove to be more competitive for non-EU companies since it reduces bureaucracy."*

The application process for a patent in Europe does not change. The Unitary patent system builds on the existing European patent system. European patent applications are filed at the EPO. Change brought about by the unitary patent applies only to the registration of the granted European patent. With the unitary patent you may obtain geographically wide and uniform protection for your invention with a single registration, which would have effect in all participating EU Member States. This greatly simplifies the process that takes place after grant of a European patent compared to the present system, in which the patent must be registered in each country separately.

For the patentee, the unitary patent will offer clear benefits. Patent protection is fully uniform, making the administration of the protection easier. Both the annual fees and transfers of ownership can be carried out with a single action. In particular, it will become easier to determine the scope of protection in different countries, as the patent's scope of protection and effect is the same in all participating countries. Although the registration of unitary effect will be more affordable than validating the patent in 24 EU countries, the level of annual fees for a wide territorial scope of protection is likely to be relatively high. Decisions on the level of annual fees has not yet been made.

The effects of the unitary patent on Finnish companies depends on whether the company itself is an active patentee, who to protects its inventions over a large geographical area, or a growing globalising SME investing in innovations, or a non-patenting domestic company.

The drawback of the wide geographic protection brought about by the unitary patent is that patentees' and competitors' freedom to operate narrows, if there are more and more patents in force in Europe. This change applies to all companies operating in patent-intensive areas, including those of companies that do not patent themselves.

Many respondents also identified the risks imposed by the unitary patent and a unified patent court. Geographically wide revocation and geographically wide injunctions are potential disadvantages of a unitary patent court system, and so is the potential patent flood risk, which is discussed in more detail in Chapters 5-7 of this report.

The already globally acting respondent companies of this survey did not find Finland a very important market. Thus, Finland's ratification decision may not be of very great importance in terms of benefits for the survey respondents. Companies may be able to protect their inventions, either by national patents or by validating traditional European patents in Finland.

If Finland and all other countries ratify the UPC Agreement, a Finnish company could protect its inventions with a unitary patent with a single registration in up to 24 countries (provided that all other countries to ratify the Agreement). If Finland does not ratify the Agreement, the same is true for the unitary patent in 23 countries. As the Finnish companies do not validate many European patents in Finland, the Finnish ratification decision would not be a great advantage for Finnish companies from this point of view. In any case Finnish companies could protect their inventions, either by national patents, by national utility models, or by the traditional European patents entered into force in Finland with a little additional effort. In addition, many Finnish companies are already filing Finnish priority applications, thereby protecting their inventions in Finland.

Respondents pointed out that it is difficult to make a final decision on the unitary patent, because so many things are still pending. As regards legal certainty, a number of interviewees stated that legal certainty, at least in the short term would be compromised. The usage rate of unitary patents would particularly be affected by the costs. It is not yet known what the level of annual fees will be or which countries will join the system. Many of the respondents considered it important that the system's geographical coverage would be as extensive as possible. In addition, the drafting of the rules relating to unitary patent protection is still in progress. Also, these may affect the unitary patent's popularity.

FUTURE AFTER THE REFORM?

Companies that participated in the report also expressed some criticism of the new patent system.

In particular, the companies were dissatisfied with the complexity and lack of clarity of the new system. Unitary patents do not replace any existing form of patent, but it will be a new alternative co-existing with traditional European patents and national patents. At the same time, however, the traditional European patents are forced under Unified Patent Court UPC's jurisdiction.

From this perspective, the aim in the future could be to replace the old European patent system as a whole with the currently presented new system in the agreement countries.

At the same time the reformed judicial system's local and regional divisions could also be applied as a model for reforming the patent granting process. In this case, the European patent applications could be filed through local national offices, and only the Board of Appeal would be centralised in the current European Patent Office, which could act as a central division in the future.

Some of the companies interviewed did clearly identify the need to pursue the reform of the European patent system even after the currently proposed reform.

4.4 National patents

4.4.1 National patents combined with the PPH system

The respondents were asked to estimate whether national patents, combined with the improved/more extensive PPH system (Patent Prosecution Highway) available would be a viable alternative to European patents and the unitary patent. Some of the respondents considered the system a good or even a very good alternative, especially in situations where protection was only required in some countries and/or the protection was required urgently:

- *"PPH is a great idea, and indeed it is in this direction we should be heading. It is a way to get your patent in force fast."*
- *"Yes. It enables a cost-effective selection of countries and sufficient uniformity for patents validated in different countries. "*
- *"PPH between European national offices can be an effective method to apply for protection, if protection is only required in a few countries."*

Some of the respondents, in turn, hoped that the system be developed further:

- *"PPH with EPO could also be on the list."*

Companies who responded negatively to the idea justified their opinion by increased costs and other problems relating to a decentralised system. In addition, some of the respondents did not consider national patents as strong and credible as European or unitary patents.

- *"Even if the scope of the PPH was considerably expanded, it would only result in more national applications at a faster pace. Savings on official action costs made with it, would not compensate for the patenting cost savings brought about by the unitary or European patents in Europe."*
- *"PPH, at its best, is a national system with all of the national system costs. UPC does not prevent using the PPH between the EPO and those offices having signed PPH agreements with the EPO"*
- *"The current European patent is strong and its registration can be targeted to countries. Quality of national patents, i.e. their credibility is generally weaker."*
- *"The national patents would increase the maintenance and translation costs."*

4.4.2 First application to the national or the regional patent office?

When respondents were asked in which countries they were filing their priority applications, the majority of respondents reported filing Finnish priority applications. Many companies were also filing priority applications in the USA. In addition, a significant number of the Finnish companies had filed national priority applications in the UK and in Germany. Priority applications had been submitted sporadically to some other national offices, and for example China was mentioned four times. In addition, the individual other countries mentioned included Italy and Norway.

In addition to Finnish national applications, European patent applications were quite popular as priority applications. Some of the respondents also filed their first applications directly as PCT applications.

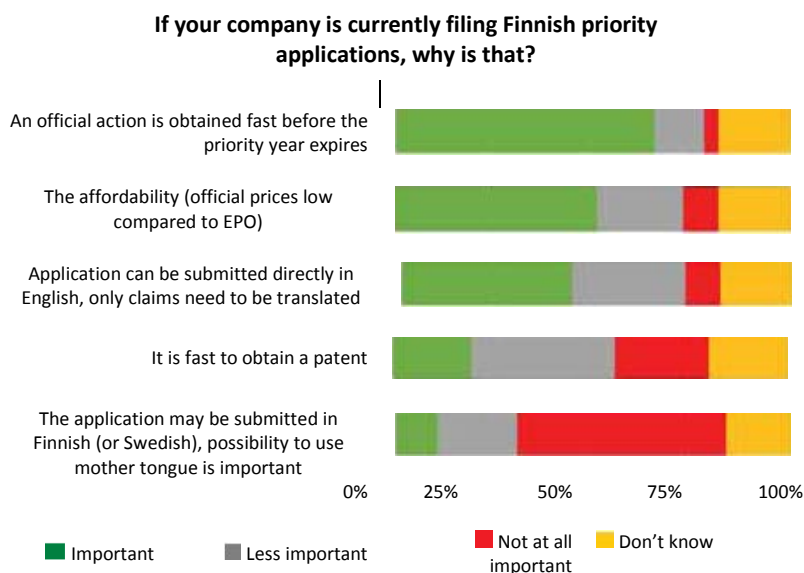
Based on the interviews, in certain fields of technology, such as the ICT sector, the need to get the first application pending in the United States was specifically emphasised. Other respondents, for example, SMEs operating in the pharmaceutical sector, had submitted simultaneous priority applications in both Europe and the United States.

4.4.3 Priority application to the Finnish Patent Office

The majority of respondents filed their priority applications in Finland. Respondents were asked about the reasons as to why they were first applying for a Finnish patent. The majority of the respondents listed as the most important criteria the fact that an office action is obtained relatively fast before the priority year expires. However, the interviews revealed that majority of respondents wished that it would be even faster to get the first office actions from the Finnish Patents and Registration Office. The interviewees indicated that they would be willing to pay

- *"up to the equivalent of the official price of the PCT application's search report in order to obtain a good-quality official action and search report within few months from the Finnish Patents and Registration Office."*

Almost four-fifths of the respondents felt that at least to some extent it was important that the Finnish priority application could be made in English directly and that only the claims must be translated into Finnish or Swedish. On the other hand, at the same time over half of the respondents did not consider it at all important that Finnish priority applications could be written in Finnish. With regards to the latter, company size had no effect on the response, the answers of small and large companies were distributed in the same way. Instead, the company's field of technology/industry seemed to be relevant when asking if the preferred language was Finnish. Except for one respondent, all the others respondents who felt it was important to be able to use Finnish, were in the mechanical engineering sector. Only one of the chemistry, biochemistry and electrical/ICT sector companies felt it was important to be able to file the first application in Finnish.



Additionally, in the open questions, one of the respondents stated that the reason to file the application in Finland was as follows:

- *"a case of habit, but moving towards filing EP applications also as a priority application"*

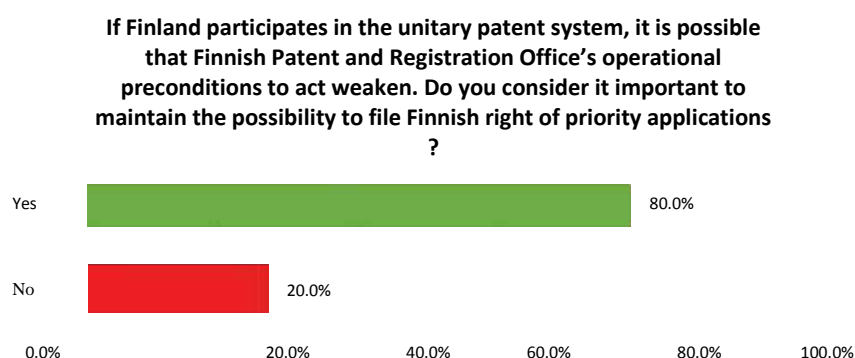
Another respondent stated social responsibility as the reason by commenting:

- *"We wish to support the Finnish Patent Office as an examining patent authority."*

4.4.4 The Finnish Patent Office's role in the future

The operational preconditions of the Finnish Patent Office after the unitary patent system has entered into force has been one of the points to be clarified.⁵⁰ Currently, a significant part of the Finnish Patent and Registration Office's income is based on the annual fees for patents. These revenues are expected to decrease considerably if Finland ratifies the UPC agreement.

In this statement Finnish Patent and Registration Office's operational preconditions for acting have not been evaluated but instead the attempt is to explain how important Finnish companies feel it is for Finland to have a national examining patent office. In this respect, the position of the Finnish Patent and Registration Office's is secure, as up to 80 percent of respondents felt it was important to maintain the option to file Finnish priority applications and other national Finnish applications.



In the open comments the respondents justified their opinions as follows:

- *"It is important for Finland to maintain its patent expertise. It is particularly important for SMEs to preserve a national patent office but this would impact innovation, research and product development as a whole in Finland. Additionally, through a national office, Finland can influence EPO's work and practices, for example, through EPO's administrative organisations, such as" the Administrative Council of the EPO".*
- *"Perhaps for the small companies that are principally only operating in Finland it makes sense to apply for patents only in Finland. It makes more sense for larger, internationally active firms to file directly European applications/unitary patent applications and thus protect the invention in a more extensive area with less effort. "*
- *"It is good to receive the search report as soon as possible, as the patent application may also be associated with other types of investments. But one could use any national office for this purpose, especially as the quality of Finnish Patent and Registration Office's search report is currently not necessarily competitive."*

⁵⁰ See e.g. Määttä–Keinänen (2008) and (2009) and the National Board of Patents and Registration of Finland (2011).

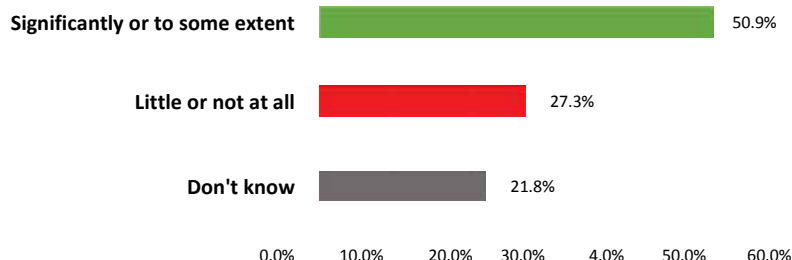
- *"It is nationally important that a patent can be applied for in one's mother tongue, especially when protection is not applied for elsewhere. Finnish expertise must be ensured also by a Patent Office."*
- *"It matters for the development and the maintenance of the Finnish IPR infrastructure and competence. In the longer term, it would be more relevant to change the EPC and/or the EPO's practices in such a way that the national agencies could serve as the EPO's examining and searching "sub-contractors" or departments, or at least a PPH agreement should be established between EPO and the Finnish Office."*
- *"The language issue is important for the SME sector, at least for now, though is diminishing all the time. An affordable priority application is useful if the value of the invention is not clear at the beginning."*
- *"Particularly important for SMEs, is the Finnish Patent Office's local services and expertise, not just the role as a patent granting body."*
- *"For a Finnish SME applicant the Finnish Patent Office's weakening operational preconditions is a disaster. The high-quality and affordable first office action is really important, when future patenting steps are planned."*
- *"There should be a possibility to file priority applications."*
- *"If lower protection costs and extensive geographical coverage are achieved with a unitary patent, a single application would suffice."*
- *"It is important to maintain IPR infrastructure in Finland."*

In particular, companies felt that the Finnish Patent Office's influence was significant in terms of domestic innovation activity. On the other hand the respondents highlighted that the Finnish Patent Office's existence is critical, mainly for SMEs. One respondent stated in their open comment the following:

- *"Finnish Patent Office is an important educator and expert/authority in our country. It is utopian to imagine that SMEs are going to initially embark on international patent activity from a non-Finnish perspective. It is just as likely as a small company acquiring their legal services from a London-based agency at the initial stage."*

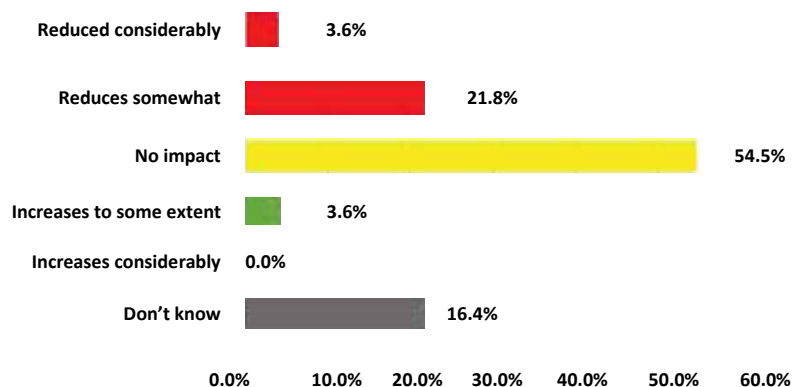
Companies were asked whether the possible weakening of the Finnish Patent Office's operational preconditions would endanger the position of the domestic businesses in view of innovation activity. Answers were quite dispersed, but still about half felt their innovation activity would be compromised substantially or at least to some extent.

Does the possible weakening of the Finnish Patent Office's operational preconditions endanger the position of the domestic businesses in view of innovation activity



Companies were also asked about how they would use Finnish Patent Office's services in the future, if Finland would participate in unitary patent system. Although over half of the respondents did not believe that this would have any impact on their company's use of Finnish Patent Office's services, the total evaluation still suggests that it would be likely that fewer Finnish Patent Office's services would be purchased than today.

How would the potential ratification of the UPC Agreement and adoption of the unitary patent system affect the use of the Finnish Patent Office's services in your company?



4.5 Summary of the European patent reform's impact on companies

The aim with the reform of the European patent system has been to establish a more affordable, more efficient, competitive and legally a more certain way to protect inventions in Europe than the existing European patent system. Still, unitary patents will not become mandatory, but in the future Finnish companies could decide whether to protect their invention with a unitary patent, a traditional European patent or a national patent, depending on which is the best solution in terms of the company's business activities.

The extent to which companies switch to unitary patents will only be seen once the unitary patent system enters into force. A key factor impacting the future utilisation rate of the unitary patent is the level of annual fees for unitary patents.

Although cost efficiency is important to patentees, other factors, such as needs and strategies of individual companies, as well as confidence in the new patent court system and its operation will affect the popularity of the unitary patent.

The survey and interviews showed that it may often be sufficient for both large and small companies to protect their inventions in only a limited number of key countries, i.e. in main market areas relevant to the company. In such situations, it may continue to be sufficient for companies to protect their invention with traditional European patents or possibly even with national patents or utility models.

However, it is likely that companies will start using unitary patents to some extent. During the transitional period companies will also have access to the traditional European patents, if they have a need to validate the patent only in a few specific countries, or if the company wants to opt-out from the UPC's jurisdiction. It is likely that some companies will also use national patents and utility models. This applies particularly to situations where protecting the invention in the main markets is sufficient and the company does not need an extensive territorial scope of protection covering almost the entire area of the EU, or if the company does not want patent disputes to be handled centrally by the UPC court.

However, it should be remembered that the effects of the reform are very different for companies operating in various industries. For example, companies operating in the pharmaceutical sector, which have a pronounced need to obtain the most extensive protection possible for their inventions, have expressed concerns that the unitary patent (and after the transitional period the traditional European patents, which are not opted-out from UPC's jurisdiction) may be revoked centrally by the UPC.

It is possible that companies that want to opt-out their inventions from the UPC's jurisdiction start using national patents, at least in the most important countries. On the other hand it is also possible that the administrative ease of the unitary patent system (the protection registration, annual fees, any transfer of ownership, protection and single impact of the protective effect or scope of protection) will, in the long run, encourage companies to start using unitary patents.

CHECKLIST

1. *The current decentralised European patent system has been regarded as problematic. Half of the company survey respondents felt that the geographically wider unitary patent protection was useful. In particular, SMEs had emphasised the need for more extensive protection. After the London Agreement patents had not been validated in a wider area, since the more extensive protection would have incurred additional costs, despite the low translation costs.*
2. *Companies' patenting activity was not expected to increase due to unitary patent. In addition, Finnish ratification decision was not expected to affect this. Unitary patent was expected to increase the patenting activity of non-EU companies in Europe. If the non-European companies' patenting activity increases in Europe, the competitiveness of Finnish companies was expected to decrease a lot or a little.*
3. *The advantage of the uniform and wide geographical protection for Finnish patent applicants needs to be weighed against the disadvantages caused by the fact that more patents will be in force in the participating EU member states, and that more and more of those would be from companies from outside the EU.*
4. *Unitary patent utilisation rate is affected by the patent-related costs, as well as the level of confidence in the functioning of the patent court. The needs and strategies of businesses in different industries vary.*
5. *The majority (80%) of the respondents felt it was important to continue to preserve the possibility to file Finnish priority applications and other Finnish national applications.*

5. UNIFIED PATENT COURT UPC

5.1 Outline

Europe has long had the need to improve the current litigation system. The following objectives have been identified in the design of the new Unified Patent Court (UPC), *inter alia*:

- "The court system should be functional and cost effective and it should ensure the greatest possible legal certainty in terms of litigation relating to patent infringement and validity. Moreover, it should be located close enough to the users of the system. Its composition and common rules of procedure should reflect its multi-national character."⁵¹
- "Implementation of a Community patent and improvement of the fragmented patent litigation system would improve accessibility of the patent system and cost savings for all parties in the patent system."⁵²

In February 2013 the UPC Agreement was signed by 25 EU member states. Spain and Poland remained outside the Agreement. Italy is involved in the court system, but not in the unitary patent system. The new EU country Croatia has not yet signed the Agreement.

While the unitary patent's intention is to enter the patent into force in all countries participating in the system at the same time, the Unified Patent Court UPC's intention is to resolve patent disputes in one court, with jurisdiction over all of these states. Disputes regarding both unitary patents, and traditional European patents ("European patent") would be resolved in terms of UPC countries concerned. When UPC resolves a patent infringement or revocation action, the decision will be enforceable in all the UPC countries in which the patent is valid, i.e. in unitary patent cases in all the countries participating in the unitary patent system. For example, in a UPC infringement trial an injunction ruling means that the infringer must stop all commercial activities within the scope of the patent in all these Member States. If, however, the revocation action is successful, the patent expires at the same time in all the Member States.

During the seven-year transitional period, actions for **European patent** infringement or revocation may continue to be brought in national courts or other competent national authorities. In addition, the company is able to decide for each patent individually, whether to opt-out of the new system (opt-out) for the whole period of validity of the patent. In such a case, the European patent disputes would be resolved in national courts, as usual. The transition period may be extended for a further period of seven years. During the transitional period, companies have the opportunity to make more strategic choices, since after opting out of the court system the company may choose to re-join the system at any point, even after the transition period and this would apply for each patent individually (withdraw opt-out/opt-back-in).

The UPC's central division functions will be distributed to Paris, London and Munich. In addition, a Contracting State may establish a local division or a regional division together with other states. The Central Division and divisions initiated by the Member States essentially deal with different things. Infringement actions will primarily be dealt with in the divisions established by the States and direct revocation actions will be dealt with at the Central Division.

Because of the uniform rules of the Court and expertise required from the judges, the solutions might be expected to be similar regardless of where the infringement took place and where the alleged infringer was registered. If neither of these countries have a national or a regional division, the matter is settled in one of the central divisions, according to which technical field the patent falls under.

⁵¹ Commission (2007), p. 9.

⁵² Commission (2007), p. 16.

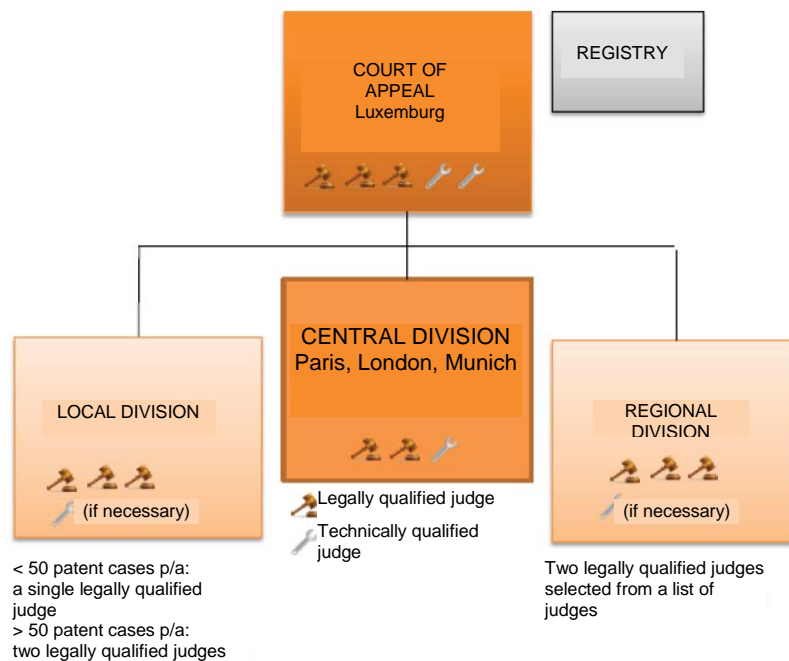
The centralised appeals process also intends to ensure the unity of the legal system. The UPC court of appeal is located in Luxembourg.

At the initial stage the court structure provides some choices of court. The rulings may be affected, say, by language issues. Someone may come to see differences between the divisions also in terms of favouritism towards the proprietor of the patent or the infringer. Therefore the new court system may also include some elements of forum shopping.⁵³

5.2 Court structure

Kommentti [T1]:

Kaaviosta osa tekstistä puuttuu



The Unified Patent Court is composed of a decentralised Court of First Instance, a centralised Court of Appeals and the Registry. The Court of First Instance consists of a Central Division and Local and Regional divisions.

The Central Division has its seat in Paris, and it has subdivisions in London and Munich. London office deals with issues related to the chemical (including pharmaceuticals) and metallurgical sector or perishable goods, the Munich office deals with issues related to mechanical engineering. Other matters (for example, relating to patents in the telecommunications sector) are dealt with in Paris.

A Local Division (or several if necessary) may be established in a Member State. This Member State shall designate the place of operations and organise its facilities. Two or more Member States may also establish a Regional Division, in which case those Member States designate the Division's place of operations and arrange its facilities. The Regional Division may hold sessions in other locations than its place of operations.

⁵³ Reduction of forum shopping related to the current system has been one of UPC's aims. Cremers (2013), page 2.

The Member State is not required to set up a Local Division or to be a member of Regional Divisions. In such cases, trials for these states would take place in the appropriate Central Division.⁵⁴

The Court judges are citizens of the Member States of the Agreement. Judges of the Court of Justice may be full-time or part-time, either holding legal qualifications or technical qualifications. The judge may be appointed in a particular division. All the judges are included in UPC's pool of judges. Court compositions are multi-national. Local and Regional Division compositions are supplemented appointing judges for them from the pool of judges.

In this set-up, the Court of First Instance is composed of three judges in principle. The Central Division is composed of two legally qualified judges who are nationals of Member States, and one judge from a pool of qualified technical judges, who has the qualifications and experience in the field of technology. However, European Patent Office trials must have at least three legally qualified judges who are nationals of the Member States of the Agreement.

The composition of the Local Division is dependent on how many patent cases are initiated every year. If there are fewer than 50 actions instituted in a year, the composition must have a single legally qualified judge,

who is a citizen of the Member State in question, and two judges who are not citizens of the Member State in question. If there are over 50 cases each year, the composition must include two legally qualified judges from the Member State in question and one judge appointed from the pool of judges.

It currently looks like Finland will have its own Local Division, if Finland ratifies the UPC Agreement. Presumably, the Finnish Local Division would have a Finnish judge and two judges assigned from the pool of judges.

The Regional Division would be composed of two legally qualified judges from the list of regionally elected judges, who are nationals of the Member States in question, and one legally qualified judge from a pool of judges, who is not a citizen of the countries concerned.

On the request of a party, an additional technically qualified judge can be appointed. If a Local or Regional Division deals with both an infringement action and a revocation counterclaim,

FINLAND AND UPC

If Finland ratifies the UPC agreement, it is likely that a local division of the first instance would be established in conjunction with Helsinki Market Court. In this case, unitary and European patent disputes would also be dealt with in Finland.

This would mainly apply to violations that occur in Finland. Also, an infringement by another Finnish operator that occurred elsewhere in the UPC area could be dealt with in the Finnish Local Division. This way the Finnish company could possibly obtain a UPC-wide injunction against the infringer in Finland.

If the Finnish company carries out business in other UPC countries, it can itself be sued in Local Divisions in other parts of the UPC; This could of course also happen regardless of whether Finland ratifies the agreement or not.

Direct revocating actions would always be brought in at UPC's Central Division. Counterclaims for revocation brought in connection with an infringement action, however, would be treated in the same division as the infringement action.

If Finland does not ratify the UPC Agreement, the jurisdiction of a new court located outside of Finland on the injunction or revocation actions would not extend to Finland. If it were a unitary patent case, it would not be valid in Finland and it could therefore not be infringed in Finland. If the same invention was patented in Finland specifically as a European or a national patent, the dispute should be resolved separately at the Finnish Market Court.

⁵⁴ Final decisions on all of the Local and Regional Divisions and their locations has not yet been made. At the end of 2013, Finland decided to prepare for setting up its own Local Division in connection with the Market Court. Discussions between The Nordic and Baltic countries had resulted in a diversified Regional Division model in which the sole language would be English. Sessions would be held in different countries of the Division. Finland considered the model as problematic. Huhtala (2014), p. 35. After this, Sweden has agreed with the Baltic States to establish a common Regional Division in Stockholm. Due to constitutional reasons, Denmark will hold a referendum in May on the UPC Agreement ratification. If the ratification is approved by the referendum, Denmark has announced the establishment of their own Local Division.

the Division must request for the president of the Court of First Instance to appoint a technically qualified judge from the pool of judges

The Luxembourg-based Court of Appeal's multinational configuration consists of five judges. Three of these are legally trained judges who are citizens of different Contracting Member States, and two are technically qualified judges with qualifications and experience in the relevant field of technology. The President of The Court of Appeal appoints judges possessing the technical qualifications from the pool of judges.

If necessary, the UPC has an obligation to request for a preliminary ruling from the Court of Justice of the European Union on the interpretation of the law.⁵⁵

An Arbitration and Mediation Centre will also be established for patent dispute conciliation and arbitration procedure under UPC jurisdiction, the offices of which will be in Ljubljana, Slovenia, and Lisbon, Portugal. The judges will be trained in Budapest, Hungary.

5.3 Court Jurisdiction and Choice of Court

UPC has exclusive jurisdiction over unitary patents, and supplementary protection certificates (promulgated in UPC Agreement States) granted for products protected by the patent, traditional European patents and European patent applications relating to civil matters. These issues include:

- Actual or threatened infringements of patents and supplementary protection certificates;
- actions to establish that there was no infringement;
- provisional and protective measures, as well as prohibitions;
- the revocation proceedings;
- revocation of counter-claim proceedings;
- actions for damages or compensation;;
- actions for compensation for licences on the basis of Article 8 of Regulation (EU) No 257/2912; together with
- actions concerning decisions of the the European Patent Office carrying out administrative tasks

The parties may agree to bring an action forward in their chosen Division, including the Central Division. Actions for revocation shall be filed in the Central Division, including claims to establish that the infringement did not occur. Other actions are brought at the a Local or Regional Division either depending on where the imminent infringement that has occurred or may occur, or based on which country the defendant is domiciled, or if there are several defendants, based on the domicile of one of the defendants, if it is within the UPC agreement area. If the contracting member state in question does not have a Local Division and it is not a member of a Regional Division, actions are brought before the Central Division.

If the action is already pending before the Court of First Instance, another action brought by the same parties on the same patent must be brought in the same Division

⁵⁵ This may only apply to biotechnology patents, supplementary protection certificates and court location queries, for which EU legislation does not exist. Patent infringement statutes applied by the UPC have been included in the UPC Agreement, instead of in the unitary patent regulation with the intention that these issues would not be solved in the European Union's Court of Justice.

If an infringement action is pending before a regional division and the infringement has occurred in the territories of three or more regional divisions, the Regional Division will transfer the action to the Central Division at the defendant's request.

A counterclaim for revocation may be brought in conjunction with the infringement action. In this case, the regional division can continue the processing of both actions or transfer the counterclaim to be processed by the central division, in which case the infringement action may be suspended or proceeded. With the agreement of the parties, the whole matter can be transferred to the Central Division.

If an action for declaration of non-infringement has been brought in the Central Division and an infringement action between the same parties is brought before a local or regional division within three months, an action pending before the central division shall be stayed.

The transitional period brings about exceptions to the UPC's powers in relation to European patents. During the seven-year transitional period, the European patent infringement or revocation action may still be brought in the national courts or in other competent national authorities instead of the UPC.

It should be noted that the European patent revocation action may be brought in the UPC, even if the patent in infringement litigation had already begun before a national court. This can be avoided by excluding the Unified Patent Court's jurisdiction over the patent in question (opt-out), before anyone brings an action for the patent at the UPC.

The legal effect of the unitary patent rulings extends to all the member states that have ratified the UPC Convention at the time of registration of the patent in question. The UPC's European patent ruling extends to the UPC Contracting Member States where the European patent has been validated.

WHAT IS BIFURCATION?

In most EU Member States, a patent infringement actions and revocation action raised as a counterclaim are dealt with during the same proceedings. In some countries, such as Germany, Austria, Hungary, the Czech Republic, Poland, Romania and Slovakia, the revocation action is processed in a separate trial in another jurisdiction. This can lead to the fact that the first court finds that the defendant infringed the patent and another court finds this invalid later, in which case no infringement tool place first in the first place.

Such separation of actions is often called bifurcation. The idea behind it is that a granted patent is presumed valid, so a ruling for their protection can be rendered as quickly as possible.

In a spirit of compromise the UPC wishes to maintain the characteristics of the two systems: bifurcation of the counterclaim for revocation to the central division is possible should the local or regional divisions already support this. This possibility is also perceived as a threat in many countries in which the bifurcation has not been part of the court proceeding.

UPC COURT EXPENSES

Initially, one of the key objectives of the reform of the judicial system was to estimate the cost incurred by patent litigation that may curb SMEs and individual inventors' willingness to patent. According to The European Commission, the new system would reduce costs because it would reduce duplication of proceedings over the same patent in several EU countries.

UPC is intended to eventually be self-financed. The overall cost will be covered by the court fees, which will consist of fixed charges and estimate-based contributions. The level of contributions has not yet been established. The assessment of the total costs of the Court of Justice is difficult because of the estimation of the amount of court cases in advance is difficult.

In the Commission's preliminary estimates for the year 2011, three different scenarios were presented to determine the court fees: for example, the fixed rate for the infringement action in the low court fee scenario was EUR 3,000, an average fees scenario it was EUR 6,000 and in the high fees scenario it was EUR 12,000. UPC Agreement reserved the right to grant relief to SMEs, among others. Yet there is no information as to what these might be. In addition, in UPC's case it has not yet been decided what would be reasonable legal costs payable by the losing party.

In Finland, the court fees are small compared to this, EUR 244 in the Market Court and the Supreme Court. Relatively big court's fees usually only form a small part of the total cost of patent litigation. In addition to court fees the costs consist of, inter alia, lawyers', European Patent Attorneys', patent lawyers' and experts' fees, as well as the costs of technical studies. If the process takes place in a foreign court, there will also be translation costs and travel expenses.

If Finnish companies' patent litigation cases are processed in the UPC instead of a Finnish national court, the costs would most likely be higher already based on the court fees. If the proceedings took place in a Local Division in Finland, the costs incurred for Finnish companies are likely to be lower than if the trial took place in a division located in another country.

According to the Commission over 90 per cent of the Community's patent litigation takes place in four Member States (Germany, France, the United Kingdom and the Netherlands). The Commission's 2006 research shows that in countries cheaper than the UK; in Germany, France and the Netherlands, the average costs were in the EUR 50,000-200,000 bracket in the first instance and EUR 40,000 to 150,000 in the second instance and EUR 250,000 for a disputed subject matter.

Also in Finland, the range of costs is broad, for example, the costs can be up to EUR 50,000 to 500,000 at the first stage.

The effectiveness of the court and the length of the trial period also impact the total costs of UPC patent litigation. The level of perceived risk in relation to UPC's court fees, can also affect the quality of judicial decisions (predictability and legal certainty) and to the strength of the patent.

5.4 Court language

In the *local or regional divisions* the court language is one of the official languages of the European Union, which is one or several of the official languages stated by the regional division member states. The contracting Member States may also designate one or more of the EPO official languages (English, German, and French) as the division's language. Possible languages of the Finnish local division would be Finnish, Swedish and English.⁵⁶

⁵⁶ Among other things, the UPC's Rules of Procedure will affect the language in which the trial will take place at the first stage in the end. The final wording may, in some cases, have extensive practical consequences. The Rules of Procedure may grant power to dictate rules for the choice of court proceedings language to such division that has listed several court languages. Alternatively this could be given to the claimant, for example.

The parties may also agree that the language used is the language in which the patent has been granted. This requires that competent panel approves it. If the language selected in this way is not accepted, the parties may request that the matter is dealt with by the central division.

The language in which the patent is granted, may be chosen by the executive assembly for practicality and fairness reasons, if it so decides. This requires the consent of the parties. Taking the same reasons and all other relevant factors into account, this may be the decision also based on some other party's request. In such a case, the President of the court assesses the need for special translation and interpretation arrangements.

The Central division's court language is always the language in which the patent concerned was granted.⁵⁷

If revocation counterclaim filed in the local or regional division is transferred to the central division, if a revocation action has been filed in the central division before the infringement action was brought in front of the local or regional division, it could be that the parties would have to deal with court proceedings in different divisions in two different languages.

The language of The Court of Appeal is the language used in the Court of First Instance. The parties may also agree that the language used is the language in which the patent was granted. In exceptional cases, the Court of Appeal may, with the approval by the parties, decide that the language of the proceedings is some other official language of the Member States.

With regards to actions brought in the central division, the defendant has the right to request, where appropriate, translations of the relevant documents in the official languages of the Member State where the defendant has its registered office, principal place of business or place of business.

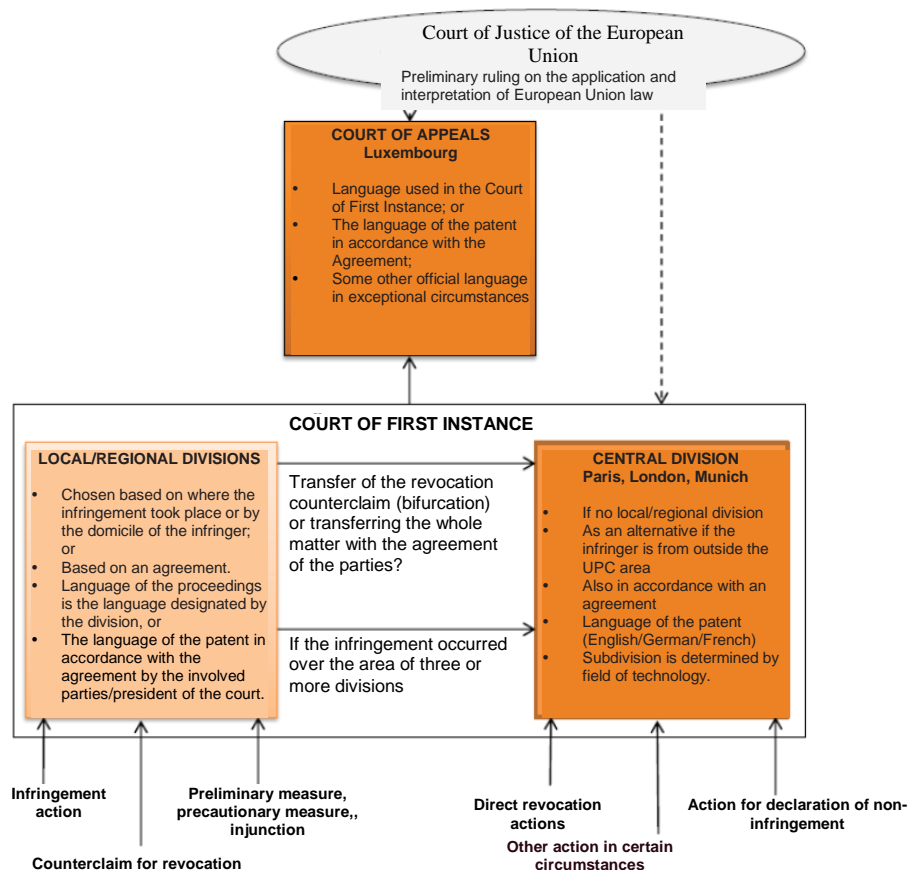
At the request of a party, to the extent that it is considered appropriate, the Court of First Instance and the Court of Appeal shall provide interpretation services at the hearing.

In accordance with the UPC Agreement, the court may dispense with translation requirements in so far as it is deemed appropriate.

Translation arrangements for the unitary patent are outlined in the Council Regulation (EU) No 1260/ 2012. In accordance with Article 4, in the case of an alleged infringement of a unitary patent, the patentee shall, at the request and choice of the alleged infringer, provide a full translation of the unitary patent either in an official language of the Member State in which the alleged infringement occurred or in which the alleged infringer is domiciled. A full translation of the patent into the language of the Court proceedings must be submitted at the Court's request. The patentee is responsible for the translation incurred due to the above.

⁵⁷ In this scenario, 75 per cent of central division's court cases would most likely be in English, 20 per cent in German and five per cent in French. Tumbridge (2014), p. 60.

UPC location and language



5.5 Arrangements during transitional period and opt-out

As unitary patents will in addition to the traditional European patents fall under UPC's jurisdiction, the agreement includes UPC Agreement transitional period arrangements. The transitional period arrangements do not apply to unitary patents.

During the seven-year transition period, European patent infringement or revocation claims may continue to be raised at national courts or at other competent national authorities. If there was no transition period, such European patentees who were not aware of the system when applying for a patent would inadvertently fall under UPC jurisdiction. If they had been aware, they may then have chosen national patent protection instead of the European patent. The transition period, however, also applies to European patents that have been applied for during the transition period.⁵⁸

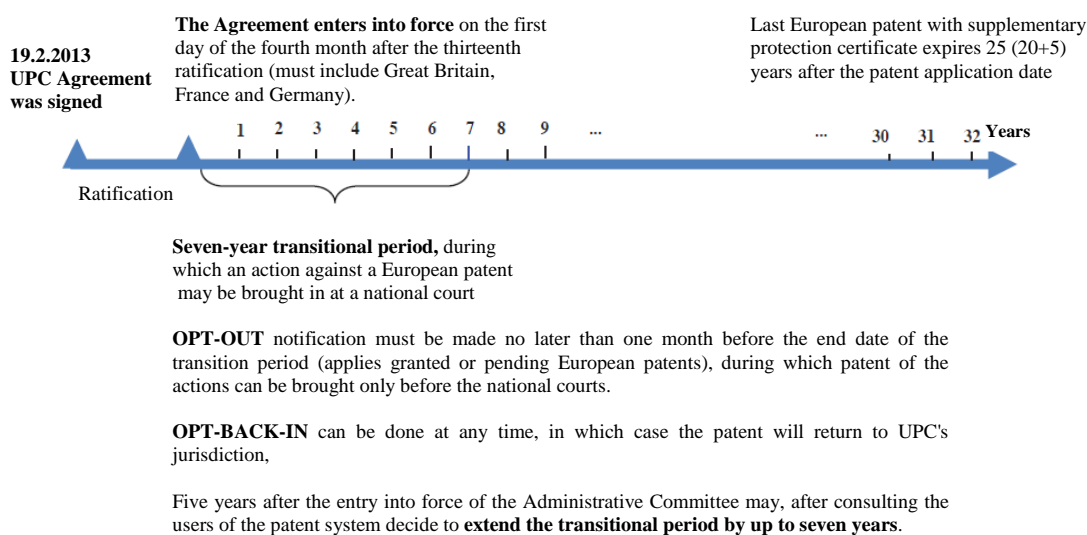
Therefore UPC and national courts have concurrent jurisdiction over traditional European patents during the transition period. The parties are then able to choose whether to file infringement action or revocation action at the UPC at or at a national court that has the jurisdiction. Within this transition period's framework, a European patentee can therefore not completely avoid UPC's jurisdiction over patents.

⁵⁸ Callens-Granata (2013), p. 14 %

During the transitional period European patentee or applicant has, however, the option of being excluded (opt-out) from UPC's jurisdiction entirely for the duration of the patent's validity. Opt-out announcement must be filed at the Registry no later than one month before the end of the transition period.⁵⁹ Opt-out is not possible, if there is already a claim against the patent at the UPC. As for the unitary patent, UPC's jurisdiction cannot be ruled out.

Opt-out can be cancelled at any time during the validity term of the patent, provided that there are no claims against the patent or a patent application brought before a national court.

It is anticipated that during the first few years most of the patentees will withdraw their patents from UPC jurisdiction, especially when they are able to withdraw their decisions at any time.



5.6 Strategic options for a company

5.6.1 Opt-out or not?

Patenting Finnish companies operating in the EU region should consider their operational strategies before the new system comes into effect (this is expected to take place no earlier than the end of 2015). If a company does nothing, the company's European patents will automatically fall under UPC's jurisdiction. In such a case, a competitor may challenge the validity of the European patent by raising revocation action centrally through the UPC. The court's ruling will come into effect at the same time in all those UPC Member States in which the European patent is in force. This can of course also be in the interest of the company, if the action is unsuccessful. Then the validity of the patent will be confirmed at the same time throughout the region. Some companies may, however, look for their "dormant" competitors' weak patents to attack against them as soon as the system enters into force.⁶⁰

⁵⁹ There will be a fee for opting out. The total amount of the contribution at the time of writing has not yet been decided. This may of course have guiding effect in terms of the use of opt-outs.

⁶⁰ As the matters stands, the EPO will be hold prior records with which the opt-out decision may notified for registration before the new court system takes effect. Decisions made during the transition period and the notification of the decision and it being registered on the other hand may have some sort of delay.

The company must decide whether it wants to opt-out from UPC's jurisdiction for its European patents. The easiest way to make one decision (opt-in or opt-out) is for the entire European patent portfolio. The other end of the spectrum is the option to consider each patent separately. If you have a number of patents, this is an expensive strategy. In practice, many companies are most likely to elect a strategy between these two extremes at least in the longer term, for example, opt-out the majority of their patents, but to keep certain carefully selected patents in the UPC system, or vice versa. Similarly, for new patents the company must consider whether to patent its inventions as traditional European patents (opt-out or opt-in) or as new unitary patents. The company can also continue to use national patents.

If the company considers its patents to be particularly strong, it may be useful to keep them under UPC jurisdiction. In this case, it is possible to obtain most extensive injunctions against patent infringing competitors. However, the company may initially feel suspicious of the new judicial systems and, therefore, opt-out all its patents.

It does, however, during the life of a patent, have one opportunity to bring back to the patent under UPC's jurisdiction (opt-back-in). Here is how it can be done if no-one has filed a claim against any of the patents before any national court, in which the European patent is in force.

If the patent's validity of any commercially important product of the company is in doubt, it may be profitable for it to take the opportunity to opt-out this patent. In this case, the company can avoid the risk that such an important patent would be annulled simultaneously in all UPC Member States, in which the European patent is in force.

In the early days of the UPC the choices are likely to be affected by the uncertainty over Court practice. Smyth (2013) believes that the "crown jewels" of the patent portfolio can be considered so valuable that they are afraid leave them at the mercy of a yet untried Court, and that is why they would be opted out. As for "bulk patents" the unitary patent may be too expensive and they would be kept as European patents but under UPC's jurisdiction at the same. For patents falling somewhere between these scenarios, the patentees might try to venture into trialling the new unitary patent, according to Smyth.

A revocation claimant may have more opportunities to choose the place of the trial at UPC, since the claim may be filed at either in place of infringement or at the division based on the infringer's domicile. The selection may also be affected by the language of the proceedings or the procedures followed by the division in question. Local or regional divisions may, for example, transfer an revocation counterclaim filed during infringement action to the central division (the so-called bifurcation), which would then choose whether to deal with the infringement action or not, which would then be dealt with before processing the revocation. It is expected that some of the divisions are going to use this opportunity. This may be an advantage to the claimant, who is not sure of the validity of their patents. It is possible that a division sympathetic to the patentee rules the case in favour of the patentee and orders an injunction to the infringer. After many years, the UPC's central division, in turn, gives a ruling, based on which the disputed patent is then invalid.

REVOCATION AT UPC

The chance brought about by the UPC to get a European patent annulled by one centralised treatment is not in itself new.

European patent or unitary patent revocation can be applied for through administrative routes at the EPO nine months after the public notification date of the grant of the patent.

At UPC an revocation action may be raised at any time after the grant of a patent without a time limit and the validity of the patent is solved once and for all UPC countries.

Revocation actions can be raised at the UPC, regardless of whether the claimant has applied for the invalidation of the patent through EPO or not. The party must, however, inform the court of opposition proceedings pending at the EPO. If EPO can be expected to give a quick decision, the court may halt its proceedings.

Opposition proceedings at EPO are usually cheaper than court proceedings. The disadvantage is the long processing time; the handling usually takes at least three years. Therefore revocation action in the UPC can prove to be an attractive alternative to the EPO opposition proceedings.

In worst case scenario, a company that sustained a loss in their first trial no longer exists at this point.

The patentee's opposing party has less scope for strategic choices. The patentee's opponent can clear the way by filing an revocation case against a patent that is limiting their own actions at UPC's central division. It should do so, especially when the patent's validity is questionable. If the patent is likely to be valid, but the company believes that its conduct does not infringe any patent, it can raise a claim at the central division for a declaration that it does not infringe the patent. If possible, this should be done before enter your product into the market. If the patentee, in turn, can bring an action for infringement at a local or a regional division, or at the central division, by doing so it may possibly delay the initial processing of claims.

An alternative for the patentee's competitor could be entering the market in an area where the UPC's division does not bifurcate. In this case, the patentee's infringement action and the other party's counterclaims for revocation would be processed simultaneously.⁶¹

The patentee's counterparty has the right to bring an action against a European patent thus preventing the patentee from changing (opt-out or opt-back-in) UPC's jurisdiction over the patent. This can prevent the patentee who opted out their European patent from bringing their patent back under UPC's jurisdiction, for example, in the hope of a wide scope for an injunction.

5.6.2 Forum shopping at the UPC

One of the perceived weaknesses of the current European patents litigation system is its fragmentation. Infringement and revocation claims must be filed separately in each country in which the patent has been brought into force, and in which the alleged infringement occurred or patent is to be annulled. In practice, this often leads to forum shopping, that is, that the patentee brings an action in the country in which it considers the opportunity to win the greatest possible and the sanctions for infringement to be the most severe. After the ruling, the parties may reach an agreement with regards to other states, or then continue court proceedings in the other countries.⁶²

While the UPC is a unified court, the first stage is divided into several local and regional divisions. In some situations, the UPC can offer the patentee a wider range of choice than the current system in deciding where to bring an action against the alleged infringer. This allowed by Article 33 (1) of the UPC Agreement, according to which the action may be brought in the division of the area where the infringement occurred or may occur, or in which one of the defendants is domiciled or headquartered.

DIFFERENT STRATEGIES IN DIFFERENT INDUSTRIES

Patenting practices and implementation of strategies vary between different industries.

For example, pharmaceutical industry patents are relatively low in number, but on average they are more valuable. The likelihood of litigation against them is higher than average (0.3 %), and they are subject to legal cases in older age in general. In the ICT sector there are more patents, but the individual patents are less valuable. With them, the likelihood of litigation is lower (0.14 %). (Zeebroeck - Graham 2011, p 27)

In industries that take advantage of economies of scale and standardisation, such as the ICT sector, it is often enough to control the European market if competitors can be prevented from operating in few or maybe even just one major country through patenting. Since production of generic copy drugs is cheap and entry into market is thus easy, it is important for the pharmaceutical industry, in turn, to patent comprehensively in as many countries as possible.

⁶¹ See The IPKat 12.3.2013: Bifurcation of European patent litigation: a practitioners' perspective.

⁶² See Norrgård (2009), p. 56.

This can be useful in terms of forum shopping, if the divisions' approaches differ from one another.⁶³ In the UPC the claimant does not need to consider whether the breach was sufficiently serious in terms of judicial activities in a particular division's area, but the claimant may choose from options in accordance with Article 33 (1), a more receptive division for themselves. Therefore it may suffice as an alleged infringement to offer the product for sale through the online store; the division's decision however, applies to the entire area of the UPC.

Transfer of an revocation action from being dealt with a division to be dealt with by the central division, or Bifurcation, in the UPC, has been seen as a possible practice that local or central divisions could adopt to stand out from other divisions and to attract certain types of patentees to go forum-shopping. Patentee raising an action for infringement could then be able to get the infringement action dealt with before the relevant revocation counterclaim. Other issues, which are at the discretion of the court, include the presentation and submission of documents, as well as the use of experts and witnesses. UPC's popularity among patentees can thus be influenced by many practical issues such as how easily the court may give protection rulings.⁶⁴

If Finland ratifies the UPC Agreement, a Finnish company could also see the opportunity to bring an action against an international infringer at a local Finnish division as a favourable alternative. For example, the language of the proceedings could be Finnish.⁶⁵ In addition; the Finnish company would use local agents and save in travel expenses, among other.

Although the differences between various courts in the current patent court system are certainly higher than they will be in the UPC, at UPC "forum shopping" opportunities combined with extensive enforceability, form a combination that some have experienced as a specific threat. An example of this is a letter sent by the coalition of international companies to different EU institutions. In practice, large companies expressed fears that such a possibility would create the potential for abuse and could attract "patent trolls". The fear is based on the idea that the weak patentees would have too strong weapons available.

At UPC, however, there are elements speaking against the development of forum shopping. The court is based upon common rules. In addition, all of the judges will receive common training. Two of the three judges at the divisions are local; it may of course be possible that the local magistrates' common background and interests lead to the selection of a particular mode of operation. Bifurcation of suits is currently in use in Germany, for example. Even so, German judges have given statements suggesting bifurcation would not be quite freely used in the UPC.⁶⁶ In addition, the UPC's centralised complaint stage would over a longer period of time be likely to become even out the differences between the practices of various divisions.

⁶³ The various divisions, for example, could begin to compete for litigation by seeking to be profiled in as favourable to patentees. This could be influenced by the fact that in its composition the division has two local judges in the event that the division deals with over 50 cases a year.

⁶⁴ Many of these issues will be resolved later on, for example, with the yet unconfirmed UPC's Rules of Procedure. In addition, time will tell how the UPC Agreement and the Rules of Procedure for the divisions will be used by the divisions. This may take several years after the system has started. Such factors, however, can significantly affect legal battles and strategies used in them.

⁶⁵ Language arrangements depend on UPC's Rules of Procedure, final version of which has not yet been prepared.

⁶⁶ See e.g. the Managing Intellectual Property 09/27/2913: The B Word Provokes UPC Angst in Munich.

ARE PATENT TROLLS GOING TO ATTACK?

The unified patent court system is designed to facilitate EU-wide regulatory procedures and enforcement measures to reduce their costs. This is feared to attract players who do not themselves make use of patented technology in their business activities, but instead aim to make financial gains with their patent portfolios through other means (Non-Practicing Entities NPE).

According to the Commission

The term "Patent troll" refers to patent owners (often investors who buy patents at an affordable price from failing businesses), that use their patent rights to intimidate companies using infringement actions and injunctions, and thus force them into financial settlements to avoid expensive litigation." (Commission 2007 , reference 31)

The patent troll phenomenon is perceived to be problematic especially in the United States. Harhoff (2009, p 49) lists factors that are considered to contribute to the phenomenon:

- high cost of litigation;
- cost-sharing rules (both parties are to bear their own costs);
- fees depending on the outcome of the trial (contingency fees) that encourage bringing forward legal proceedings;
- risk of high damages and treble damages of wilful infringement;
- favourable attitude towards patentees by U.S. courts;
- poor quality of precedent cases, which creates uncertainty about the scope of protection;
- general and broadly defined extension of patentability to computer programs and business models.

Harhoff respectively, gives the reasons as to why the patent troll phenomenon has not gained a foothold in Europe:

- legal costs are lower;
- distribution of these costs favours the winners;
- damages are not excessive;
- courts balance the rights between the parties;
- injunctions are not set automatically;
- despite some degree of weakening, patent research quality is much better than in the United States.

According to Harhoff's report, the risks of the patent troll phenomenon, however, should be taken seriously in the case of a unified patent court. According to the report, the then proposal would place emphasis on revocation, low-cost and prudent use of injunction orders against patent trolls.

However, big technology companies for example have opposed the new system, because of these patent trolls. According to them the 'forum shopping' possibility related to bifurcation, for example, among other things, brings opportunities to abuse the judicial system. Similarly, large companies are experiencing it as a threat that UPC area-wide injunctions would be imposed too easily. (See letter sent by international coalition of large companies to different EU institutions, 26.09.2013.)

CHECKLIST

1. *The new UPC Court will solve disputes relating to unitary patents, as well as traditional European patents.*
2. *A company should prepare for the transition period by considering future strategies already. If litigation in the UPC at first seems like too high a risk, European patents can be opted out from UPC jurisdiction during the transition period. They can then, if necessary, be transferred back under UPC jurisdiction.*
3. *The patentee holds a wide range of possibilities to choose in which UPC Division they wish to bring their infringement action. The alleged infringer does not have a choice.*

6. UPC AND COMPANY SCENARIOS

6.1 General information on patent litigation

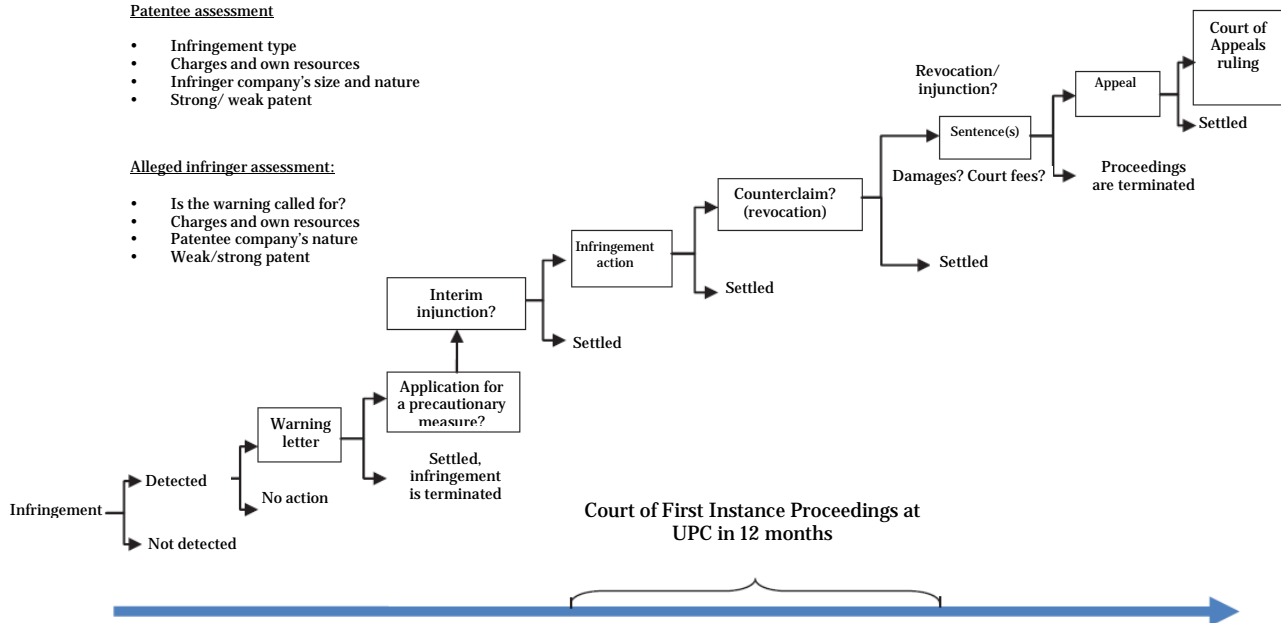
PATENT DISPUTE

Patentee assessment

- Infringement type
- Charges and own resources
- Infringer company's size and nature
- Strong/ weak patent

Alleged infringer assessment:

- Is the warning called for?
- Charges and own resources
- Patentee company's nature
- Weak/strong patent



A patent is an right to prohibit others. Without the consent of the patentee no one else may take advantage of the patented invention professionally. Also, the patentee's own right to exploit the invention may depend on another patentee's right to exclude others from exploiting the invention. If there is no approval for a patented invention's professional usage, it is a case of patent infringement. In order for the patentee to benefit from its patent in this situation, he must be ready to defend his patent against the infringer through the implementation of an injunction. This process can result in a patent trial, in which the Court will decide whether an infringement occurred and if so, what are the consequences.

Not all patent violations end up in the courts. Not all infringements are detected. In addition, the violation may be unintentional, and the infringer stops the infringing activity when this is pointed out to them. Even a deliberate infringer often stops their infringing activity once a warning letter is received. Patent litigation tends to be expensive, and the outcome isn't always certain in advance. As shown in the graph above, the matter can be settled - and is often settled - at several stages before the Court's ruling.⁶⁷

⁶⁷ The judicial system characteristics may affect the likelihood of a settlement. In a study published in 2013 in Germany, over 60 per cent of disputes in the courts ended up in a settlement, whereas in the UK the figure is only about 40 per cent. Cremers (2013), p 59. In the case of UPC, this may be affected, among other things, by the level at which the legal costs payable by the losing party will be set.

Only a small proportion of patents end up in a trial. In the Commission's study it has been estimated that the probability for European patent to end up in a trial is 0.24 per cent (1170/485 000 European patent litigation - excluding repeated trials in different countries – divided by the current number of European patents valid in at least one country in 2008).⁶⁸

According to the same study, there was an annual average of 23 patent litigations in Finland during the year. In Finland, an average of one fifth of litigation concerned European patents. According to this calculation, there were 4-5 patent litigations in Finland annually, which would be transferred to UPC, if Finland ratified the UPC Agreement. In 2008, there were about 33,000 valid European patents in Finland. Based on the metric used by the Commission (average of 4.5 annual European patent litigations divided by the number of patents granted by the EPO valid in Finland in 2008), the probability that the European patent will end up in litigation in any given year namely in Finland would be 0.014 per cent. (The probability of a European patent which is valid for eight years, of becoming subject to litigation in Finland is therefore 0.11 per cent.) For the patentee the likelihood of litigation increases also by the fact that litigation could also take place in some other country in which the patent has been put into force.

However, it is expected that European patent litigation would increase its share in Finland as well. In general, the number of patent litigation generally increases with increasing number of patents. Finland only joined the European Patent Convention in 1996, so proceedings concerning European patents in Finland are still a relatively new issue. All in all, the patent litigation probability in Finland, calculated as described above, is about 0.05 per cent. If you only take into account litigation proceedings over national patents and national patent granted by the the Finnish Patent Office, patent litigation probability is around 0.13 per cent in Finland.

European Commission calculated that under the current system 10 per cent of patent litigation is repeated in another jurisdiction. This would mean that out of all European patent litigation in Finland an estimated one case was repeated in a court of another State within two years.

All in all patent litigations are rare. This is probably largely due to the fact, that they are expensive and time-consuming. That's why patents lead to litigation mainly when the stakes are high enough in relation to the risk of legal costs. Patents tend to produce bring most returns towards the end its life cycle. If the patent does not yield enough returns, it is usually allowed to expire earlier. Thus, the trial subjects are usually valuable and older patents.⁶⁹ In Finland, European patents of proceedings often relate to drug patents.

Patent litigation probability varies according to, among other things, the technology sector. In the pharmaceutical industry, the likelihood of patent litigation per patent in Europe is about twice that of the ICT sector in comparison. There are major differences also between companies within the same sector.⁷⁰ For example, a large patent portfolio can improve the negotiating position of the company and thus rather prevent a single patent being disputed, rather than exposing it. Also the quality of the patent affects its sensitivity to litigation. More experienced companies may file higher quality patent applications, and they can therefore avoid patent litigation.⁷¹ The nature of patent litigation and practices vary significantly in the current system between in Europe.⁷²

Finland's decision as regard ratification of the UPC Agreement will impact patent litigation in general as follows:

⁶⁸ Preliminary Findings of DG Internal Market and Services: Study on the Caseload and financing of the Unified Patent Court. 7.11.2011.

⁶⁹ In Zeebroeck and Graham's (2011, p. 27), study, pharmaceutical and biotechnology sectors' patents subject to litigation were, on average aged 17.4 years. The average of various sectors was 14.9 years.

⁷⁰ Zeebroeck–Graham (2011), p. 27.

⁷¹ Cohen–Merrill (2003), p. 14 %

⁷² Zeebroeck–Graham (2011), p. 19.

Patent	Finland ratifies	Finland doesnot ratify
European patent	<p>European patent related proceedings (currently about 4-5 annually) will move from the Finnish national courts to the UPC. Finland is likely to have a local division, whose decision would be enforceable throughout the UPC area. An action concerning Finland could also be raised in a division abroad however.</p> <p>Revocation proceedings over a current European patent would not need to be tried separately in Finland.</p> <p>The above-mentioned does not apply to European patents opted out during the transition period.</p>	<p>The Finnish part of a European patent will be tried in Finland, as has been the case so far (of these cases, maybe one case in two years is repeated in another court).</p>
Unitary patent	<p>All future unitary patents are valid in Finland.</p> <p>Unitary patent infringement taking place in Finland may be brought to a local UPC division located in Finland. A ruling made in any of the UPC's divisions is enforceable throughout the UPC area, including Finland.</p>	<p>Unitary patents are not valid in Finland and they cannot be infringed in Finland either.</p>

HOW TO PROTECT YOURSELF AGAINST INFRINGEMENT RISK?

Increase in the number of valid patents increases infringement risk in patenting sectors. A company can reduce the risk of infringement by increasing the monitoring of their competitors' patents. At the same time, this activity can boost the company's own product development, as the company can prevent duplication of competitors' product development.

Awareness of the risk of patent infringement and actions based on this knowledge are the most important ways to avoid patent litigation. After identifying a risk, an infringement can be avoided by, for example, acquiring a license for the technology, if one is available. The company may also use or develop alternative technologies.

The company can also protect themselves from intellectual property risks with insurance. Traditional business insurance policies do not cover such risks. Instead, IPR insurance, for example, covers legal costs incurred from patent infringement lawsuits and compensation obligations.

The scope of IPR policy will be agreed for each individual case. That's why exploiting the insurance requires careful analysis of potential risks.

The potential for exploitation of insurance is often also limited by the fact that typically there is no insurance cover that would cover for intentionally harm or harm caused by gross negligence. Intent or negligence, in turn, can be difficult questions to define in the case of patent infringement.

Often, small businesses have limited resources. Risks associated with utilisation of the company's patent are best prevented by using a good patent attorney to help with the patent process.

6.2 Case scenarios

6.2.1 Case 1 (infringement/claimant)

At fairly large Finnish pharmaceutical company L has existing European patents valid in a number of European countries. The company finds out that French pharmaceutical manufacturer G of generic (i.e., the legitimate copy-) medicinal products has brought a number of products infringing its patents to the market, at least in Romania and Italy. Romania and Italy have both ratified the UPC Agreement. Italy is not included in unitary patent system.

As pharmaceutical companies are largely expected to do, L has opted out from UPC's jurisdiction in terms of all of its patents. Thus L has avoided the risk of a competitor raising an revocation action at the UPC, which, if successful, could bring down a valuable patent, in all UPC Member States at the same time. Once opted out, the European patent corresponds to the current European patent, and the UPC Agreement does not apply to it.

L could now bring an action against G in either Romania or Italy or then in both countries. Since the UPC's jurisdiction is excluded from the patents, actions should be brought in to national courts with only national effect as in the past. Although the L would win the cases, G could continue sales of the infringing pharmaceutical product in other European countries.

L is considering its options. The company assesses it has a strong patent. Therefore it decides to withdraw the opt-out decision and return the patent under UPC's jurisdiction (the opt-back-in). This is possible when there is not yet a action against the patent before a national court. In this case, the matter will be settled at the UPC court in one trial with jurisdiction over all UPC member countries.

L may now bring an action in the division in which the infringement occurred, as in either in Eastern Europe's regional division or in Italy's local division.⁷³ In addition, the company may bring an action against the infringer in the infringer's local division, which in this case is France. In their choice of court L may take into account the language of proceedings. The division can also have a variety of procedural practices. The division may, for example, transfer the revocation counterclaim often brought by the infringer to a central division and still continue with the infringement action proceedings. This would be useful for L, because this would give them more time for exclusive rights, even if the patent should subsequently be annulled by the central division.

The situation remains similar after the transition period, if the patent has been opted out during the transition period. Instead, disputes over new European patents applied for after the transition period and new unitary patents applied for under the UPC system would be tried centrally at the UPC. In this case, the patentee will suffer a centralised risk of revocation in UPC member countries, other than in the case of national patents.

Finland's UPC Agreement ratification decision would not impact L's operating strategy in this scenario. If Finland ratified the UPC Agreement, the decision would, however, affect whether a UPC ruling would also apply to Finland. If Finland does not ratify the Agreement, this is not the case and L and would, if necessary, need to go through litigation proceeding separately in Finland.

Potential court litigation scenarios are presented in a table:

⁷³ These are assumption since division decisions by the Agreement member states had not yet been confirmed at the time of writing.

	Patent	Court	Potential scenarios (Finnish patentee, infringement trial defendant)
During the transition period	opt-out ⁷⁴	Romany, Italy	<ul style="list-style-type: none"> action to be brought in national courts with national jurisdiction may have to go to court twice over the same matter
	no opt-out / opt-back-in	UPC: Eastern Europe / Italy / France	<ul style="list-style-type: none"> opt-back-in before the action is brought possibility for forum shopping – possibility to choose based on infringement location or infringer's domicile (decision made based on e.g. language, counterclaim bifurcation?) All UPC member states, in which the patent is valid (Finland based on whether Finland has ratified the Agreement) fall under jurisdiction
After the transition period	No possibility to opt-out	UPC: Eastern Europe / Italy / France	<ul style="list-style-type: none"> no opt-out-option forum shopping possibility (e.g. Language, bifurcation of the counterclaim?) All UPC member states, in which the patent is valid (Finland based on whether Finland has ratified the Agreement) fall under jurisdiction

Conclusion: the patentee has most strategic options available with European patents that fall under the transition period's scope. After the transition period, when making patenting decisions, the company must weigh up the benefits brought about by the extensive injunction possibility and the potential disadvantages brought about by the potential extensive revocation.

6.2.2 Case 2 (infringement/defendant)

A large Finnish chemical and paper industry company P has factories in Finland and Poland. The company exports products manufactured in its factories all over Europe and also outside Europe. A foreign company U wishes to bring an infringement action against the company on violation of their own patent and they are going to, if possible, to apply for an interim injunction (precautionary measure) against P's Finnish factory's production.

When it is a question of a **European patent** also valid in Finland:

- (i) **If Finland has ratified the UPC Agreement:** during the transition period a) opt-in, b)opt-out

a) Opt-in: The foreign company's European patent falls under UPC's jurisdiction. U may bring an action in the UPC based on the infringement of infringer's domicile. Since the Finnish company markets its products in a number of European countries, U is able to choose the most favourable UPC division for themselves from several options. It may, for example, choose a division that is known to dispatch the claimant's revocation action easily to the central division. This way it could have its own infringement action dealt with before the revocation action. If U's claim against P is successful, the injunction will be enforceable in all UPC Contracting Member States in which the patent in question is valid, at once.

⁷⁴ The scenarios presented in the table's opt-out section are potential possibilities and situations of the current situation.

⁷⁵ In the "after the transition period" section of the tables European patents opted out are not taken into consideration, even if the effects of the opt-out was valid for the whole life of the patent if necessary and therefore also for the time after the transition period. These opted out European patent's effect become apparent in the section "during the transition period".

In spite of this injunction, P may continue its operations in the countries outside the scope of the European patent. P could carry on with their operations in Poland, even if U's European patent was valid there. If P's revocation counterclaim is successful, U's patent is revoked in the entire UPC area in those countries in which the patent has been entered into force. If they so wish, U could bring an action in a national court on national grounds during the transition period. However, this would not prevent the Finnish company from filing an revocation action in UPC's central division.

- b) **Opt-out:** U has felt UPC is too risk-sensitive due to the extensive revocation possibility and has therefore opted out its patents. If it so wishes, it could transfer its patents to fall under UPC jurisdiction if no-one files a counterclaim before then at a national court. U feels, however, that a successful infringement action in Finland would limit P's operational opportunities significantly and it would not need to take the risk of extensive revocation of its patent. Therefore U needs to bring an action at a national court with national effects in such a state in which their European patent has been entered into force. If the claim filed by U is successful, P needs to discontinue its infringing operations in its Finnish factories. It may, however, continue its activities in Poland and in other countries. On the other hand, U may continue filing infringement actions in those countries in which its European patent is in force and in which P is infringing its patent.

As for European patents applied for after the transition period, U and P may operate in the UPC area in accordance with section a) only, without an opportunity to opt out and without the opportunity to bring an action at a national court.

- (ii) **If Finland has not ratified the UPC Agreement:** during the transition period
a) opt-in, b) opt-out

- a) **Opt-in:** The European patent falls under UPC's jurisdiction; Finland does not fall under it, however. If U wishes to file an infringement action at the UPC, it needs to file it based on such infringement location that is a UPC member state and in which its European patent has not been entered into force. In this case the jurisdiction does not extend to Finland. Since U wishes to have the injunction primarily valid in Finland, it needs to file the claim at a national Finnish court. P has the chance to file a revocation counterclaim, which will be dealt with in Finland in conjunction with the infringement action. It may also file a revocation counterclaim at the UPC central division. Finland would not fall under its jurisdiction, however. (The procedure would, however, prevent U from opting out its patent) Should U's infringement action be successful, P must discontinue its patent-infringing operations in Finland. P may continue its operations from Poland. U may file new infringement actions based in the infringement location, if its European patent is valid in the country where the infringement took place.
- a) **Opt-out:** Compare with section (i) with the exception that opt-in would not be of U's benefit, if it wishes the ruling to be enforceable in Finland.

As for patents applied for after the transition period, U and P may only operate in accordance with section a) without the opt-out opportunity.

	Patent	Court	Potential scenarios (Finnish company as the defendant)
Finland has ratified	opt-out	Finland (national)	<ul style="list-style-type: none"> The action must be brought before a national court with national jurisdiction May continue operations outside Finland even if sentenced in Finland
	no opt-out / opt-back-in	UPC (also national during the transition period)	<ul style="list-style-type: none"> During the transition the claimant may choose whether to bring the claim to a national court or to a UPC division based on infringement location All UPC member countries in which the patent is valid fall under jurisdiction on rulings made for UPC infringement actions and counterclaims (including Finland) Counterclaim bifurcation in the UPC? (may be of disadvantage to the defendant, e.g. extensive injunction may enter into force before the revocation counterclaim is processed)
Finland has not ratified	no opt-out / opt-back-in	National in Finland, UPC	<ul style="list-style-type: none"> UPC injunction does not extend to Finland Injunction for Finland must always be dealt with in a national Finnish Court Injunction for Finland must always be dealt with in a national Finnish Court [sic. repeated in source] If the patent has not been opted out, an revocation action may be brought before the UPC but with no effect in Finland

If it is a case of a **unitary patent**:

- (i) **If Finland has ratified the UPC Agreement:** Compare with (i) a) with the exception that UPC's jurisdiction extends to all UPC Agreement countries. In such a case an injunction enforced in a foreign UPC division would also be valid for the Finnish factory. Poland is not a member of the UPC, so the Finnish company would be able to continue its operations in Poland (operations in a UPC member country would be an infringement).
- (ii) **If Finland has not ratified the UPC Agreement:** U may only bring an action at the UPC based on where the infringement took place. P does not infringe U's unitary patent in Finland or in Poland. U's successful infringement action would prevent P from infringing the patent in the UPC member states.

Conclusion: In a juxtaposition such as the one in the example, a Finnish company would have more choices to act on its own benefit if Finland had not ratified the UPC Agreement. A threat for the entire UPC area is that the company's operations could be stopped for almost the entire Europe, even if the patent's validity was questionable.

6.2.3 Case 3 (revocation / defendant)

A Finnish SME T focused on mobile technology has protected its innovative technology carefully. T holds a European patent, the opposition period of which has expired. A foreign

competitor K decides to apply for revocation in a Court in order to use the same technology in France and in Germany, T's patent has been entered into force in Finland, France, Germany and Great Britain.

If Finnish company T has opted out its patents, the action taken is as before UPC. The foreign competitor must file the claim in a national court of a country in which T's European patent has been entered into force. In such a case, the Court's decision would only be valid in this country. If K wished to revoke the patent in more countries, K must bring an action in each country's national court separately. Even if K managed to revoke T's patent in Germany and France, T would still have exclusive rights for the technology in Finland and Great Britain.

If T has not opted out its patents during the transition period or once the transition period is over and the claim is for a European patent applied for after the transition period, K may bring an action at UPC's Central Division. If the claim is successful, T's patent is revoked in all the countries that have ratified the UPC Agreement and in which the European patent has been entered into force, at once. If Finland has ratified the UPC Agreement, the potential revocation would take effect in Finland, France, Germany and Great Britain. If Finland has not ratified the UPC Agreement, the patent is annulled in France, Germany and Great Britain but T maintains a exclusive rights for its technology in Finland.

	Patent	Court	Potential scenarios (Finnish company as the defendant)
Finland has ratified	opt-out	France, Germany	<ul style="list-style-type: none"> The action must be brought before a national court with national effect If the patent is revoked, the patent remains valid in Finland and Great Britain
	no opt-out / opt-back-in	UPC Central Division (or France, Germany during the transition period)	<ul style="list-style-type: none"> The ruling extends to all UPC Agreement countries in which the European patent is valid (including Finland) During the transitional period, the claim can also be brought to national courts with national jurisdiction
Finland has not ratified	no opt-out / opt-back-in	France, Germany	<ul style="list-style-type: none"> The claim must be brought before a national court with national effect The patent remains in force in Finland and Great Britain
	opt-out	UPC's Central Division	<ul style="list-style-type: none"> The ruling extends to all UPC Agreement countries in which the European patent is valid (including Finland) The patent remains valid in Finland

Conclusion: If a company cannot even partially opt out its patents from the UPC (the opt-out, or if Finland does not ratify the UPC Agreement UPC), the company may maintain its exclusive right to its technology in one area at least a little longer.

This way the company can be sued, however, for this same thing several times in different countries. If the patent's revocation at the UPC does not apply to Finland, the company retains the exclusive rights in Finland. The flip side is that the restriction of competition brought about by the same patent continues in Finland. Competitors operating in Finland will thus lose out. If a patent-protected product was aimed at consumers, Finnish consumers would be likely to have to pay a higher price for the product. Most likely, by the action the patent would also be revoked in Finland, where it is assumed that the UPC and the Finnish Market Court rulings are close to each other. However, this would incur unnecessary trouble and expenses for both parties.

6.2.4 Case 4 (infringement/defendant)

Finnish family-owned engineering company S operates in Finland as a component supplier for industry and also exports its products to Russia. S has no patents. S is startled to receive a letter from the U.S. Company Y, who holds a large patent portfolio. Y blames S for infringement of one of its patents. Y demands S to license the patent at a high price or, failing that, they will take the matter to court.

If the patent in question is a **European patent**:

- (i) **If Finland has ratified the UPC Agreement:** Y has considered that the UPC's deterrent effect is greater than the national court's and therefore it has not opted out its patent, which has been entered into force in several European countries, including Finland. This is how they could bring an action against S for patent infringement at UPC's Finnish Local Division. S must weigh the UPC trial risk and court costs against the risk of bargaining. In embarking on a court case, they would have the opportunity to bring counterclaims for revocation, especially if Y's patent seems weak. S is in a difficult situation, if it cannot afford to enforce its rights UPC level. Even seeking for advice means that the company will need to obtain external professional assistance. S must, for example, first determine whether Y's infringement action bears any truth.
- (ii) **If Finland has not ratified the UPC Agreement:** in this case it would be less likely that Y would be interested to threaten bringing an action to a national court. This would require, for example, hiring a local attorney and additional investments.

	Patent	Court	Potential scenarios (Finnish company as the infringement action defendant)
Finland has ratified	opt-out	Finland	<ul style="list-style-type: none"> The claim would need to be brought to a national court with national jurisdiction
	no opt-out / opt-back-in	UPC (or also Finland during the transitional period)	<ul style="list-style-type: none"> UPC rulings' jurisdiction extends to all UPC Agreement states in which the European patent is valid (including Finland) During the transitional period the claim could also be brought to a national court with national jurisdiction
Finland has not ratified	Compare opt-out	Finland	<ul style="list-style-type: none"> The claim would need to be brought to a national court with national jurisdiction

In the case of **unitary patents**:

- (i) **If Finland has ratified the UPC Agreement:** If it had been a question of a traditional European patent, Y would not have been able to enter its European patents into force in Finland, because Finland is a small market area. Now the unitary patent, however, is automatically valid in Finland, and therefore Y can sue S for patent infringement at UPC's Local Finnish Division.
- (ii) **If Finland has not ratified the UPC Agreement:** Y's patent is not in force in Finland, and Y cannot sue S for patent infringement.

Conclusion: A small Finnish company would be better protected against the threats of foreign companies for infringement, if Finland has not ratified the UPC Agreement. If Finland ratifies the UPC Agreement, non-European company that has adopted the unitary patent and the UPC will find it easier to seek out additional revenue from Finland with the unitary patent.

6.2.5 Case 5 (infringement/defendant)

Finnish SME manufacturing high-quality consumer products for a very select target group finds out that many small businesses are beginning to take advantage of its patented technology in a number of countries (Finland, Sweden, Denmark, France, Austria, Spain).

The Finnish company wants to enforce its patents against the infringers. Regardless of whether it is a question of a European patent falling under UPC jurisdiction, a unitary patent or a European patent opted out from under UPC jurisdiction, any infringement on the same patent by a different operator is resolved in its own separate legal proceedings.

UPC offers the opportunity of cross-border injunctions, because the UPC's jurisdiction extends to all countries participating in the system. In addition, in certain cases, the action may be brought against a number of defendants at the same time. Since the UPC's scope of jurisdiction must be seen as a single region, the defendants may act in different states. In accordance with the UPC agreement, a claim can be filed against a number of defendants only if there is a commercial relationship between the defendants and if the claim is for the same alleged infringement. In practice, this could be possible if the infringement companies belong to the same group of companies and if for all the companies it is a question of a product based on the same technical solution. Is not yet clear, whether the action may be raised against infringers in the same distribution chain who do not belong to the same group.⁷⁶

If the infringing companies not have the required commercial connection, the claims cannot be combined. The cases must be resolved in separate trials.

In this particular case, countries within the scope UPC jurisdiction may be countries that have ratified the UPC Agreement. In other countries, disputes relating to European patents are always handled by national courts. In which countries the European patent can be implemented depends on the countries in which it has been brought into force. Unitary patent is automatically valid in all the countries participating in the system.

For single trials UPC is probably more expensive than national courts. However, one can imagine that the first UPC ruling will probably help with negotiations with other infringers compared to first rulings by national courts as following UPC rulings in other divisions are likely to be similar to the first one. Aside from reducing parallel court cases between the same parties in different countries, UPC, relying on harmonised rules and procedures may reduce the number of similar or similar enough court cases in different countries between the same parties.

⁷⁶ See Norrgård (2013), pp. 1271–1273.

If they wish to bring any infringement injunctions into force as soon as possible, the Finnish example company must, however, bring actions against all infringers.

It is usual that the infringer, against whom the action is brought, brings a revocation counterclaim against the patent. If the patent is weak, the patentee may risk losing the patent in the whole area of the UPC at the same time. In terms of infringements taking place in the UPC countries, the patentee may bring its first claim to such favourable division – if such exists among infringement locations of infringers' domiciles – which is known to easily separate revocation counterclaims to the central division and thus proceed with the infringement litigation. In this case, the patentee could get an injunction against the infringer before the revocation of the patent is dealt with.

Until the patentee has commenced proceedings against another infringer in the UPC area, this second infringer may raise an annulment counterclaim at a central division to establish that an infringement has not taken place. The processing of the latter claim should be discontinued if the patentee files an infringement action against an infringer at a local or a regional division within three months of bringing the case to the central division. Infringement proceedings may also be initiated when an revocation action is pending at the central division. In this case, the local or the regional division shall have the discretion to suspend the infringement action until the central division gives a ruling on the counterclaim matter, or to continue to process the infringement action.

Conclusion: The new patent and the court system is more effective the more countries are included.

6.2.6 Case 6 (revocation/defendant)

Finnish start-up company M developing digital communications at the international marketplace detects through its monitoring of competitors that a foreign rival E owns a patent, which M estimates would be a crucial limit to its product development opportunities. In looking further into the patent M finds the patent has a number of weaknesses. Since the patent's opposition period has already expired, M decides to apply for judicial revocation of the patent.

In the case of a **European patent**:

- (i) **If Finland has ratified the UPC Agreement:** During the transition period a) opt-in, b) opt-out
 - a) **Opt-in:** If E has not opted out its patent M may bring a revocation action to UPC's central division in Paris. When the claim is brought to the court, E can no longer opt-out its patent. Successful claim would revoke the patent at the same time in all the UPC Agreement countries, in which the European patent is in force, in this case also in Finland. If M wants to revoke the patent outside the UPC area, it needs to take action in all these countries individually.
 - b) **Opt-out:** M needs to bring the claim to national courts, for example the Finnish court, in which case it can have the patent revoked in only one country with one litigation
- (iii) **If Finland has not ratified the UPC Agreement:** During the transition period a) opt-in, b) opt-out
 - a) **Opt-in:** If E has not opted out its patent; M may bring an action at UPC's central division. When a claim is filed, E cannot opt out its patent. Successful claim revokes the patent at the same time in all the UPC Agreement countries in which the European patent is in force. UPC's ruling, however, would not apply to Finland, which would not be a UPC Agreement country. M should raise an revocation claim separately in Finland (and in other non-UPC countries).

- b) **Opt-out:** in any case, M needs to bring an action before the national court, as well as in Finland, when it can have the patent revoked in only one country with single litigation.

	Patent	Court	Possible scenarios (Finnish company as revocation action claimant)
During the transition period	opt-out	National	<ul style="list-style-type: none"> Claims must be brought before national courts with national jurisdiction
	No opt-out / opt-back-in	UPC Central Division (+national)	<ul style="list-style-type: none"> All UPC Member States in which the European patent is valid fall under UPC's jurisdiction (Finland depending on whether Finland has ratified the UPC Agreement) Claims may also be brought before national courts
After the transition period	No opt-out opportunity	UPC Central Division (+national)	<ul style="list-style-type: none"> Implementation of UPC rulings for all UPC member states in which the European patent is valid (Finland depending on whether Finland has ratified the UPC Agreement) Claims from non-UPC countries must be brought before national courts with national jurisdiction

In the case of a **unitary patent**:

- (i) **If Finland has ratified the UPC Agreement**, M's needs to file the claim at UPC's central division. Successful claim would annul the patent in all the UPC states at the same time, including Finland.
- (ii) **If Finland has not ratified the UPC Agreement**, the patent does not apply to Finland, where M can continue its R&D work regardless of the patent. However, M would not be able to import the patent infringing products to the UPC Agreement countries. M can then bring an action against the UPC's central division if it so wishes to get the patent annulled. Successful claim would revoke the patent at the same time in all the UPC Agreement countries.

Conclusion: If Finland ratifies the UPC Agreement, an international Finnish company can apply for the revocation of its competitor's patent, with slightly more extensive effects (also extending to Finland).

6.3 UPC's impact in Finland

When assessing the effects of the ratification of the UPC Agreement, we may focus on the impacts that are limited to Finnish companies operating in Finland. The ratification decision is only a question of Finland's accession to a new court system, not the system coming into force in the first place. Finnish companies have European patents in any case, regardless of the decision. Also applying for unitary patents is available for Finnish companies, regardless of the decision.

Suppose that there were 25 UPC Contracting Member States when Finland ratified the Agreement. In this case, the unitary patent would be valid in 24 countries taking into account Italy's absence, and unitary patent and European patent disputes would be resolved in these countries, with jurisdiction over these countries. If Finland does not ratify the Agreement, the same applies for 23 countries in terms of the unitary patent and 24 countries in terms of the UPC. Thus, the Finnish company can obtain protection offered by the unitary patent and a unified patent court protection, at least in these 23 or 24 Member countries, whichever way Finland decides. Examining the effects of the ratification decision is then focused on evaluating the advantages and disadvantages to Finnish companies of the fact that Finland is not part of that protection. Accordingly, it is necessary to examine the advantages and disadvantages to businesses of the fact that Finland is included in the UPC system.

The unitary court system's effects do not, however, only extend to patent-holding entities. The effects would also extend to those companies that are competitors of the patentees of patents or otherwise acting in a sphere of influence of the patents, even if they do not own the a single patent. In addition to manufacturing enterprises these may include import companies, for example. In addition to patentees, such companies may become party to legal proceedings if they are alleged to be infringing patents in force in the area they operate in (see Case 4 above). When assessing the ratification decision's impact it is not only the patentee's position but also the position of companies that do not own patents that should then be taken into account as potential defendants or as potential revocation action claimants. It should be noted that there are companies who may suffer disadvantages of the court system but do not gain any of the benefits. This may be the case for companies which will be sued as defendants for potential patent infringements as the number of patents increases.

UPC does not have direct impact on national patent court cases so there is no need to examine this in the same way as unitary and European patent litigation in this context.

UPC ratification-decision-related impacts on Finnish businesses may be presented in the following table for the **unitary patent**:

⁷⁷ Italy has signed the UPC Agreement but it is not party to enhanced cooperation created for the unitary patent.

	Court	Patentee	Patentee's opposition
Finland ratifies	UPC	<p>Finnish patentee may bring an action against the infringer possibly at a local Finnish division (if Finland is where the infringement took place or the infringer's or the place of residence).</p> <p>A ruling made in UPC's division (regarding infringement actions made by the patentee or annulment action brought against the patent) can be enforced in Finland.</p>	<p>Finnish company may be called to the UPC for an alleged unitary patent infringement that took place in Finland.</p> <p>If a Finnish company wishes to revoke an existing unitary patent, they must bring this claim to UPC's central division.</p>
Finland does not ratify	UPC (does not apply to Finland)	<p>Unitary patents are not valid in Finland and therefore they cannot be infringed in Finland.</p> <p>A Finnish patentee may bring a claim to UPC for an infringement that took place outside of Finland and within the UPC area. This cannot, however, be carried out in Finland.</p>	<p>Unitary patents are not valid in Finland and therefore they cannot be infringed in Finland.</p> <p>Finnish company may even still be called to the UPC for an alleged unitary patent infringement that took place outside of Finland and within the UPC area</p>

As for unitary patents, Finland's ratification decision affects whether the jurisdiction of unitary patents and UPC proceedings extends to Finland. If Finland ratifies the UPC Agreement, all unitary patents are automatically valid in Finland. In this case, a Finnish company may infringe a unitary patent in its activities in Finland regardless of whether the patentee is using its patents in Finland or not.

The effects of the UPC Agreement ratification on Finnish companies are most complicated with regard to **European patents** because of the transition period. They can be presented in the following tables:

If Finland ratifies the UPC-Agreement:

European patent	Court	Patentee		Company as opposing party		
		Infringement action claimant	Revocation claim claimant	Revocation claim claimant	Revocation action defendant	Annulment counterclaim defendant
opt-out	national	The claim must be brought in the place of infringement with national jurisdiction	If loses, only national effect	May not bring a claim to UPC, always at national level with national effects	Action must be filed in the place of infringement with national jurisdiction	in accordance with national court practice with national effect
No opt-out / opt-back-in	UPC in countries that have ratified (also national during the transition period)	Extensive impact of an injunction – including Finland; court based on the place of infringement with or infringer's domicile (if no division, then central division) also Finland	If loses at UPC, impact also in Finland	UPC should be chosen (central division) against a weak patent; ruling valid in Finland also	as chosen by the claimant at a UPC division	Bifurcation option at UPC

If Finland does not ratify UPC Agreement:

European patent	Court	Patentee		Company as opposing party		
		Infringement action claimant	Revocation action claimant	Infringement action claimant	Revocation action claimant	Infringement action claimant
opt-out	National	The claim must be brought in the place of infringement with national jurisdiction	If loses, only national effect	May not bring a claim to UPC, always at national level with national effects	Claim must be filed in the place of infringement with national jurisdiction	In accordance with national court practice with national effect
No opt-out/ opt-back-in	UPC in countries that have ratified (e.g. Finland)	Claim must be filed separately in Finland and in UPC Agreement countries	If loses, no UPC jurisdiction on Finland	Claim must be filed separately in Finland and in UPC Agreement countries	If infringement in a UPC country, chosen by claimant in the UPC division in which infringed; if infringed elsewhere, (e.g. Finland) then at national level	Bifurcation option at UPC; if infringement in Finland, then as per national practice

The most relevant effects relating to UPC Agreement ratification on Finnish companies can be summarised in the following table:

EFFECTS IN FINLAND		
	Patentee	Potential infringer/ Company as patentee's opposing party
Finland ratifies (Unitary patent is valid in Finland.)	<ul style="list-style-type: none"> + Infringement action at UPC against European patent and unitary patent UPC is also valid in Finland. + Ruling enforceable in the entire UPC area may be acquired at local Finnish division. - If you lose the UPC revocation action, you will lose your patent throughout the region (including Finland). (Opt-out option during the transition period, so the only real threat is on the long term.) 	<ul style="list-style-type: none"> + Infringement action may be filed at UPC, enforceable in Finland - The more patents are valid in Finland (including those that may not be used in the market), which increases infringement risk (risk of ending up as patent claim defendant). (The risk is also dependent on e.g. the development of the patent troll phenomenon) - A UPC Court may be more expensive than a national court.
Finland does not ratify (Unitary patent is not valid in Finland.)	<ul style="list-style-type: none"> + A successful revocation action against a company at UPC does not annul the patent in Finland. A UPC issued injunction is also not valid in Finland. - The company must file European patent infringement action separately in Finland and in other UPC countries. 	<ul style="list-style-type: none"> + Infringement risk does not increase with the unitary patent. + National court may be cheaper than UPC. - The company must file European patent revocation claim separately in Finland and in other UPC countries.

7. FINNISH COMPANIES ON THE UPC

7.1 Regarding the current legal system

Nearly three-quarters of the company survey respondent companies had not been involved in patent proceedings at all in the last five years. 87 per cent of the respondents had not been involved in a patent trial in Finland, and 78 percent had not been involved in any patent proceedings European countries. The legal experience is clearly focused on large enterprises. The majority of those who had been involved in patent proceedings in the past five years also said they had familiarised themselves with the patent system reform very well or fairly well.

It was apparent in many interviews that companies tend to avoid patent litigation as much as they can. Conflicts are primarily resolved through negotiations. In many sectors patent lawsuits are rare. Infringements are avoided, and it is intended to ascertain your own patent's strength carefully before taking legal action against the infringer. Patent infringement action claimant risks its own patent at the same time, because the defendant will usually file an annulment counterclaim against the patent.

Only one survey respondent company had been involved in more than five patent trials in the past five years in Finland. Four respondents had been involved in patent trials two to five times and two respondents once. These were all large companies. Over the past year 12 respondent companies had been involved in patent trials (out of a total of 55 respondent companies), of which five once, six two to five times and one over five times. Of these companies one was medium-sized (two to five trials), and others were large companies.⁷⁸

In Finland, the respondents companies had been involved in litigation more often over national patents than European patents. The opposing party was little more often a Finnish company than a foreign company. The European patent litigation cases were largely over European patents and the other party was a European company.

Some of the respondents listed the countries in which the company had been involved in court proceedings. By far Germany was the most mentioned, but several companies had been to court in France, the United Kingdom and Spain.

In the past five years two large companies had been involved in parallel European patent litigation in several European countries, the other had been involved once, and the other over four times.⁷⁹ None of these cases included Finland. However, this had been the case for one small SME which, however, had not completed the survey, in which case the responses were not taken into account in the final results. If the new patent court system had been in force, with Finland's ratification of the UPC Agreement, this one respondent company would have avoided one patent litigation, provided that at least one other involved country had ratified the UPC Agreement and the European patent in question would not have been opted out.

The interviews revealed, inter alia, a position that currently in some industries often one trial in Europe is enough to solve a wider geographical conflict. For many companies, for example, Germany is the most important market in Europe. An injunction ruling in Germany may, in practice, to block operations in the whole of Europe:

• *"In Europe, it is hard to operate if essential pieces are taken away."*

In addition, a court's decision often gives an indication for how others would solve the issue. If the patent is revoked in one country, it would be a great risk to file an infringement action relying on the same patent in another country.

⁷⁸ Some survey respondents had indeed been involved in patent proceedings over five years before.

⁷⁹ These respondents, who may be seen to have most experience in legal proceedings also said they had familiarised themselves well with the European patent system reform.

Parallel proceedings are therefore rare among the survey respondents. These also are said to accumulate in industries where the patent disputes are common, such as the ICT sector.⁸⁰ Despite the relative rarity of parallel proceedings, 67 per cent of the respondents considered the possibility of parallel proceedings in the current patent court system to be very harmful, or somewhat harmful. Approximately the same proportion of respondents felt that other aspects of the current patent litigation system were harmful. These included the limitations of injunctions and annulments to a single country only. It was also considered an inconvenience that court decisions given in different countries may differ from country to country.

Regarding disadvantages of the current European patent litigation system



Few respondents (average of 2 respondents), who found these patent court system features to be rather useful, were mostly large companies in the electronics/ICT industry.

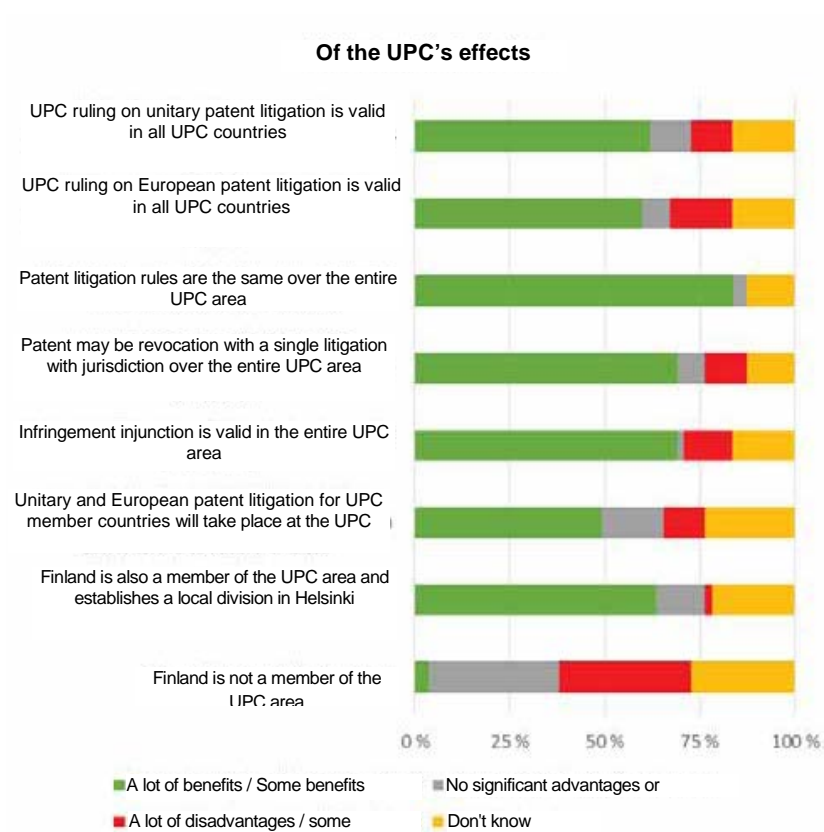
A few respondents pointed out that a negative or positive effect of these features may depend on the status of the company:

- *"Injunction and revocation rulings depend on whether you are involved as claimant or defendant, as in can also be useful, depending on which side you are on."*

7.2 Regarding the Unified Patent Court UPC

Respondents to the company survey were mainly positive about the changes brought about by the UPC. Similarly, a large part of them found it would be beneficial to the company that Finland is part of the UPC area. Only two respondents (both were large companies, one in chemistry/biotechnology/pharmaceutical industry and the other in electrical/electronic/ICT sector) considered it useful that the Finland was not part of the UPC area. However, in another context, the responses also identified disadvantages brought about by the patent flood. This is discussed further in the next chapter of the report.

⁸⁰ For example, in Finland, foreign pharmaceutical companies had been involved in parallel proceedings. Such companies, however, were not in the target group of the survey.



Over one third of the respondents considered that there would be no significant benefit or harm to the company on whether Finland is covered by the UPC area. However, as many as 64 percent of the respondents were of the opinion that the company would benefit from Finland being part of the UPC area and sets up a local UPC division in Helsinki. This way companies can be seen to be more positive towards the ratification of the UPC Agreement, in the event that there is a local Finnish division in Helsinki.

In some interviews it was highlighted that local division in Finland could offer companies a home game advantage, even if two of the three trial judges would be from outside of Finland. If there was no division in Finland, all patent disputes under UPC's jurisdiction would be dealt with outside of Finland with jurisdiction over Finland, assuming that Finland would have ratified the UPC Agreement. If Finland was included in a regional division, it would indeed be possible, that some of the court sessions would be held in Finland, even though the division's office was located outside of Finland. In this case, the language of the proceedings to would be English.

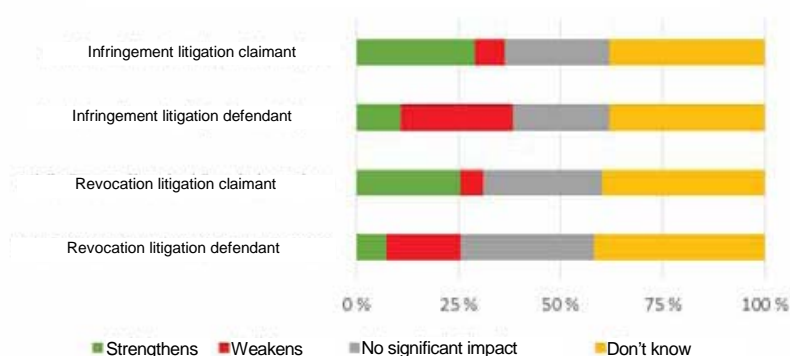
One perceived threat was that the ratification could increase the risk of a Finnish company being sued, for example, at the Portuguese local division in Portuguese. On the other hand a global Finnish company would, in certain cases, respectively, to take advantage of the opportunity to sue the foreign infringing at a Finnish local division in Finnish.

Other UPC -associated advantages and disadvantages were listed in the survey, among other things, as follows:

UPC	
<i>Benefits/Opportunities</i>	<i>Disadvantages/Threats</i>
<p>"The legislation is more balanced and it removes a lot of uncertainty. Only a few European countries have units specialised in patent law with in-depth knowledge from which consistent quality decisions may be expected case after case."</p> <p>"Clarifies and improves operational opportunities for companies operating in narrowish sectors, without the need to seek justice in 25 countries."</p> <p>"The court's caseload is high, so builds up significant experience in dealing with issues."</p> <p>"Uniform, costs"</p> <p>"For the patentee, EU-wide sanctions, including injunctions against alleged infringers. Bifurcation option favours patentees at the cost of alleged infringers."</p> <p>"The predictability of the final result supposedly better, in comparison with current situation in which it may differ from country to country a lot."</p> <p>"Maybe the courts know-how in IPR issues is at a higher level and more uniform Europe-wide than in the current system."</p>	<p>"Patent families essential, so a centralised revocation is a big risk, own operational freedom e.g. in Finland may suffer from the fact that the supplier will receive a sudden injunction in some other European country."</p> <p>"Surprise injunctions in another European country or that our company is selected to be scrutinised in Finland (the spider in the web principle)"</p> <p>"There is a danger that the matter is not understood correctly by the court, resulting in an incorrect solution, the impact of which is reflected in a large area."</p> <p>"The various divisions' practices may differ from one another, even if the ultimate goal has been consistent practice."</p> <p>"Such a hazy thing that it's impossible to say. It certainly would be expensive."</p> <p>"SMEs should not get discounts on the cost of the trial unless they are actually conducting business, because patent troll's actions should not be supported."</p> <p>"One of the procedure by which third parties can attack patents in UPC countries. Risk of EU-wide sanctions for alleged infringers, including injunctions, possibly even based on a weak or invalid patent due to bifurcation option. No experience of the court. Legal uncertainty will last for some years. Possibly high costs and complex language regime."</p> <p>"The rise of the risk level "</p> <p>"The court charges have not yet been defined. No experiences of the court as yet."</p>

Those respondents who felt that the UPC would have an effect the company's position in patent litigation, mainly felt it would strengthen their position as claimant at infringement or annulment litigation and their status as litigation defendant, in turn, weaken.

Companies' position at patent litigation at the UPC



Answers given by companies conveyed a positive attitude to the fact that Finland would be involved in the UPC and a local UPC division would be established in Finland. A number of the defendants felt that a local court process would be easier and less expensive than a foreign process.

Companies were also asked about the advantages and disadvantages of the fact that Finland is not covered by the UPC area. The response to this included, inter alia, the following:

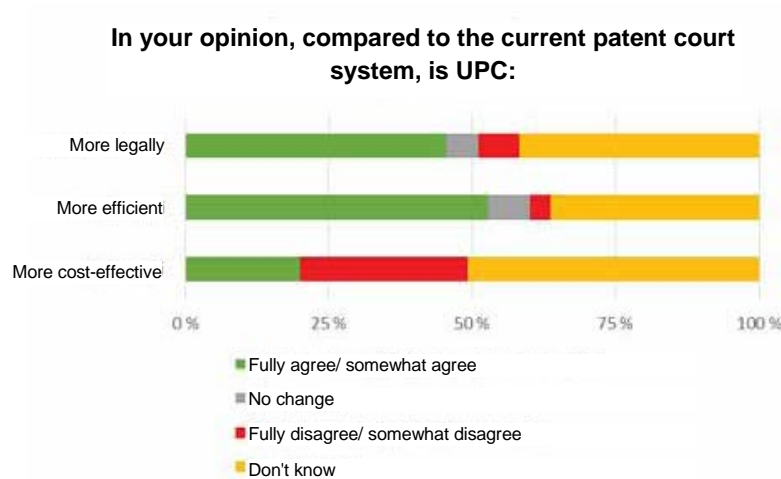
IF FINLAND IS NOT PART OF THE UPC AREA	
<i>Benefits/Opportunities</i>	<i>Disadvantages/Threats</i>
"Dispute that took place in one country/its resolution easily leads to settlement of the matter with wider impact."	"All EP and UPC disputes would be resolved somewhere else than in Finland. Costs would increase."
"Any patenting litigation penalties would not extend to Finland. But only a very small part of turnover comes from Finland, so I do not think this benefit is significant."	"No significant disadvantages"
"Business opportunities and obstacles are clearer."	"Costs may increase"
"Fewer surprising situations that are difficult to control in relation to the supplier's product."	"No real benefits or disadvantages. Depends on the number of disputes."
"Advantages most likely, or shouldn't have disadvantages."	
"Injunctions and annulments local, as well as patent litigation outcome would only have effect Finland."	"It would then not be possible to file an infringement action in Finland (in either Finnish or English) covering the whole UPC area. UPC claim should be filed in another country in that country's official language."
"There is no major impact."	
"No much of an impact since Germany is our main market."	
"Lower risk to manufacturers of operations in Finland. Efficient to patent-holders, comprehensive procedure covering all UPC member states."	"Due to small market, Finland would be insignificant in patent litigations and therefore the disadvantages are minimal."

Many respondents felt that the UPC will stand out from national courts due to its expertise and predictability of judgments, inter alia. UPC's disadvantages included, among other things, its cost.

IF LITIGATION TAKES PLACE AT UPC INSTEAD OF A NATIONAL COURT	
<i>Benefits/Opportunities</i>	<i>Disadvantages/Threats</i>
<p>"The court's practice is likely to be more uniform."</p> <p>"Expertise in handling cases."</p> <p>"The centralised court will improve the predictability of the results, the District Court's judgments having been a bit of this and that."</p> <p>"In relation to the current system the fact that it is possible to annul a patent at once in the entire area removes the risk of the patentee appealing in a patent in another region and carries on impacting business operations until the second patent is annulled, or indeed a ruling has been given over the patent infringement."</p> <p>"Uniform, cost-effective"</p> <p>"European patent + UPC benefits companies that are actively supervising the infringement of their patent rights. The new system will only make sense if there is malicious benefitting on other companies' inventions going on, and you want to eradicate this."</p> <p>"If the court practices and know-how are predictable, preparation and processes are more consistent. If handling times are shorter, this is also an advantage."</p> <p>"Larger number of legal cases/case laws each year."</p> <p>"The matter will be dealt with at once rather than as a continuous chain in all European countries."</p> <p>"Infringement proceedings are dealt with at the local division in Helsinki."</p>	<p>"Litigation costs are often more expensive."</p> <p>"If there is no local division in Helsinki, the costs will increase."</p> <p>"Surprise effect, forum shopping, the higher settlement and legal costs."</p> <p>"Infringement only occurring in Finland from a small entrepreneur's point of view would be more meaningful to deal with in Finland, where costs are lower it."</p> <p>"Costs are rising and you can no longer get away with Finnish language."</p> <p>"The rulings may be different."</p> <p>"It might impact your success on the matter."</p> <p>"Revocation actions are dealt with at the central division (France, UK, and Germany) regardless of the field of technology."</p> <p>"Bureaucracy, coordination more difficult, longer duration?"</p> <p>"No real harm if the litigation takes place in Helsinki at a "side branch" If you need to go abroad, the costs will increase."</p>

A large proportion of respondents were of the opinion that the UPC would be more effective and legally certain than national courts but also a more expensive system. In this context, one respondent commented:

- *"Forum shopping continues, the rules are complex and include loopholes, legal certainty and efficiency could increase in the long-term and when referring to cost-effectiveness, it should be remembered that the court costs are only a fraction of lawyers' and patent agents' costs."*



Over one-third of the respondents believed that unitary patent and UPC would increase the number of patent disputes and court proceedings:

- *"Potential competitors may be better equipped to protect their inventions and challenge."*
- *"The threshold for litigation is likely to fall."*

While a quarter felt that the court system would not have an effect on this:

- *"Disputes are embarked upon only in the case of a truly significant thing – in which case the system does not matter."*

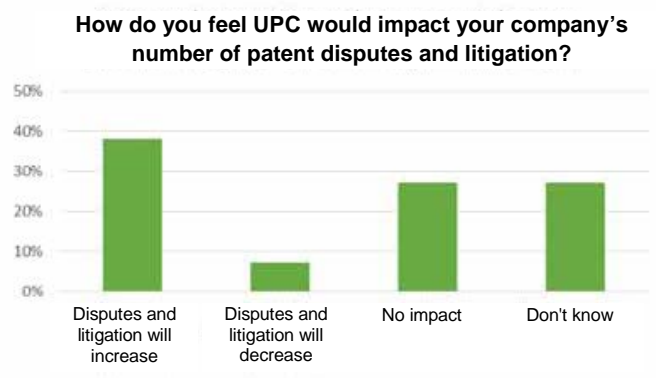
A small proportion of respondents felt disputes and litigation will decrease:

- *"Any potential disputes will be international, so the unitary patent would decrease the number of litigation in the unitary patent area to a single one instead of several."*

The same considerations came up in some of the interviews. To large firms, the cost was not a significant question when talking about patent litigation. On one hand a new, more functional court system could attract more litigation in Europe, on the other hand higher litigation costs might raise the threshold to litigate, where costs may be ordered to be paid by the loser.

One interviewee representing a major company, who supported the UPC as a simpler and more effective alternative to the current system, especially for international companies, highlighted that the court may be more expensive to SMEs operating in the domestic market:

- *"If the company only has production facilities in Finland, and the case would be handled in the Finnish market in court, it would certainly benefit the company. It would be cheaper and more efficient too. "*

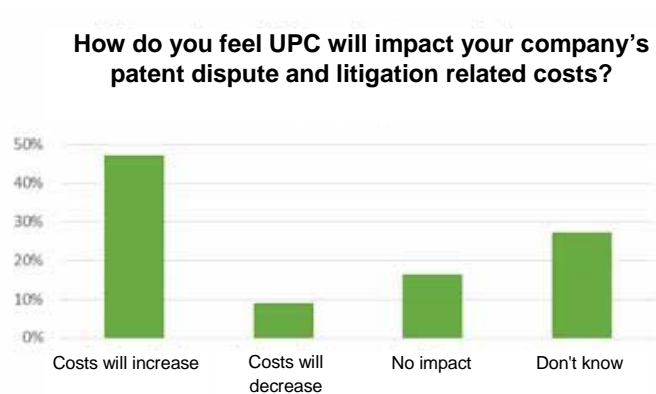


Almost half of the respondents felt UPC would increase the company's patent dispute and litigation related costs:

- *"The number of disputes will increase."*

Some felt that the costs would decrease:

- *"Fewer parallel court proceedings, fewer costs"*

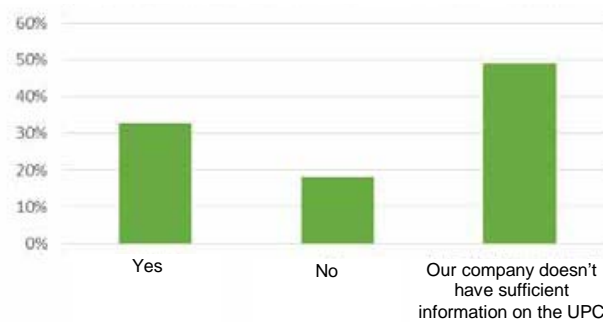


One-third of respondents felt their approach towards the UPC still depended on some uncertain or unresolved issues:

- *"It is essential to know the costs."*
- *"The risks related to the court system are still open questions. The goal is a unified network of courts; but are we forming a variety processes between these?"*
- *"Only practice will show the cost increases of any disputes"*

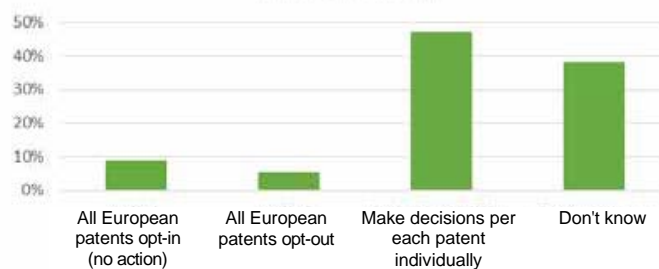
Half of the respondents felt that the company did not yet have sufficient information about the UPC.

Does your opinion on the UPC depend on an uncertain or unresolved matter yet to be decided on?



During the transition period the patentees may exclude (opt-out) their traditional European patents from UPC's jurisdiction for the life of the patent. Over half of the respondents intend to make any patent opt-out decisions for each patent individually. For many this strategic reflection is yet to take place.

How does your company intend to use the opt-out option?



The interviews revealed, among other things, that in the pharmaceutical sector basic patents are considered so important that they are not likely to be exposed to potential surprise effects brought about by UPC's geographically extensive jurisdiction. However, the system would enable a strong basic patent to potentially be brought back to the scope of the UPC at a tactically appropriate time.

A large company in the ICT industry might have thousands of patents. In this case it may be decisive at which level the opt-out rates are set:

- *"It would be good if the payment for a large portfolio would not be as expensive as for individual patents."*

One chemical industry company estimated that they will use the opt-out option only for real pioneering inventions. The company believes its patents are a strong and there is otherwise no high litigation risk. The all-new technology, however, is more likely to be exposed to patent disputes

Companies considered the transitional period to be the advantage in that:

- *"It can at least be seen what the costs are going to be like and how to proceed smoothly in practice."*

A disadvantage included that

- *"it would be laborious to find out for each of your competitor's patent whether they have been opted in or opted out when you are planning your strategy."*

7.3 Summary of the UPC's impact on companies

The Unified Patent Court system is designed to, among other things, reduce patent litigation costs and increase legal certainty. If these goals are met, the system could perhaps also be expected to increase companies' willingness to patent.

For Finland, the question is how the decision to ratify the UPC Agreement or not to ratify it influences Finnish companies' opportunities to benefit from the potential advantages of the system. In terms of legal certainty, the question is whether shifting European patent litigation matters from Finnish national courts to the Unified Patent Court system would increase the level of legal certainty experienced by Finnish companies. In terms of cost, among other things, it is a case of how much Finland's participation would reduce parallel court proceeding on patent litigation for Finnish companies, and on the other hand how much it would change the costs of individual infringements proceedings taking place in Finland or the litigation costs of court proceedings over European patent revocation cases.

Of the company survey respondents only 40 percent were familiar with the reform well or very well. The majority of respondent companies may, however, be considered to have answered these questions positively. Still, many respondents also identified the risks brought about by the UPC. Potential disadvantages of a unified patent court system include geographically extensive annulment and geographically extensive injunction risks⁸¹, especially if the quality of solutions varies from one case to another, as well as patent flood brought about by unitary patent. The annulment and injunction threats are actualised only after the transition period, because the companies have the possibility to opt out their European patents from the system and they do not have to adopt unitary patents. Patent flood may already begin to affect during the transition period. Bringing the new geographically extensive unitary patents into effect and may increase the risk of companies infringing the patent in the UPC area and be sued to the UPC.

Due to UPC's extensive jurisdiction system can be seen to benefit the claimant, at least in cases of infringement, with a strong patent or who applies for a weak competitor's patent's annulment. Instead, extensive geographic risk of revocation is a threat, especially to the defendant with a weak patent. Infringement action defendant's risks could increase further if the new court practices prove to be very positive for the patentee.

If Finland ratifies the UPC Agreement and sets up a local division in Helsinki, a Finnish company could raise patent infringement action here for infringement of a patent falling under UPC jurisdiction against an infringer for an infringement that took place abroad. This implies that the company has patented his invention as a unitary patent or it has kept its European patent valid in Finland under UPC's jurisdiction. Direct revocation claim must, however, always be taken to UPC's central division, in accordance with the patented technology, either in Germany, France or the UK. UPC shall give a ruling with jurisdiction over the entire UPC area.

Only once the UPC system has started it will be seen whether the threats will materialise, which would allow weak patentees to abuse the system's features favourable to the patentee. Of the so-called patent trolls the interviewees expressed, inter alia, the following points of view:

- *"If I were a patent troll, I would no longer go to court in the USA or in Asia, but rather I would file my actions in Europe."*

⁸¹ In terms of patent annulment it must be noted that while the patentee suffers from its patents being annulled, other companies benefit of expansion of their operational freedom as the patent's injunction powers expire.

- *Patent trolls attack those companies whose turnover is high enough. They look for companies with a turnover of one to two million euro, since you can only get 50,000 euro from them."*
- *"Trolls are discussed as if they would impact SMEs. The matter only really impacts the ICT industry"*⁸²

At the UPC legal costs for single cases are likely to increase because the court is intended to be self-financed. While other costs, such as attorney fees, would remain unchanged, UPC's court fees may be higher than currently in many national courts. At the same time, however, risk of doubling up on court cases in several countries courts is reduced.

During the transition period, the patentee may choose to take advantage of both existing and new system in place in the UPC countries. For the defendant this choice does not exist, but the defendant has to go to court in the court chosen by the patentee.

Many companies, however, do not see a high risk of patent litigation for themselves. One interviewee representing one of the major companies stated the following:

- *"Compared to how much discussion there has been over the court system, in fact, terribly small part of patents end up in court. Patent's value is generally generated elsewhere. Nobody wants to go to court. The fact that you are in court, shows that you have failed."*

On the other hand, if you end up going through patent litigation, the risk of cost is always high. A representative from another large company who was positive about the patent reform stated that for UPC it is not yet fully known how reasonable legal costs are defined and judged by the loser to pay.

- *"For a small company there is always a risk. If you get sued, it may mean that you lose everything."*

CHECKLIST

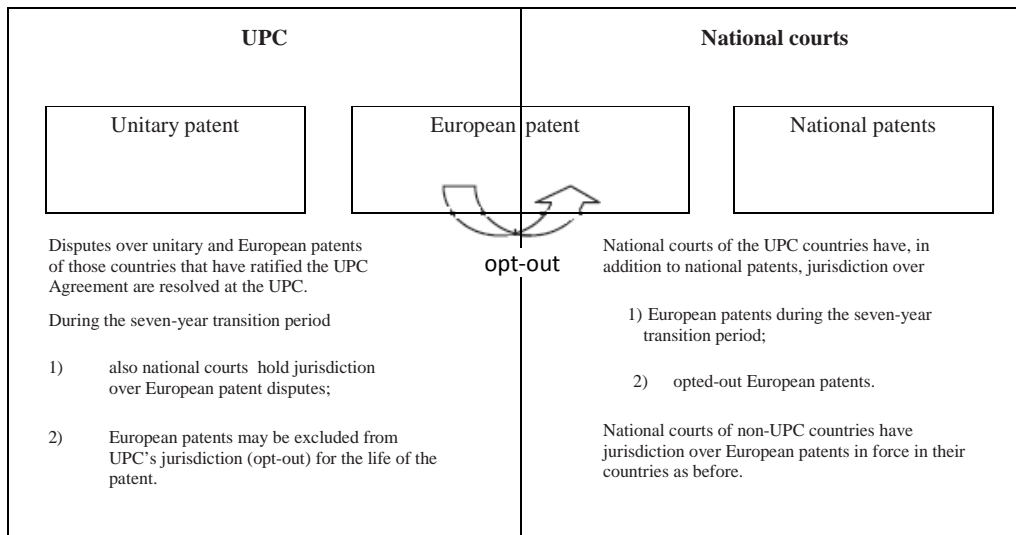
1. *UPC is likely to harmonise the legal practice as regards patents in Europe*
2. *The court's geographically extensive jurisdiction may increase risk for litigation for the defendant especially.*
3. *UPC is feared to increase cost for an individual patent litigation. The costs related to the system are not yet fully known, however.*

⁸² The term "patent troll" refers to hostile actions by the patentee. In some interviews it was noted that operational models, in which patents are owned without them being utilised in the company's line of business may even be positive phenomena for companies attempting to commercialise their patents. On the other hand, the patent troll phenomenon has started to appear in other industries than just the ICT industry.

8. THE PATENT PACKAGE AS A WHOLE

The package formed by the Unitary Patent and the Unified Patent Court (UPC) is called the EU patent package. The parts of the Patent Package are interconnected – the unitary effect of the unitary patent requires a court that can resolve the matter concerning the patent having jurisdiction over the region as a whole at the same time. The unitary patent can therefore enter into force only in those countries that have ratified the UPC Agreement. In addition, European patents of those countries that have ratified the Agreement fall under UPC's jurisdiction.

Jurisdiction is therefore divided between the UPC and national courts as follows:



When the new patent system starts, companies have a new form of protection available in the UPC Agreement countries, the unitary patent, which will co-exist together with national and European patents. With the unitary patent it will be possible, with a single registration, to obtain geographically wide protection for the invention in up to 24 countries. When making an overall assessment, the benefits of the geographically wide and uniform protection of Finnish patent applicants needs to be weighed against the harm caused by the fact that more patents will be in force in the participating EU member states, and that an increasing number of those will be owned by companies from outside the EU. If Finland ratifies the UPC Agreement, these patents would also be valid in Finland.

Another significant change is that the traditional European patents (which have not been opted out from UPC's jurisdiction) will be dealt with centrally by the UPC.

WHAT CHANGES? FINNISH COMPANIES' PATENTING OPTIONS		
<i>Current situation</i>	<i>Finland ratifies the UPC Agreement</i>	<i>Finland does not ratify the UPC Agreement</i>
National patent	National patent	National patent
No unitary patent	Unitary patent (Finland also within the geographical scope of protection)	Unitary patent (Geographical scope of protection does not extend to Finland)
European patent	European patent May be nationally validated in Finland, if not registered as a unitary patent	European patent May be brought into force in Finland nationally (unitary patent not valid for Finland)
Utility model	Utility model	Utility model

WHAT CHANGES? COURT WITH JURISDICTION		
<i>Current situation</i>	<i>Finland ratifies the UPC Agreement</i>	<i>Finland does not ratify the UPC Agreement</i>
In national patents national courts with national jurisdiction	In national patents national courts with national jurisdiction	In national patents national courts with national jurisdiction
No unitary patent	For unitary patents: UPC with jurisdiction over the entire area (including Finland)	For unitary patents: UPC with jurisdiction over the entire area (not including Finland)
National courts for European patents with national jurisdiction	For European patents: (not opted-out) UPC with jurisdiction over the entire area (transition period for European patents, in which case national courts would also have jurisdiction); also applies for European patents entered into force in Finland. Always national courts for European patents in non-UPC countries, as well as for European patents opted out from UPC (also applies for opted out European patents entered into force in Finland)	For European patents: (not opted-out) UPC with jurisdiction over the entire area (transition period for European patents, in which case national courts would also have jurisdiction); does not apply for European patents entered into force in Finland. Always national courts for European patents in Finland and other non-UPC countries, as well as for European patents opted out from UPC.
National courts for utility models	National courts for utility models with national jurisdiction	National courts for utility models with national jurisdiction

The previous chapters have examined the unitary patent and the UPC's effects on Finnish companies separately. This chapter examines the effects which are formed by these parts as a whole.

8.1 The effects of the Patent Package on companies' patenting activity

The most important characteristic of the unitary patent is its unitary nature. Unlike traditional European patents, the unitary patent provides the patentee with unitary protection, which is the same in all the participating member countries at the same time. The unitary patent provides a means to acquire a geographically extensive protection for the invention with a single registration and it is likely to be more cost-effective. On the other hand the unitary patent does not allow adjusting the costs by removing countries out from the scope of protection. It is not yet possible to examine the impact of the costs at this stage, because total costs related to the unitary patent have not yet been set at the time of writing this study.

The unitary patent differs from the present European patent system also in terms of the court system. Disputes relating to the unitary patents are resolved by the UPC with jurisdiction over the entire unitary patent area. Currently (and during the transition period those opted out from UPC) European patents, by contrast, are dealt with before national courts with national jurisdiction. In this way the court system could contribute to which form of protection is chosen for the invention by the company. However, after the transitional period, all European and unitary patent disputes would be settled by the UPC, excluding the opted out European patents. In this case, the company can avoid the new court system for patents applied for after the transition period by choosing a national patent or a utility model.

If Finland participates in UPC area, a patentee choosing the unitary patent will obtain protection for that invention in Finland at the same time. Both the unitary patent (under the UPC jurisdiction) and European patent disputes relating to infringements that took place in Finland are resolved at the local division in Finland. Similarly, a ruling made in another other UPC country would be enforceable in Finland. If Finland does not join the UPC area, the invention must always be protected separately in Finland by bringing the European patent into force here, or by applying for a national patent. In this case, patent infringements that took place in Finland would always be dealt with at a national court and the UPC's rulings would be enforceable in Finland. The Finnish company may, regardless of the ratification decision, end up in an annulment or infringement trial at the UPC if it registers its European patent as a unitary patent, enters the patent into force in a country that has ratified the UPC Agreement, or operates in a country that has ratified the UPC Agreement.

According to the company survey results, Finland's ratification decision does not really affect the respondent companies patenting as a whole. Unitary patents would be used slightly more if Finland ratified the UPC Agreement. This is likely to expand the companies' geographical scope of patent protection, since based on the company responses, very few Finnish companies were currently validating their traditional European patents extensively in all EU member states. Based on the responses the costs and the court system determine the choice of the type of protection:

- *"The costs, the need for geographic protection, the court system"*
- *"We want the widest possible coverage of Europe, with the most reliable court system. Economic factors are only secondarily as a factor."*
- *"The court system essentially"*
- *"Patenting route is selected on the basis of cost, not on the basis of the court/language."*
- *"Cost changes in the first place, the court system's functionality/disadvantages will become apparent in a number of years."*

Among small and medium-sized companies unitary patents were considered to be a significant tool to protect inventions in a situation where Finland ratifies the UPC Agreement (60% of all respondents thought it was important or fairly important and 11% felt it was not at all

important) as well as in situation where Finland would not ratify the UPC Agreement (44 % of the respondents thought it was important or fairly important and 13% felt it was not at all important):

- *“Surely the EP and national systems have already illustrated its costs and inconsistencies. One criterion is also the fact that the patent will need to be defendable and it is currently almost impossible for SMEs.”*
- *“Extensive protection for your invention easily.”*
- *“Depends on the cost; probably more expensive, in which case protection is only sought in most significant markets through the EP system.”*
- *“UPC clarifies the current practice, which promotes the unitary patent, but at the end of the day the matter is also influenced by UPC’s costs and its functionality.”*
- *“Unitary patent is still hazy and the court system ‘behind’ it is particularly hazy. The court will eventually join to help with/force licensing negotiations. Really depends on the industry.”*
- *“SMEs don’t usually require extensive protection in many member states. Unitary patent means higher maintenance costs in the entire EU area each year after being granted. The patent must always be renewed in its entirety or it must be given up altogether, whereas for the EP patent costs may be reduced by dropping out countries without losing the entire patent protection.”*

Based on the responses of the corporate survey, national patenting would not be likely to increase with the new system. Also, companies’ expectations for the UPC were largely positive. On the other hand in the interviews companies indicated that they would, at least occasionally use national patents instead of unitary and European patents, for example, in situations where it is a case of an important invention and where they would want to rule out the possibility that the patent would be invalidated centrally at the UPC.

It looks like the patent package’s effects on Finnish companies’ patenting would not necessarily be considerable. Based on responses of the company survey, the effects for patenting companies would be cautiously positive, with certain reservations. Depending on the company’s status (applicant/competitor, claimant/defendant) the impact of the reform may be different.

Many of the company survey respondents also emphasised that the system involves a lot of grey areas. These include the costs, for example. Therefore, it is difficult to assess the extent to which the reform would be beneficial.

In the company interviews, many companies criticised the fact that you should pay an opt-out fee for traditional European patents. In addition, some companies complained about the decision by which European patents are forced under UPC’s jurisdiction.

8.2 Patent package’s impact on companies’ operational freedom

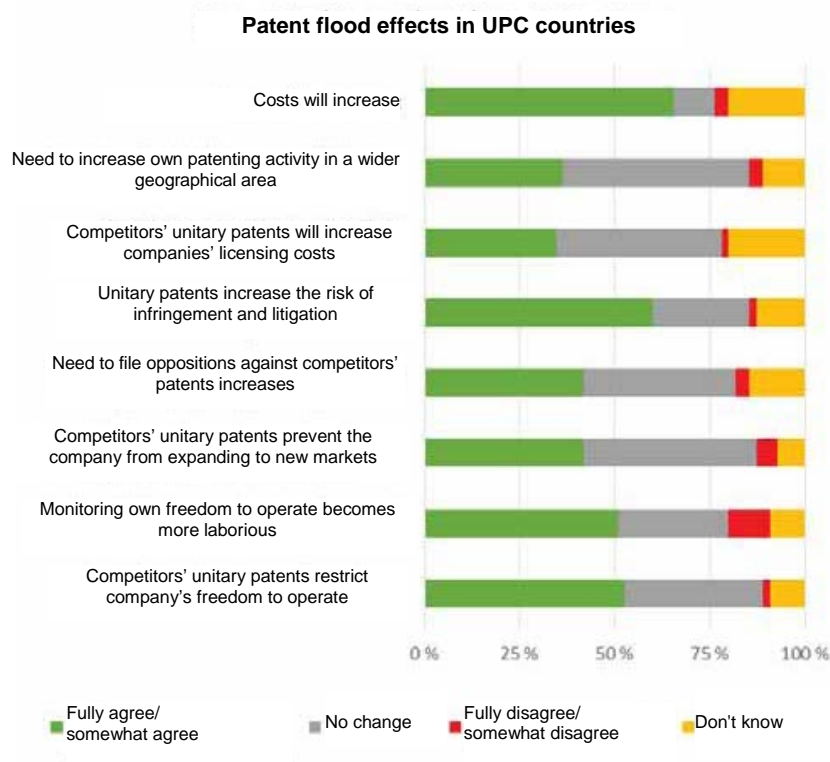
With the adoption of the unitary patent, the geographical coverage of a number of patents will expand, because in many cases the unitary patent is likely to be validated also in those countries where patentees would not have validated a traditional European patent. If Finland ratifies the UPC Agreement, all unitary patents would be automatically in force also in Finland. Depending on the popularity of the unitary patent, this may lead to a flood of patents in Finland: the number of patents in force in Finland will increase considerably.

These patents may also restrict the freedom to operate of Finnish companies that do not operate in other UPC countries outside of Finland.

In the company survey, a large majority (73%) of the respondent companies was of the opinion that with the unitary patent, the patenting activity of non-EU companies would increase in Europe considerably or somewhat. As a result the number of patents in force in UPC countries would also increase:

- *"Increases, especially since with the unitary patent, Finland will automatically become a country in which the patent is then valid. Currently, of course, the small size of our country is a benefit because it is not always remembered / realized to enforce EPO patents in Finland, so it is often unrestricted to carry out R&D and explore how you can create a solution that does not infringe, even if at first it would infringe the European Patent. 'The need to explore secretly' will therefore clearly increase with the unitary patent in small companies in small countries".*
- *"It potentially offers a cost-effective approach to non-EU companies to apply for EU-wide protection with EU-wide enforcement opportunities."*

Large number of competitors' patents, among other things, restricts the company's freedom to operate (53% of respondents fully agree or somewhat agree), increases the burden to conduct freedom to operate analyses (51%), prevents companies from expanding into new markets (42%), increased licensing costs (35%) and increase costs in general (66%). The increase in the number of patents caused by the introduction of the unitary patent also increases the risk of infringement and litigation in UPC countries (60% of the respondents Fully agree or Somewhat agree).



According to respondent companies, the following effects may be related to the increase in the patenting activity of non-EU companies with the unitary patent:

- *"Monitoring would become easier, but an increased number of patents could cause problems for product development."*
- *"The competition is getting tougher, but on the other hand, I believe that the resources allocated to product development will increase."*
- *"Freedom to operate monitoring would need to be carried out more frequently - a particular problem for growth-oriented SMEs?"*
- *"For our area of technology I do not consider it likely that the UPC would create activities that would not otherwise exist."*
- *"SME sector will suffer from increased competition."*
- *"Competition is getting tougher, the costs will increase, increased risk of infringement, growing importance of monitoring, the workload will increase."*
- *"Maybe in practice, the effects will still be small. Much will depend on how aggressively the patentees will bring actions. "*
- *"Domestic industry may suffer a bit. Domestic consumer can win a little bit if domestic companies in a 'monopoly' position are subject to effective competition."*
- *"Patent troll activity in the UPC area increases ".*
- *"Operational freedom in the EU is limited and carrying out R&D in Finland is reduced."*
- *"The number of litigations may well increase, depending on the court's activities. It is also possible that the so-called non-practicing entities will get more of a foothold in Europe. On the other hand, if European countries that have been involved in the "patent wars", where companies have fought over patent infringement globally, then litigation costs will decrease as a single litigation is enough in Europe."*
- *"EU companies must monitor third-party patents better and carry out more surveys, which may increase costs."*
- *"Some small and medium sized companies that only operate in the domestic market may have problems understanding patents, the number of which may increase significantly in the future."*
- *"Finland will have more patents in force, which may restrict the activities of the manufacturing industry in Finland."*

Despite the adverse effects reported by the respondents, only a fifth of the respondents felt that Finland would be a more attractive country for the company's product development and production in the event that there would be fewer competitors' patents in force in Finland.

In the context of the patent flood effects it should be noted that the restriction of freedom to operate and increased risk of infringement also extends to those companies in the UPC countries that do not themselves patent. These companies may infringe valid patents and they could end up as a defendant in a patent dispute. These respondents were underrepresented in the company survey. The most active respondents were actively patenting companies operating in the international market.

PATENT FLOOD MAY DISADVANTAGE DOMESTIC COMPANIES

The unitary patent would automatically be valid in participating EU member states. Unitary patent would also be valid in EU member states in which traditional European patents may not have been put into effect. This way the unitary patent increases the number of patents in force in the countries, possibly causing a real flood of patents.

It is likely that at least in the early stages, the unitary patent would be used mainly by those companies that are currently validating their European patents in several countries. Based on EPO statistics, Finland is among such countries. Therefore, the unitary patent would not initially cause an increase in the number of patents in the scenario where Finland ratifies the UPC Agreement. In the longer term, the impact is likely to become clearer. The difference may be increased if at the same time the unitary patent applicants reduce patenting in the countries that remain outside the UPC Agreement area.

For a limited amount of time a patent gives its holder the exclusive right for commercial exploitation of their invention, thus limiting the operational freedom of its competitors. If the patent is not in force in a particular area, the invention may be commercially exploited in this area, and the patent protecting the invention cannot be infringed accidentally and competitors cannot be intimidated with infringement actions.

The unitary patent is likely to be valid in at least the major European export markets for Finnish companies. Thus exporting companies need to take unitary patents into account in their activities, regardless of whether the same unitary patent is valid in Finland or not. Therefore, a patent flood threat mainly extends to those Finnish companies that operate purely in the domestic market or are only exporting to countries that are not included in the UPC. Finland's biggest such export countries include, for example, Russia.

In general, the disadvantages related to the patent flood depend, for example, on how many of such companies operate in patent-intensive sectors and whose costs would increase significantly with the need to monitor unitary patent that have been entered into force.

Perhaps it could also be assumed that the foreign unitary patentees may not necessarily have a great interest to control and intimidate small domestic Finnish companies, since these are unlikely to be good targets for cashing in. In general, the question that needs to be asked, is whether the patentee's willingness to litigate increases with the enlargement of the area of protection.

The scope of the detrimental effects of the patent flood is otherwise difficult to assess. First of all, at this stage, it is difficult to estimate the future popularity of the unitary patent. Also, it is difficult to assess how the unitary patent affects the patentees' willingness to obtain patent protection in countries where they do not have activities. Many respondent companies expected that the unitary patent would increase the need to monitor potential infringements of their own patents in a wider geographical area, and it would facilitate the expansion to new markets and improve licensing opportunities.

It should also be noted that during the transitional period and also for a very long time thereafter four kinds of patents will be valid in the UPC countries that should be considered in competitor monitoring. In particular, for an international company it may be very relevant whether a certain competitor's European patent falls under UPC jurisdiction or whether it has been opted out. The patentee can also change this decision during the transition period. If Finland ratifies the UPC Agreement, this decision influences, for example, whether actions for infringements that took place in Finland are tried in the UPC (UPC's local division in Finland) or in a national Finnish (the Market Court) and whether this ruling would have an effect on all of the UPC countries where the patent has entered into force, or only in the Finnish territory.

COMPARISON OF FINLAND AND POLAND

In 2012 Poland commissioned an economic impact assessment of the patent system reform. Deloitte's report read out the riot act of Poland's accession to the UPC. According to the report the system would be considerably costly to Polish companies. In assessing the effects of the scheme for Finnish companies different starting points of Finland and Poland need to be taken into account.

As the Deloitte report points out, Polish companies' patenting activity is low. Finnish companies file many times more patents in Europe than Polish companies. When the number of patents granted between 2004 and 2008 is assessed in proportion to the number of employees, this indicator ranks Finland third among the EU countries and Poland among the weakest. At the same time, domestically owned patents and imported patents ratio is stronger in Finland than in Poland.

According to Deloitte's report, the benefits gained by the companies' patent packages are the same whether Poland ratifies the UPC Agreement or not. UPC Agreement ratification would, however, have a negative impact especially on manufacturing companies. It is common for patent-owning companies to develop and patent their technology in their domestic countries and manufacture products in lower-cost countries such as Poland. If the patent owner is found to infringe its competitor's patent with its product, the injunction does not apply to manufacturing carried out in Poland. Court proceedings would only take place if the competitor's patent has also been brought into force in Poland (if the competitor has no operations in Poland, it may not be of any interest).

The extensive geographical scope of protection of the unitary patent automatically includes all UPC countries, and an injunction for an infringement applies to all these countries at the same time. In patent intensive industries the growth in the number of patents would increase the costs for Polish companies and limit their operational freedom. If Poland were to ratify the agreement, this would set new requirements for companies, for example, making sure that they are not infringing unitary patents of other companies' patent management. Licensing, litigation and necessary translation costs would increase. If Poland has not ratified the UPC Agreement, its manufacturing companies are not likely to infringe unitary patents. Therefore the country may maintain its competitive advantage in the manufacturing industry for longer.

In Finland (and patentees in other countries), the role of the manufacturing industry is probably not as strong as in Poland. Still, the UPC may also produce similar side effects for many Finnish companies as for Polish companies.

In the global value chain the most value is usually added where the products' intellectual property rights ownership is located (Ali-Yrkkö 2013). Therefore, it is important to also assess whether Finland's ratification decision would have an impact on Finnish companies' patenting incentives.

8.3 About patent flood and companies' freedom to operate in the interviews

Kommentti [T2]:

Tässä ylimääräinen enter

The effects of the patent flood were also addressed in the company interviews. Especially few representatives of large, global companies commented on the matter. For these companies, patent flood in Finland would have little effect. They will need to take competitors' patents into account in any case.

One interviewee considered it unlikely that small Finnish companies would be in more contacts with foreign patentees due to the patent flood. Many companies are already subcontractors of large global companies, in which case the products manufactured by them are already covered by foreign patents.

In addition, the company respondents highlighted that the majority of companies operates internationally or attempts to become international anyhow.

- *"Who has no operations in the UPC area? Of course, there are local SMEs only operating in Finland, which, in any case, fall outside the patent system. Or, companies are in chain with other companies, and therefore within the UPC scheme. Furthermore start-ups should anyway aim to expand outside Finland."*

Another interviewee felt that firms should, instead of Finland, see Europe as their domestic market. Unitary patents could enhance growth-oriented thinking and market exploitation of EU's internal markets. Thus, the system could increase the competitiveness of EU enterprises compared to non-EU companies.

- *"The starting point for companies should be to expand outside Finland. If competitors' patents aren't taken into account and examined from the beginning, it is rather a threat. It is an advantage that matters would be considered and understood more broadly."*

According to an interviewee, the unitary patentees would find it easier to invest in countries participating in the system where they have patent protection in place already, than in non-UPC countries.

According to one interviewee, it would be an advantage for a large company employing sub-contractors if the subcontractors were in the new patent system as they would have a greater responsibility for reporting. This would put pressure on the suppliers to improve their performance and large companies would have fewer surprises resulting from negligent subcontractors. Although this would be a disadvantage to sub-contractors, it could also be the key to their competitiveness:

- *"As a result of broader freedom to operate analyses conducted, they should have a product that can be marketed more widely."*

FINNISH COMPANY STRUCTURE

- The vast majority of the Finnish company base is formed by small enterprises. According to National Statistics 93.3 per cent of all businesses are micro-companies employing 19 persons. SMEs with fewer than 250 employees form 99.8 per cent of all businesses.
- Finland's exports are mainly made by large companies. However, many SMEs are sub-contractors and are indirectly involved in exports. Around the fourth of companies with fewer than 250 employees have exporting activity; Of all companies 23 per cent export products or services either themselves or as part of another company's product package. Direct exporting is more common than indirect exporting through a network of subcontractors.
- The smaller the company, the more likely it is for it not to export. Out of Finland's 266,290 SMEs about 200,000 (75%) only operate in the domestic market. Of these, 9,000 (61%) are small companies (10-49 employees) and 1,000 (40%) are medium-sized (50,249 employees).
- Of all companies, 86 per cent are not themselves engaged in exporting. For industrial companies, the same figure is 55 per cent.
- According to Customs, Finland's most important export countries in 2012 were Sweden (11.1%), Russia (10.0%), Germany (9.2%), USA (6.3%), The Netherlands (6.3%), Great Britain (5.1%), China (4.6%), Norway (3.2%), Belgium (3.1%), Estonia (3.0%), France (3.0%), Poland (2.5%), Italy (2.4 %), Japan (1.9%) and Denmark (1.8%).

Sources: Finnish Entrepreneurs and Customs

An SME representative was not afraid of the patent flood:

- *"I don't think it would be a problem as long as we are sufficiently innovative and this is what the whole patenting is based on."*

Another one felt that the more focused the company's operations are on the domestic market, the more it wishes that the system would not be implemented in Finland:

- *"I don't think, however that a significant number of companies would start enforcing its patents for the fun of it. If they had interests in Finland in general, they would already have validated their patents here."*

JANNE MAKKULA FROM FEDERATION OF FINNISH ENTERPRISES:

SMALL COMPANIES NEED TO BE TAKEN INTO ACCOUNT

"Patent intensive sectors must already be on board with technological progress and the arising new innovations and patents. The reform may not substantially affect these companies. The impact of patent flood and changes in operational preconditions in terms of impact assessment is relevant to the number of companies that obtain few sporadic patents or who do not understand to protect their inventions even if they are operating in an innovation-intensive sector.

As the number of patents increases, there is of course a risk that your activity is infringing or allegedly infringing someone else's patent. There is a danger in my opinion, of increasing intimidation of alleged infringement even though this would not necessarily be the case. This would be a particularly unfortunate development for small businesses. The average small business knows its IPR matters very poorly.

In terms of the litigation system the Finnish SME sector must have a genuine opportunity to defend its rights as effectively in European patent matters as at national level. Justice must be available in their own language, as close as possible and at a reasonable cost. A major concern we have relates to court fees. While it is clear that it always costs to litigate, a significant cost should not relate to official fees.

Experience or feeling that there is no legal protection, for example, because it is expensive, also affects willingness to protect innovation negatively. This in turn has large scale economic impact. I hear from small enterprises that there is little point in applying for a patent because a) it is expensive, and b) in any case small companies are disadvantaged in patent disputes, if a large company embarks on the dispute. In those cases it is more a matter of what kind of "feel" the company has in the terms of intellectual property rights. As a result, systems should be transparent and clear in terms of procedures, as well as in terms of costs.

In Finland, there is a problem, for example, in that small businesses are not widely active in exporting. All legislation should take into account the Think Small First principle, i.e. to build the rules in such a way as to enable (or at least so that they do not interfere with) small business activities in the market. Unfortunately, the reality is that industry is still secondary in terms of legislation, which is rather strange, taking into account the corporate structure of Finland and the EU.

I do not think, for example, that an increase in the number of patents itself necessarily makes it difficult for small businesses to access the market."

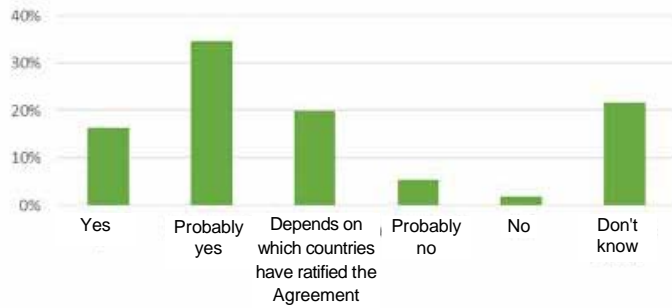
The text is based on interview responses via email by the Head of the Federation of Finnish Enterprises Legislative Affairs Janne Makkula.

8.4 "Should Finland ratify the UPC Agreement?

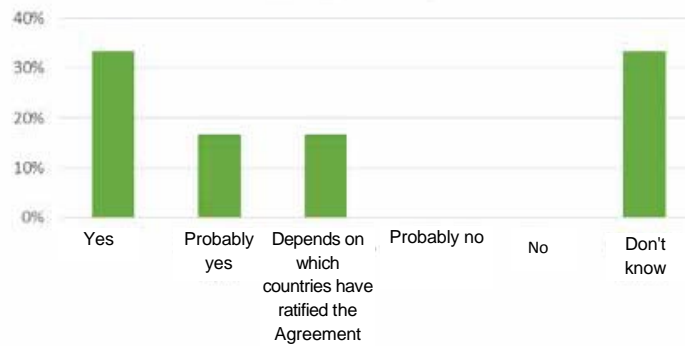
The company survey respondents were cautiously positive about Finland ratifying the UPC Agreement and unitary patent and a unified patent court rulings being valid in Finland. Only a small part of company survey respondents (7%) were of the opinion that Finland should probably not ratify the UPC Agreement. One fifth of the respondents could not answer the question.

At the same time it can be seen that the majority (77% of the comments, and 60% of all respondents) of answers were a qualified (probably yes/depends on what other countries have ratified the agreement/probably no)

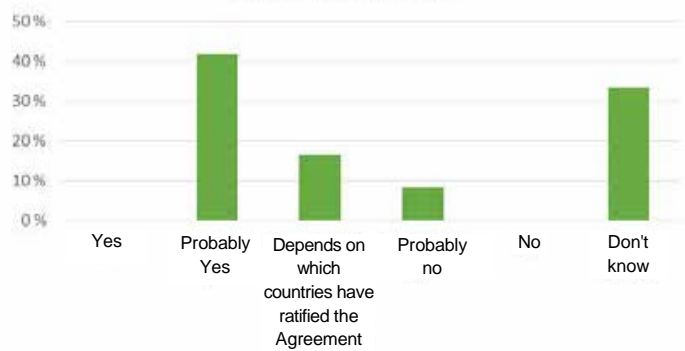
Should Finland ratify the UPC Agreement (on the assumption that the reform enters into force elsewhere regardless of Finland's decision)?
ALL COMPANIES

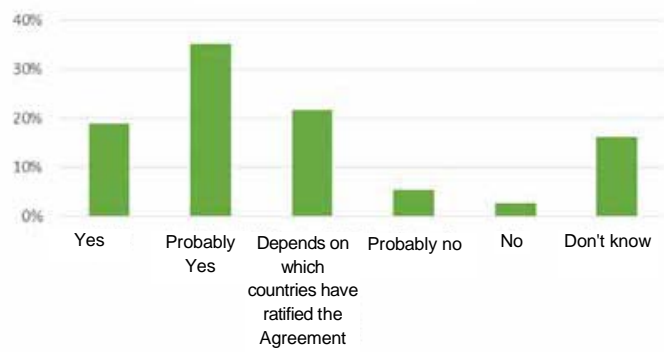
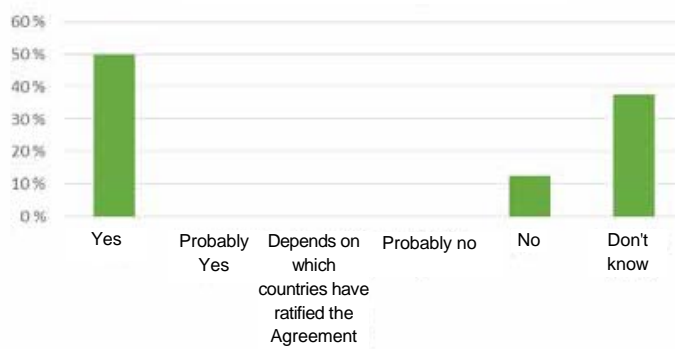
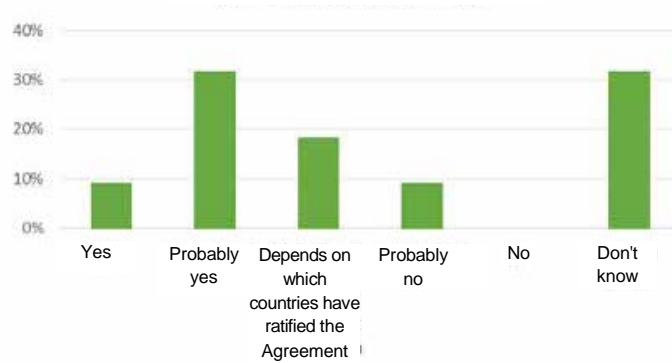


SMALL COMPANIES

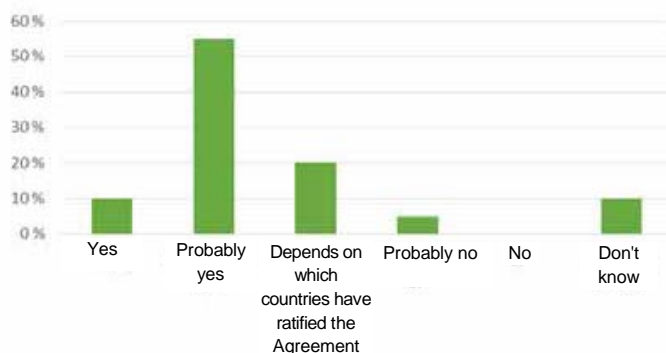


MEDIUM TO LARGE COMPANIES

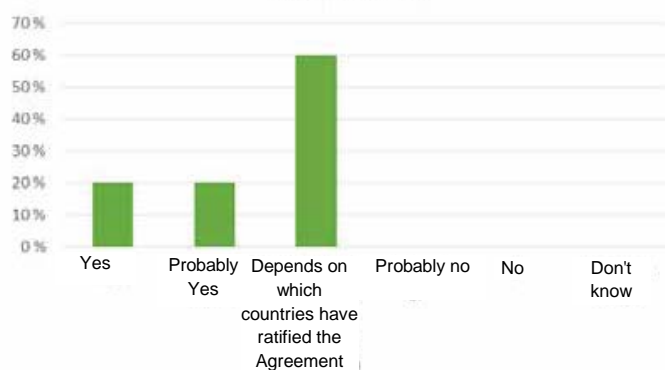


LARGE COMPANIES**CHEMISTRY/BIOTECHN/PHARMA****MACHINERY/MECHANICS**

ELECTRICITY/ELECTRONICS/ICT



OTHER (MULTIPLE INDUSTRIES)



ETLA'S JYRKI ALI-YRKKÖ:

FINLAND COULD TAKE ADVANTAGE BUT AVOID THE DRAWBACKS

"I am not an expert on the details of this reform, but from an economist's point of view, this is a case of the classic game-setting: it will be monitored, what everyone else is going to do, and then figured out how your own operations will affect others. General conclusion here seems to be that Finland should be free-riding. Companies can apply for unitary patents without Finland being involved. This way Finland could take the advantages while avoiding the disadvantages. A small company may not have the resources to monitor its patents when there will be more of them here. Operations halt and give us your money – the situation may come as a surprise.

Fact, there are several sides to the story. It is not easy to patent in each country separately. Companies do not know what will happen in three years' time. Unitary patent would provide broad protection once and for all.

It is clear that intellectual property is growing in importance. If Finland's opting out weakens IPR know-how, it's a bad thing. But would this necessarily be the case? Start-up companies, by definition, aim to expand to the world, and begin to think about protection in the early stages.

I do not see how Finland's decision would impact companies' investments. Opting out would mainly protect existing operations. For example, for R&D investment decisions, know-how is the most important factor, the cost will come later.

In general, I do not like the idea of freeloading. In many areas Finland is at the front line and it is not always a good thing. Everyone in the EU, pulls back home, and a lot of horse-trading is done. Political risk in this still exists. But at least for now, I would wait."

The text is based on the Finnish Economy Research Institute's Research Director Jyrki Ali-Yrkkö's interview.

Companies qualified their responses, inter alia, as follows:

- *"Finnish companies are forced to operate under UPC environment in any case, unless they are purely domestic companies."*
- *"Unitary patents can be exploited by all patent applicants, regardless of EU membership, while UPC ties domestic companies' hands "*
- *"We're part of Europe, together with other countries."*
- *"The common procedure is useful in particular to international companies."*
- *"I think this is a political decision, which may be based on factors other than the effects of the ratification decision, that is, whether Finland is in or out. The system itself will, however, deeply affect all Finnish export-oriented companies in the technology industry, if it enters into force."*
- *"Finland should stay in the mainstream, and in any case, we have to accept UPC procedures for patent matters in many other countries."*
- *"If the UPC remains a torso, you can forget it completely."*
- *"For the vast majority of Finnish industry only some of the EU countries are important. Legal Affairs are costly. UPC will be very expensive. Finland is a poor country in reality. Can Finnish companies afford to quarrel at the UPC?"*
- *"Then it is possible to get to a UPC court in Finland."*
- *"What Germany does is important!"*
- *"It seems that the benefits are minimal, at least from the perspective of our company."*
- *"The Finnish unitary patentees are likely to benefit, if there is a local UPC division in Finland."*

In an interview, a representative of a large company commented the following on the ratification question:

- *"Finland should stay outside of the UPC area. Consequently, Finnish industry would gain unitary patent benefits, but not be exposed to risks associated with the system. This option must, however, be weighed against, what kind of benefits would result in being a more obedient EU member state."*

For the company itself the decision does not matter much, however: it would be able to survive with all the options. These options would only have different advantages and disadvantages.

Finland is often a small market area for large international companies, and the Finnish ratification decision would cause little benefit or harm for these companies. Many of the interviewees, however, expressed concern about what will happen to the IPR know-how in Finland, if the Finland opts out of the system.

- *"Finnish IPR know-how is already lagging behind the UK and Germany. Again, If we sit and wait on this one as well, the know-how can disperse."*

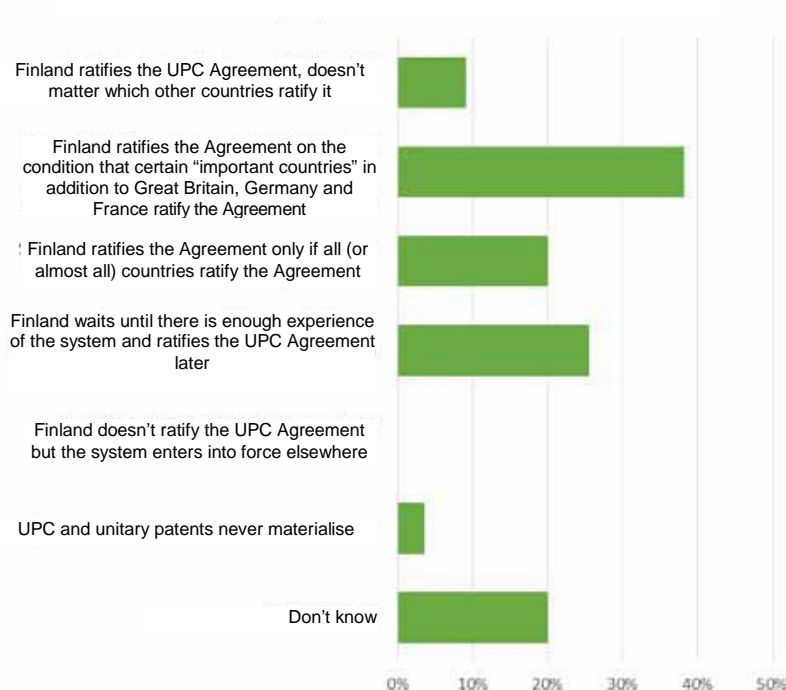
A representative from an SME interested in EU-wide patent protection was for the ratification:

- *"Yes, it should enter into force here so that the process would become easier, more professional and equal."*

Another SME patenting globally in potential markets was slightly more cautious:

- *"If ratification increases costs, I am not going to support it."*

In your view, which of the following would be most beneficial to your company?



About half of the company survey respondents considered that the most beneficial situation for them would be one in which almost all the other countries, or at least countries important to the company itself ratified the Agreement. Alternatively, many people thought that Finland should wait until there is more experience on the system.⁸³

When companies were asked which countries should be involved in the UPC, so that it would make sense for Finland to ratify the UPC Agreement, the deviation between companies' choices corresponded fairly closely to the countries in which the companies may have had entered their European patents into force. Replies highlight Italy and Spain, among others, which are not apparently going to be included in the unitary patent system (although Italy is going to be involved in the UPC). Other important countries included Sweden, the Netherlands, Denmark and Austria in addition to Belgium, Great Britain, Germany and France:

- *"The more countries ratify, the stronger it becomes. The stronger it becomes, the more useful it will be for Europe."*

⁸³ Despite the wording of the question (the most beneficial option was sought, i.e. choosing a single option) seven respondents chose to reply with more than one option. These answers were focused on the alternatives, according to which Finland should ratify the UPC Agreement in the event that almost all the other countries; or important countries ratified the Agreement. As an alternative, five respondents chose the option that Finland should still wait.

ASSISTANT PROFESSOR TUOMAS MYLLY:

RATIFICATION SHOULD AT LEAST BE DELAYED

"I find the European patent system reform a failure in many ways. The system does reduce extensive geographical patenting costs to some extent. The cost savings are not very significant; however, compared to the U.S. for example, patenting is still very expensive. The system consists of a number of risks and excesses, which are particularly focused on the defendants of the patent proceedings.

The ratification would be likely to be better justified to larger companies already patenting in more geographically widespread areas and not ratifying would be better justified from a smaller and geographically more narrowly patenting companies' point of view. The reform will increase legal uncertainty and costs to SMEs from increased monitoring of the patent and perhaps also due to the increasing number of litigation.

The question of what kinds of business interest do you wish to most promote with the ratification or non-ratification, is largely a question of economic policy, on which I do not want to take a stand.

The entire system's compatibility with EU law is uncertain. If the Court of Justice of the European Union wishes to annul the system as being against EU law, it is returned back to the drawing table. In this case, the national measures and the costs for the creation and maintenance of the system have been in vain. From this perspective, delaying ratification would be justified.

When the entire system is a failure in many respects and the benefits are uncertain, Finland should consider the ratification also from the point of view of whether this could lead to the whole system collapsing due to a domino effect. I think this would be the best option for Finland and in or other EU countries."

The text is based on interview responses by University of Turku Assistant Professor of European Law, Tuomas Mylly, via e-mail.

8.5 The effects of Finland's ratification decision on Finnish companies

Issues that arose in the survey's theoretical and empirical parts with regards to European patent system are included in the tables below. The difference between these advantages and disadvantages, i.e. the final conclusion is not only dependent on the economic assessment. Tables also include factors that are more difficult to assess and that are more politically charged. In addition, many of the factors are still difficult to predict at this stage.

Patent package (unitary patent and unified patent court UPC) as a whole	
<i>Benefits/Opportunities</i>	<i>Disadvantages/Threats</i>
<ul style="list-style-type: none"> • Reduces costs for geographically wide patent protection • Patenting product that covers a wide market area (such as the US patent) <ul style="list-style-type: none"> ◦ improves patent's licensing and selling opportunities ◦ easier to manage ◦ facilitates venture capital funding applications • reduces the number of parallel court proceedings and improves legal security • may reduce forum shopping • harmonises the quality of rulings and by increases predictability and legal certainty • boosts unitary markets and may attract investments to the UPC area 	<ul style="list-style-type: none"> • unitary patent can prove costly if the company will eventually need protection only in a few countries (especially if the official fees are high, annual fees cannot be reduced by reducing the number of countries) • Patent flood: more patents in force in a more extensive geographic area in the EU <ul style="list-style-type: none"> ◦ limits the freedom to operate of companies ◦ competitor monitoring needs to be increased ◦ risk of infringement and litigation increases • risk of losing a lot in a single litigation court ("all eggs in one basket") • increases risks, if the UPC does not work as it promises (extensive injunctions issued too easily; bifurcation, new forum shopping) • if in practice it increases the number of litigations for a high proportion of companies (cases where there is no need for parallel proceedings) • if it attracts "patent trolls" • if it is more useful to large non-EU companies than EU SMEs

Kommentti [T3]: xxx

Finland ratifies the UPC Agreement, in which case the patent package is also in force in Finland	
<i>Benefits/Opportunities</i>	<i>Disadvantages/Threats</i>
<ul style="list-style-type: none"> the system's impact extends to Finland, which reduces the costs of extensive patenting and parallel litigation benefits are greater the more countries are involved Finland's reputation? Finland would be at the forefront of IPR protection companies could be encouraged to patent more extensively in geographical terms companies' IPR know-how may increase Finland would have its own local UPC division, in which claims could be filed in Finnish 	<ul style="list-style-type: none"> patent flood, which would incur costs to SMEs in particular impact of risks would also extend to Finland UPC's costs (court maintenance, court fees) weakening of the Finnish patent office's operational preconditions European patent litigations excluded from national courts

Finland does not ratify the UPC Agreement	
<i>Benefits/Opportunities</i>	<i>Disadvantages/Threats</i>
<ul style="list-style-type: none"> Finnish companies may in any case take advantage of the system risks won't materialise in Finland, e.g. patent flood would not extend to Finland Finnish patent office's operational requirements would be maintained may increase interest for the unitary patent since the national patent remains in force all patent litigations relating to Finland would be dealt with at a national court, which may be an advantage to Finnish defendant companies 	<ul style="list-style-type: none"> bad reputation of a freeloader, political risks system's advantages would be reduced may reduce interest towards the unitary patent IPR know-how in Finland may lag behind other countries' claims under UPC jurisdiction may not be filed in Finland

Third option: Finland waits	
<i>Benefits/Opportunities</i>	<i>Disadvantages/Threats</i>
<ul style="list-style-type: none"> • avoids risks • allows to gather experiences and allow making ratification decisions based on improved information 	<ul style="list-style-type: none"> • IPR know-how in Finland may lag behind other countries' • political risks (depending on the length of the waiting period however, are smaller than if Finland decided to not to ratify at all)

The third option presented above of Finland waiting has not been considered in this report in terms of its impact on Finnish companies. The option did, however, come up in the course of the study. Company respondents were of the opinion that they did not yet have enough information available on the new system. On one hand, this was also due to the fact that the companies had not yet familiarised themselves with the system, on the other hand it was due to the fact that many of the reform details had not yet been determined. It was also important to the companies which other countries would partake in the system. There was no comprehensive information available on this yet. In addition, the ratification decision's effects on Finnish companies' IPR know-how is an issue that within the scope of this study and based on the views raised could not be examined in more detail.

The system can, however, be joined at a later date. The system does not require the ratification decision to be made by a given date. Getting out of the system can be much more difficult once a state has already joined it.

Sure, potential risks of waiting will depend on the time spent on it. On the other hand, it is difficult to see what the benefit would come of the fact that Finland made the ratification decision at the forefront before more details of the system and more accurate information is available, and even before the completion of the system is certain.

Arguments on behalf and against Finnish ratification decision are presented in detail in the appendices.

CHECKLIST

1. According to the survey, companies may use the geographically more extensive unitary patent slightly more if Finland ratified the UPC Agreement.
2. If Finland ratifies the UPC Agreement, every future unitary patent would automatically also extend to Finland. This would restrict the freedom to operate of companies and increase patent infringement and litigation risk also in Finland.
3. The respondent companies were internationalised companies that largely did not consider patent flood effects expanding to Finland a particular threat to their own operations.
4. Finland's ratification decision impacts companies in different situations differently. In addition to this the decision may have political impacts that are difficult to assess.

9. CONCLUSIONS

This report examines the European patent system reform's effects on Finnish companies. The new patent system enters into force for those countries participating in the unitary patent system which ratify the UPC Agreement, provided that the number of countries that have ratified the Agreement is at least 13. Each EU Member State can make the decision to join or not independently. Non-EU countries cannot join. Patentees of all countries may, however, benefit from the unitary patent and the Unified Patent Court (UPC).

The assumption in the report was that the reform will enter into force in Europe in any case, regardless of the Finnish ratification decision. The report examines the impact that the reform would have on Finnish companies depending on whether Finland ratifies the UPC Agreement or not.

The popularity of the reform depends on its costs

The new unitary patent will provide geographically extensive protection for the invention in Europe with a single registration. The Unified Patent Court (UPC) offers the opportunity to resolve patent disputes with a single litigation across country borders.

The majority of company survey respondents expressed that the European patent system reform was positive, and in the overall assessment felt it would bring more benefits than disadvantages compared to the existing system. Many companies will, however, weigh the new system's advantages and disadvantages for each patent individually.

The unitary patent will not become compulsory. The traditional European patent and the application and granting process relating to it will remain in force as is it. In addition, during the transitional period the traditional European patent can be opted out from the UPC's jurisdiction. While planning future scenarios, many respondent companies' perspective did not yet extend to the post-transitional period. A notable finding was that a number of companies will make their choices based on the costs related to the unitary patent, and not, for example, based on what kind of patent litigation system is related to it. Based on the interviews and the survey, patent litigation and the threat of them of the system related to them did not seem to affect the patenting routes of many patent applicants. This is well understood, since only a small proportion of patents ultimately end up disputed in trials. There are of course significant differences between different industries.

Presumably the unitary patent's popularity will grow over time, but especially in the early years companies will compare current costs and costs brought about by the unitary patent very directly. If the new system is more expensive, they will stick to traditional European patents, even if much more extensive geographical protection with only slightly higher financial input was available. This is particularly the case where the protection for the invention in a number of important countries provides an adequate protection to the patentee.

The new patent court system is considered to improve legal certainty in patent matters. Companies considered the system to bring improvements in respects to the current fragmented patent litigation system. Standard deviation of the responses was great, but in terms of the patentee's position the UPC was believed to be strengthening it from current status, while the position of the alleged infringer was associated with more threats. Costs associated with patent litigation were feared to grow from the present. At the same time the respondent companies recognised that it is still hard to make the final position on the UPC and the unitary patent, because so many of the issues relating to the new system are still open. In addition, the reliability of the responses was weakened by the fact that many companies are only little or not at all familiar with the reform commented.

Of all industries, the pharmaceutical industry welcomes the new system with caution. For manufacturers of original drugs it is important to obtain patent protection in as many countries as possible. However, they do not want to have their important patents exposed to the UPC's potential centralised revocation.

The new system is available in Finland, regardless of the decision

International Finnish companies could take advantage of the new patent system, regardless of whether Finland is participating in it or not. This reason is among the reasons why the assessment of advantages and disadvantages of Finland's ratification decision must be separated from any considerations of whether the reform is beneficial for companies or a disadvantage. In practice, the reform is in place elsewhere, regardless of Finland's ratification decision.

The respondents were internationalised companies that were active in using the patent system. Such Finnish companies would in any case be dealing with the new system. If they feel that they benefit from the reform, they would happily see Finland involved in the new system. The new system's benefits are within reach of these companies, regardless of whether Finland is included in the system or not. Finnish companies may, however, register their granted European Patents as unitary patents and thus obtain the potential available cost savings. Finnish companies may also use the UPC outside of Finland. The benefit of the fact that Finland is included in the system and the unitary patent protection and that UPC's jurisdiction also extends to Finland, is rather marginal for a large part of companies.

In terms of Finnish companies' operations, Finland's ratification decision would have most immediate and clear impact on companies' operational freedom in Finland.

Patent flood is one of the perceived threats of the new system. If Finland ratifies the UPC Agreement, it may be regarded as practically certain that the number of patents valid in Finland will grow. Since a patent is a negative right, the increasing number of patents restricts companies' operational freedom. This does not have much impact on internationally operating companies as they would in any case need to take into account this increase in patents in countries that are involved in the system. In contrast, for non-patenting domestic companies or domestic companies with little patenting activity, this is a clear disadvantage. In practice, more and more patents would be valid in Finland in the future, which would thus prevent these companies from conducting their business. The risk of patent infringement would increase, and companies would need to invest more in patent monitoring. However, if Finland did not ratify the UPC Agreement, particularly companies that do not apply for patents would at least be protected on Finnish soil from threats brought about by the new patent system.

The magnitude of the threats of the new scheme is still difficult to predict because of the number of factors in place. At least in part, the disadvantages can be reasonably ignored. It is, for example, questionable how much more likely it would be for small Finnish companies to be sued under the new system. Although the number of patent litigations has been growing with the growth in the number of patents, the probability of a company being sued is rather low.

⁸⁴ Even these companies could be seen to benefit from Finland being excluded from the system. An international manufacturing company could carry on manufacturing in Finland despite UPC injunction and it could carry on exporting its products outside the UPC area. International competitor may not have felt the need to patent its inventions separately in Finland, so in terms of Finland, the threat of parallel litigation is very small. In the survey's section on patent court system, however, only two companies considered themselves to be benefitting from the fact that Finland is not covered by the UPC area. These were high-tech companies well familiar with the reform.

⁸⁵ Patent flood's magnitude depends on how popular the unitary patent will be. It is estimated that up to 90 per cent of European patents granted would be registered as unitary patents. That is the clear overestimation, and no reports support these kinds of estimates. Presumably, a much smaller number of European patents will be registered as unitary patents. It is estimated that the vast majority of patentees would not take advantage of the system as it would be more expensive than the current system. In such cases, it has been suggested that a maximum of only about 10 per cent of European patents will be registered as unitary patents. The company survey supports these estimates, as well as surveys conducted by the Finnish Patent and registration Office. On the other hand it should be noted that over half of European patent applicants are from non-European countries. The implicit assumption has been that the vast majority of them would be to make use of unitary patent, since it would be more difficult for them than for European companies to assess the adequate level of protection and geographical coverage for individual countries. Thus, it is likely that applicants from non-European countries would take advantage of the unitary patent system more extensively. In conclusion, with regard to patent flood it can therefore be assumed that the granted European patents will be registered as unitary patents more often than the 10 per cent estimate suggests. How much more will depend strongly on annual fees, the amount of which has not yet been decided. Less than 8 per cent of European patents granted in Finland are currently entered into force, so if unitary patents are also valid in Finland, the number of patents will grow in Finland.

Court costs and potentially available damages must be balanced. Thus, it is not in the interests of most large companies to have to start a high number of small trials. It should be noted, however, that even the threat of litigation can be devastating to a small business operation.

Companies are cautiously supportive of Finland's ratification decision

The company survey widely examined the companies' current operational process and the expectations for the new system. In certain individual answers, the companies gave the impression that it would be better for them if Finland did not ratify the UPC Agreement, or the Finnish ratification decision would not have much impact on them. At the end of the survey the company respondents were directly asked whether Finland should ratify the UPC Agreement. In this case, however, the majority of respondents expressed at least a cautious welcome to ratification. Clearly only a remarkably small number of respondents were against ratification. The contradiction may be due to the fact that companies emphasize different things in different ways.

On the other hand it must also be noted that the effects of the reform will vary even within the same company. Between the operations within a company there may be significant differences that affect the company's patenting strategy. How companies form their opinions is also complicated depending on whether you want to emphasize the position of the company as a patentee, or as a third-party vis-à-vis competitor's patents. For example, the position of a patentee bringing an infringement action is considered to be strengthened with the new court system. The patentee may hold a wide range of options when choosing in which country's division to bring the action. The defendant does not have that choice. In addition, a geographically wide injunction is a high risk to the alleged infringer. On the other hand the patentee may lose a lot at once at the UPC, if a competitor raises a patent revocation counterclaim at the central division. Confidence in the new system would require experience in the court's operation, which cannot yet be had.

It is therefore not very surprising that no clear position on the reform has yet emerged. In carrying out a total assessment the companies have ended up supporting the ratification, even if it could have been expected otherwise based on some of the answers. On the other hand the respondents reported that they had familiarised themselves with the new system very poorly, which raises the suspicion that the question on the ratification decision has not been fully responded based on facts. Respondents may not have sufficiently clearly separated the issue of the impact of the new system in the first place from the general question on Finnish ratification decision's effects.

For example, the companies felt that in practice the unitary patent is a more significant means of protecting an invention for SMEs in the event that Finland does not ratify the UPC Agreement, than in the case where Finland does ratify the UPC Agreement. The survey's open responses raised an additional benefit gained by competitiveness increased by the unitary patent, brought about by Finland's ratification decision, in the long term, namely that in the long run competitiveness would increase as companies would need to increase investments in product development. More often than not having the unitary patent extending to Finland was considered to weaken the competitiveness of companies: more patents would be in force in Finland, which would increase the risk of patent infringement.

In terms of the judicial system the company survey respondents felt they would mainly benefit from Finland being included in the UPC area. It can be seen that the positive attitude towards ratification on this point was increased by the fact that Finland would establish its own local division. An additional benefit from Finland's ratification was that an infringement action for the entire UPC area could be brought in Finland. Especially for international companies, to which Finland is a small market, the ratification decision would not have a major impact. For such companies the option to bring an infringement action in Finland is essentially only an additional option. If a foreign company brings an action against a Finnish company, it is likely to do so outside Finland.

Indirect ramifications of Finland's ratification decision

The examination of the basic features of the European patent system reform indicates that Finland should not ratify the UPC Agreement, if Finland would like to play it safe.

The immediate benefits the ratification brings to growing and internationalising businesses seem to be relatively small, whilst the threats to purely domestic companies which are thus operating outside the UPC area, the potential threats are clear. The new patent system and the Finnish ratification decision may however have many indirect consequences difficult to predict.

In the company survey and interviews the position in favour of the ratification was justified, inter alia, by more political consequences, such as the development of know-how and Finland's reputation. In terms of know-how, the fear was expressed that if Finland is not involved right from the start, Finland will face political exclusion and the know-how related to the new system will not develop in Finland. On the other hand there is also opposition against ratification based on the fact that the national patent office's position would weaken. The decision may also affect other local patent experts' employment opportunities.

If Finland does not ratify the UPC Agreement remains as a freerider, Finland's image will be distorted and Finland's political position in Europe, or at least its influence in matters related to the patent system, will become more difficult to some extent.

It may be that without patent flood threat, small Finnish companies still will not take ownership of studying IPR issues.

It may be that if Finland ratifies the UPC Agreement, Finnish companies will start to think of, even if it is out of necessity, the whole of Europe as their domestic market, and they will begin to take advantage of the unitary patent, increase their product development and internationalise even faster and easier. An internationalising Finnish company must in any case adopt a new patent system. Finnish ratification decision may have an impact on whether the company adopts a system already in the early stages of its operations, or only when they begin to plan internationalisation in more detail.

The presented cause-and-effect relationships are not clear. It is also conceivable that all of the above development routes are possible regardless of the Finnish ratification decision. Arriving at a judgment also requires, inter alia, a choice of what kind of business you want to promote whilst acknowledging that your decision may hinder the position of other kinds of companies.

	Opportunities	Threats
Finland ratifies	Geographically extensive patent protection is more easily accessible by Finnish companies. This may encourage Finnish companies to invest more in their R&D and in its protection. Companies operating in Finland would begin to think more internationally, since they need to also consider the new unitary patents.	The number of patents valid in Finland increases, in which case Finnish companies' operational freedom is more limited and patent infringement risk is increased. There is a concern that the Finnish Patent Office's (PRH) income would decrease and operational preconditions would weaken.
Finland does not ratify	Finland could reap the early benefits and take advantage of the system without the disadvantages related to the patent flood. Finnish companies would have a wider operational freedom in Finland and lower patent infringement risk.	Finland is excluded from the new system and Finnish companies' IPR know-how and innovations will not develop in the way required by international competition and Finland's reputation and political influence are damaged from the "freeloader" decision.

Although this examination did not fall under the scope of the survey, Finland also has a third option. Finland may delay its decision at least for a while. The system still has many open points. The level of the unitary patent or the self-financing court's fees has not yet been set. The preparation of the procedural requirements related to the unitary patent has not yet been completed, and the court's procedural rules have not yet been finalised. The preparatory work attempts to anticipate and avoid certain threats. The details of the system can of course be

altered after it is implemented. The details will have been better clarified by the end of this year. Only when the costs are known, it can be calculated how extensive the benefits of the system would be for Finnish companies. Similarly, once the costs have been clarified, it is possible to better assess the magnitude of potential threats.

Carrying out an economic impact assessment is thus only possible at a later date. At the same time we learn more about other countries' decisions. The political field is just being outlined. The system will come into effect when the UPC Agreement has been ratified by 13 EU Member States, which must include the largest patent countries, Germany, France and the United Kingdom. This is thought to occur in 2016 or late 2015 at the earliest.

In their final assessment of the report, the authors have come to the conclusion that Finland could still delay its decision until next year. More facts would probably be available at that stage to support the decision-making.

This report primarily introduces viewpoints of patenting companies, but other viewpoints have also been taken into account. The company survey revealed that knowledge of the patent system reform is still weak, especially in SMEs. This report aims to increase this knowledge.

Decision-making is complicated by many difficult questions: How does the ratification decision affect foreign investment or does it have any impact on these? Which solution would encourage innovation in Finland? What are the political consequences related to the decision?

Whichever the final ratification decision is for Finland, once implemented, the European patent system reform will affect Finnish companies operating in patenting industries and their operational opportunities. In all situations, it is important to ensure that the Finnish IPR expertise will be of high quality in the future. International competition will be tougher.

There should be discussion over these matters in Finland now.

FURTHER INFORMATION/ SOURCES

Ali-Yrkkö, Jyrki (2013): Mysteeri avautuu. Suomi globaaleissa arvoverkostoissa. Taloustieto Oy, Helsinki.

Alt, Michael – Pors, Wouter (2013): The European Unitary Patent and the Unified Patent Court System – Filing and Litigation Strategies. The International Comparative Legal Guide to: Patents 2014. Global Legal Group.

Blumenröder, Ulrich (2013): The UPC System: Opting out, 10/2013. http://www.grunecker.de/files/upc_optout.pdf

Callens, Pieter – Granata, Sam (2013): Introduction to the Unitary Patent and the Unified Patent Court. The (Draft) Rules of Procedure of the Unified Patent Court. Kluwer Law International BV, Croydon.

Commission staff working paper. Impact Assessment. 13.4.2011. SEC(2011) 482 final.

Cremers, Katrin ym. (2013): Patent Litigation in Europe. Discussion Paper No. 13-072. Centre for European Economic Research.

Deloitte Polska (2012): Analysis of the potential economic impact from the introduction of Unitary Patent Protection in Poland (puolaksi).

http://www.mg.gov.pl/files/upload/16510/Analiza%20potencjalnych%20skutkow%20jednolitego%20patentu%20europejskiego_final.pdf

EPO Annual report 2013, <http://www.epo.org/about-us/annual-reports-statistics/annual-report/2013.html>.

Erhvervs- og vækstministeriet 21.2.2014: Lokal afdeling af patentdomstolen i Danmark. <http://www.evm.dk/aktuelt/pressemeddelelser/2014/21-02-14-lokal-afdeling-af-patentdomstolen>

Euroopan Yhteisöjen komissio (2007): Kommission tiedonanto Euroopan parlamentille ja neuvostolle – Euroopan patenttijärjestelmän parantaminen. Bryssel KOM (2007).

European Scrutiny Committee (2012): The Unified Patent Court: help or hindrance? Sixty-fifth Report of Session 2010–12. House of Commons.

Foster, Simon (2013): What about the SMEs? The UPC from a smaller perspective, Intellectual Property Magazine, 10/2013, p. 36–37.

Fröhlinger, Margot (2013): Introduction into the Unitary Patent. ESAB workshop, Munich, December 2013.

Haarmann, Pirkko-Liisa (2014): Immateriaalioikeus, Talentum, Helsinki.

Harhoff, Dietmar (2009): Economic Cost-Benefit Analysis of a Unified and Integrated European Patent Litigation System. Final Report Tender No. MARKT/2008/06/D.

Harhoff, Dietmar (2006): The battle for patent rights, teoksessa Peeters C. and B. v. Pottelsberghe de la Potterie (Ed.), Economic and management perspectives on intellectual property rights, New York: Palgrave Macmillan.

Harhoff, Dietmar – Hoisl, Karin – Reichl, Bettina – Pottelsbergh de la Potterie, Bruno van: (2009): Patent validation at the country level – The role of fees and translation costs, Research, Policy, 38(2009), 1423–1437.

HE 175/2010 vp. Hallituksen esitys Eduskunnalle European patenten myöntämisestä tehdyn yleissopimuksen 65 artiklan soveltamisesta tehdyn sopimuksen hyväksymisestä ja laeiksi sopimuksen lainsäädännön alaan kuuluvien määräysten voimaansaattamisesta sekä patenttilain ja Utility modeloikeudesta annetun lain muuttamisesta.

HE 92/2005 vp. Hallituksen esitys Eduskunnalle European patenten myöntämisestä tehdyn yleissopimuksen uudistamiskirjan ja patenttilakisopimuksen hyväksymisestä ja laeiksi sopimusten lainsäädännön alaan kuuluvien määräysten voimaansaattamisesta sekä patenttilain muuttamisesta.

HE 161/1995 vp. Hallituksen esitys Eduskunnalle laeiksi patenttilain ja eräiden siihen liittyvien lakien muuttamisesta.

Hoffmann Eitle, Steins, Clemens Tobias; Alps, Heike; Bausch, Thorsten; Folz, Christian Holger; Hölder, Niels; Klopschinski, Simon; Petersen-Padberg, Anja; Pfaff, Esther; Schweighart, Peter; Stratmann, Holger; Vocke, Henrik (2014): The EU Patent Package Handbook: A Practitioner's Guide, p. 26.

Huhtala, Liisa (2013): Yhtenäinen patenttisuojaa Eurooppaan. IPR info 1/2013. http://www.iprinfo.com/iulkaisut/iprinfo-lehti/lehtiarkisto/2013/IPRinfo_1_2013/fi_FI/Yhtenainen-patenttisuojaa-Eurooppaan%20/

Huhtala, Liisa (2014): Vaikutukseltaan yhtenäinen European patent ja yhdistetty patenttituomioistuim. Tilannekatsaus jatkovalmisteluun. IPR info 1/2014, p. 34-35.

Kansainvälisten suuryritysten koalition EU:n eri toimielimille lähettämä kirje 26.9.2013. https://docs.google.com/file/d/OB_U9nV8-MixrQWVwZmpDNXdGUDA/edit?usp=sharing&pli=1

Kuilen, van de Aalt (2013): Successful European oppositions: Analysis for the patent information professional, World Patent Information (Elsevier) 35 (2): 126-129.

Larson, Kelli (2013): An inside view to non-practicing entities business models: a case study, International Journal of Intellectual Property Management, 6(2013), p. 294-315.

LaVL 7/2007 vp - E 140/2005 vp. Lakivaliokunnan lausunto 7/2007 vp. Valtioneuvoston selvitys komission konsultaatioasiakirjasta koskien patenttijärjestelmän kehittämistä Euroopassa.

Lontoon sopimusta käsittelevän työryhmän loppuraportti. Työ- ja elinkeinoministeriön julkaisuja. Konserni 38/2009.

Managing Intellectual Property 27.9.2013: The B Word Provokes UPC Angst in Munich. <http://www.managingip.com/Blog/3260023/The-B-word-provokes-UPC-angst-in-Munich.html>

Mejer, Malwina - Pottelsberghe de la Potterie, van Bruno (2009): "Economic Incongruities in the European Patent System", ECARES working paper 2009-003, January 2009.

Mooney, Kevin (2013): Unitary Patent and the Unified Patent Court. AIPPI UK. <http://www.aippi.org.uk/docs/AIPPI%20UK%20UPC%20-%20September%202013.pdf>

Määttä, Kalle - Keinänen, Anssi (2008): Yhteisöpatenttiedotuksen kansallinen vaikutusarviointi. Työ- ja elinkeinoministeriön julkaisuja. Konserni 40/2008.

Määttä, Kalle - Keinänen, Anssi (2009): Suomen mahdollinen liittyminen Lontoon sopimukseen: Vaikutusarvio. Työ- ja elinkeinoministeriön julkaisuja. Konserni 27/2009.

National law relating to the EPC, 16th Edition (2013), EPO, Milnchen.

Regeringskansliet 4.3.2014: Nordisk-baltisk regional avdelning i den nya patentdomstolen. <http://www.regeringen.Se/sb/d/8883/a/235418>

Norrgård, Marcus (2009): Patentin loukkaus. WSOYPro, Juva.

Norrgård, Marcus (2013): Yhdistetyn patenttituomioistuimen kansainvälinen, asiallinen ja alueellinen toimivalta. Lakimies 7-8/2013 p. 1256-1277.

Oesch, Rainer - Pihlajamaa, Heli - Sunila, Sami (2014) : Patenttioikeus, 3., uudistettu painos, Talentum. Helsinki.

Pagenberg, Jochen (2013): Unitary patent and unified patent court - What lies ahead, Journal Intellectual Property Law and Practice, 8(6) (2013), p. 480-485.

Patentti- ja rekisterihallitus (2011): Toiminta- ja taloussuunnitelma vuosille 2013–2016, Dnro PRH/1544/20/2011. http://www.prh.fi/stc/attachments/tietoaprhta/toiminnansuunnittelujaseuranta/PRH_TTS_2013-2016.pdf

Patentti- ja rekisterihallitus (2014): Suomessa voimaan saatetut eurooppapatentit, <http://www.prh.fi/fi/patentit/tilastoja/eurooppapatentit.html>

Preliminary Findings of DG Internal Market and Services: Study on the Caseload and financing of the Unified Patent Court. 7.11.2011.

Smyth, Darren (2013): The Unitary Patent and Unified Patent Court: the choices and how to make them. AIPPI UK. <http://www.aippi.org.uk/docs/AIPPI%20UK%20UPC%20-%20September%202013.pdf>

SOU 2013:48: Patentlagen och det enhetliga europeiska patentsystemet. Delbetänkande av Patentlagsutredningen. Statens offentliga utredningar. Stockholm.

Straathof, Bas – Velduizen, Sander van (2010): Another reason for the EU patent: Declining validation rates. <http://www.voxeu.org/article/another-reason-eu-patent-declining-validation-rates>

TaVL 8/2007 vp - E 140/2005 vp. Talousvaliokunnan lausunto 8/2007 vp. Valtioneuvoston selvitys komission konsultaatioasiakirjasta koskien patenttijärjestelmän kehittämistä Suomessa.

Thomas, Philip –Proctor, Tony (2013): EPO oppositions: A cost-effective alternative to litigation, WIPR <http://www.worldipreview.com/article/epo-oppositions-a-cost-effective-alternative-to-litigation>

The IPKat 12.3.2013: Bifurcation of European patent litigation: a practitioners' perspective. <http://ipkitten.blogspot.fi/2013/03/bifurcation-of-european-patent.html>

The IPKat 04.11.2013: The UPC - Opt-out dangers: lessons from limitation; dual jurisdiction complexities. <http://ipkitten.blogspot.fi/2013/11/the-upc-opt-out-dangers-lessons-from.html>

Tulli: Ulkomaankauppa 2012 Taskutilasto. <http://www.tulli.fi/fi/tiedotteet/ulkomaankauppatilastot/katsaukset/tiedotteet/taskutilasto2012/liitteet/tasku2012.pdf>

Tumbridge, James (2014): Unified Patent Court: Harmonising Patent Law Throughout Europe? Business Law International Vol 15 No 1 January 2014, p. 55–66.

van Zeebroeck, Nicolas – Graham, Stuart (2011): Comparing Patent Litigation across Europe: A First Look.

Vary, Richard (2013): The Unified Patent Court puts European businesses at a competitive disadvantage, CIPA, May 2013, p. 249–252.

Xenos, Dimitris (2013): The European Unified Patent Court: Assessment and Implications of the Federalisation of the Patent System in Europe. *SCRIPTed* 10(2), p. 246–277. http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2324123

APPENDIX 1

The table below is a collection of arguments and views presented in different contexts, based on which the UPC Agreement ratification may be supported or opposed. The table was presented to the patent survey interviewees for debate and discussion purposes only.

FOR AND AGAINST THE RATIFICATION OF THE UPC AGREEMENT		
	FOR	AGAINST
Unitary patent	<p>Unitary patent to reduces patenting costs for a company seeking for more extensive geographical protection</p> <p>Patent flood mainly only impacts companies operating in the domestic market. International companies are confronted with foreign patents, despite the ratification decision. In the ratification decision the emphasis should be on the interests of companies, on which the Finnish growth prospects lie.</p>	<p>Unitary patent is in any case available for Finnish companies. Finnish ratification decision has little effect on the cost of patenting (in Finland, official fees are low and the application may be submitted almost entirely in English, which would not incur translation costs).</p> <p>With the UPC Agreement ratification there would be more patents in force in Finland. Disadvantage of this would be additional costs caused by additional patent monitoring. This also applies to all companies that operate, in addition to Finland, outside the UPC region (e.g. exports to Russia important to Finland).</p>
Patent infrastructure and IPR expertise	<p>PRH would not lose all its income but would receive income from EPO in the form of unitary patent fee distribution.</p> <p>Finnish companies' IPR expertise develops.</p>	<p>PRH lose revenue because national implementation of patents decreases. Therefore Finnish Patent infrastructure deteriorates.</p> <p>Also, the state incurs extra costs as it will need to finance the UPC at least in its early stages.</p>
Single Court	<p>European and unitary patent disputes could be resolved in a single litigation with jurisdiction over the entire UPC area (including Finland). For example, a patentee can get obtain an injunction against the infringer for the entire area. Also, a competitor's patent could be annulled for the entire area in a single litigation</p>	<p>The benefits would only apply for positive court rulings. Instead, the impact of negative rulings could only be a disadvantage for a company.</p> <p>Biggest disadvantages would relate to injunctions preventing manufacturing. If Finland was excluded from the UPC area, the risk of these here would be lower.</p> <p>UPC could be utilised by Finnish companies regardless. Even with positive rulings, Finland being part of the UPC region would only have relatively small benefits.</p>
Legal certainty	<p>UPC improves and standardises court rulings relating to patent litigation.</p>	<p>UPC is in any case available for Finnish companies outside of Finland. Also, the UPC's Divisions are going to have different approaches and forum shopping opportunities.</p>

		Besides in Finland, even national patent matters are solved by an expert special court, which, in addition, could take better account of the needs of Finnish companies.
Transitional period	During the transition period the patentee has the opportunity to choose whether they wish to include or exclude (opt-out) their European patents from UPC jurisdiction. This way the patentee could access both the new and the old system.	The defendant does not have an opt-out option, but is in this respect at the mercy of the patentee.
Litigation costs	<p>Companies avoid parallel litigation of the same patent, thereby reducing the number of court proceedings and at the same time the costs incurred by this.</p> <p>The number of litigation does not increase linearly as the number of patents increases. Infringement actions are more likely in places where the patentees themselves are engaged in business activity. Patents are valid in a more extensive geographic area, but the number of patentees that may initiate litigations may not increase concurrently.</p> <p>The need for litigation is reduced over time as the predictability and legal certainty created by UPC grow.</p> <p>Companies operating purely in the domestic market in Finland are generally small due to the already small market. The patentee has virtually no interest, at least not in vain to intimidate small companies, who would not have high returns available. (For example, if the normal license fee or a compensation was about 5% of its turnover, the company should be quite large before any return would be reasonable in relation to any anticipated litigation costs.)</p>	<p>Finnish ratification would only reduce European patent litigation recurrence to the, which are currently taking place in Finland. There are currently about 4-5 European patent related court cases in a year. Based on the Commission's reports, parallel litigations are rare (affects about one in every ten cases). The savings mentioned in would only apply to about few Finnish companies in ten years.</p> <p>Instead, subsequent increase in the number of patents (patent flood) caused by the unitary patent also inevitably increases the number of court proceedings as the infringement risk increases. The risk of this type of new litigation applies to all kinds of businesses operating within the scope of patents.</p> <p>Instead of the Finnish Market Court, legal proceedings will take place in the UPC, where costs are probably much higher. (If the patent flood produces even a single new patent litigation, this could already produce more costs that are caused by litigation duplication.)</p> <p>Many companies might agree to pay additional licensing fees to foreign companies to avoid legal proceedings. Also the increase of "unnecessary" infringement actions increases clarification costs.</p>
Incentives to innovate	<p>It may be assumed that Finnish companies would acquire more unitary patents if Finland ratified the UPC Agreement (patent would automatically also be valid in Finland).</p> <p>The cost-effective geographically extensive patent protection provided by the unitary patent adds patent's value and incentives for patenting.</p>	<p>It has also been argued that the Finnish companies would acquire more unitary patents if Finland did not ratify the UPC Agreement.</p> <p>For example, increasing court costs can also reduce the interest in the European patent. It is still possible to choose the unitary patent regardless of the ratification decision. UPC's effect extending to Finland in addition to other 24 states does not increase interest for the unitary patent.</p>

	<p>Competition increases and companies need to invest more in research and development. This can yield better innovation.</p>	<p>A small reduction in the price of patenting is only an added incentive for the weak and low-value patents.</p>
Market	<p>By extending the geographical scope of patent protection the number of foreign companies expanding their markets in Finland would increase, and so the consumers will benefit from increased competition and economic activity.</p> <p>"Patent troll phenomenon" mainly touches certain sectors, in which it is easy to play with weak patents. These sectors are already operating on the international market. Improved litigation quality narrows down the trolls' living space.</p>	<p>Geographically more extensive patent protection is not an important factor in a company's market area selection. Besides, increased competition would only harm Finnish companies.</p> <p>Instead, "patent trolls" may expand their operations to Finland as the geographical patent protection expands. This can, for example, lead to Finnish companies' licensing costs increasing.</p>
EU Cooperation	<p>The reform of the patent system is a joint project of the EU countries, in which Finland must be involved. Being excluded could be seen as freeloading, which could lead to political risks. This could damage Finland's reputation. (The fewer the countries participating in the UPC, the lower the system's benefits and the greater the financing costs of a country involved in the early stages. Similarly, the benefits of the system are the greater, the more countries to participate.)</p>	<p>Ratification would only incur costs for Finland, mainly without benefits. Other countries are opting out of the system. Finland may, in any case, join the new patent and the court system later if political pressure was to become too heavy; it is more difficult to get out of it than join (see the euro).</p>

APPENDIX 2

COMPANY SURVEY ON EUROPEAN PATENT SYSTEM REFORM

1. Which industry does your company operate in? (select one)	Chemistry/biotechnics/ pharmaceuticals
	Machinery / mechanics
	Electricity / electronics / ICT
	Other, give details?

2. What is the number of employees in your company in Finland?	
	Less than 10
	10-49
	50-249
	Over 250

3. Is your company part of an international Group, whose domicile is not Finland?	Yes
	No

3.1. Notifications and comments

4. What is the role of Research and Development in the operations of your company? (select one)	Very significant
	Significant
	Minor
	Not at all significant

4.1. Notifications and comments:

5 % Which are the most significant markets for your company, in which you carry out commercial operations? (Number in the order of importance, 1=most important; 3=least important. If you only have a single market (e.g. Finland), write down 1 and leave the other sections blank; if you have two markets, number them in the order of importance 1 and 2).
Finland
Other Europe
USA
Asia
Other regions

5.1. Notifications and comments:

6. Where are your production facilities based? (you may choose more than one option)	
	Finland
	Other Europe
	USA
	Asia
	Other regions
	No own production facilities

6.1. Notifications and comments:

7 % Where does your company carry out Research and Development activities? (you may choose several options)	Finland
	Other Europe
	USA
	Asia
	Other regions

7.1. Notifications and comments:

8. Where do your most important competitors operate? (you may choose several options)	Finland
	Other Europe
	USA
	Asia
	Other regions

8.1. Notifications and comments:

9. On average, how many patent applications has your company submitted in the last five years annually? (select one)				
	0	1	2-10	over 10
National patents in Finland				
European patents (does not include validations)				
PCT-applications				
National patents in other EPC countries				
National patents outside other EPC countries				

9.1. Notifications and comments:

10. In the last five years, how many times has your company taken part in opposition proceedings at the EPO? (select one)	0
	1
	2-10
	Over 10

11. In how many cases has the opposing party been				
	0	1	2-10	Over 10
Finnish				
Nordic/Baltic				
Other European				
Non-European				

12. Does your company monitor patenting activity in your industry?	Yes
	No

12.1. Notifications and comments:

13. If Yes, how often are such things being monitored? (select one)	Continuously
	Several times a year
	Every six months
	Once a year
	As necessary
	Other, give details?

13 Other

13.1. Notifications and comments:

14 % In what context is the monitoring being carried out? (you may select several options)	Continuously
	In conjunction with R&D
	When submitting out own patent applications
	When monitoring competitors' patenting activity
	When planning entry to a market
	Other, give details?

14 Other**14.1. Notifications and comments:**

15. Has your company utilised shortcomings in the geographic coverage of your competitors' patent portfolios in the EU, as in only operated in countries in which the competitors' patents were no longer valid? (Choose one)	Often
	Quite often
	Occasionally few times
	We haven't

15.1. Notifications and comments:**16. Which advantages and disadvantages do you feel are associated in the current European patent system?**

	A lot of advantages	Some advantages	No significant advantages or disadvantages	Some disadvantages	A lot of disadvantages	Don't know
European patents must be entered into force in each country separately						
London Agreement has lowered costs						
European patents can flexibly be linked to national patents						
European patents can be centrally annulled at EPO claims procedure						
European patent ownership may be divided per country between several patentees						
Ownership changes of granted European Patents may be registered country-specifically						
European patents may have different sets of claims for different countries and they may not be revoked based on prior national rights						

16.1. Notifications and comments:

17. When your company chooses the countries in which you are applying for patent protection, to which extent do these factors affect the company's decision?

	A lot	Quite a lot	Little	No impact	Don't know
The country's commercial potential					
Competitors' activity in the country					
Importance of the patented technology					
Faith in that country's legal processes in potential infringement proceedings					
Total annual patent fees					
Total translation costs					
Other costs					

17.1. Other factors: give details?

18. In the past five years, in which EU countries has your company entered their European patents into force? The following countries have ratified the London Agreement and do not require translations: United Kingdom, Germany, France, Ireland, and Luxembourg. If a patent is in English, the following countries do not require a translation: the Netherlands, Finland, Sweden, Denmark, Hungary, Latvia, Lithuania and Slovenia.

	In the following countries the EP patent is enforced jointly	In the following countries the EP patent is sometimes enforced, countries are significant, however
Great Britain (UK)		
Germany (DE)		
France (FR)		
Ireland (IE)		
Luxemburg (LU)		
Netherlands (NL)		
Finland (FI)		
Sweden (SE)		
Denmark (DK)		
Hungary (HU)		
Slovenia (SL)		
Lithuania (LT)		
Latvia (LV)		
Estonia (EE)		
Austria (AT)		
Belgium (BE)		
Bulgaria (BG)		
Cyprus (CY)		
Greece (GR)		

Malta (MT)		
Portugal (PT)		
Romania (RO)		
Czech (CZ)		
Slovakia (SK)		
Italy (IT)		
Spain (ES)		
Poland (PL)		
Croatia (HR)		

19. Have you validated your European patent in more countries after the London Agreement than before?	Yes
	No

19.1. If yes, give details?

19.2. If no, give details?

20. Does your company have the need to enforce protection in all EU countries (unitary protection would not apply to Italy, Spain or Poland)?	Yes
	No

20.1. If yes, what type of need?

21. Has your company been disadvantaged by the fact that the European patents have not been entered into force in all EU countries?	Yes
	No

21.1. If yes, disadvantaged in what way?

22. Which factors influence how long your company holds its patents valid in Europe?				
	Very important	Less important	No significance	Don't know
Annual fees increase towards the end of the protection term				
Competitors' activity				
Geographically extensive cover of the protection				
Importance of the market				
Technology expiry				
Licensing or other contracts				

23. Which other factors?

24. Does your company pay annual fees for validated European patents for as long in each country or does this vary depending on the Member State?	Just as long
	Varies
	Don't know

25. Do you consider it important to be able to decide on the payment of annual fees on a country-specific basis?	Very important
	Less important
	No significance
	Don't know

25.1. Notifications and comments:

26. How many times in the last five years has your company taken part in a patent court case in Finland?	0
	1
	2-5
	Over 5

26.1. If yes, which type of court case and in which position (claimant/defendant)?				
	Only as claimant	Only as defendant	Both defendant and claimant (in different trials)	None of these options
Annulment				
Infringement				
Security action				

26.2. Other, give details?

27. Was the opponent (you may choose several options)	Finnish
	Nordic/Baltic
	Other European
	Non-European

27.1. Was it a question of (you may choose several options)	A national Finnish patent
	European patent brought into force in Finland

28. In the last five years, how many times has your company been involved in a patent court case in other European countries?	0
	1
	2-5
	Over 5

28.1. If yes, in which countries?
--

29. If yes, which type of court case and in which position (claimant/defendant)?				
Annulment	Annulment	Annulment	Annulment	Annulment
Infringement	Infringement	Infringement	Infringement	Infringement
Security action	Security action	Security action	Security action	Security action

29.1. Other, give details?

29.2. Was the opponent (you may choose several options)	Finnish
	Nordic/Baltic
	Other European
	Non-European

27.1. Was it a question of (you may choose several options)	A national patent
	European patent

30. How many times in the last year has your company been involved in parallel European patent court cases in several European countries?	0
	1
	2
	3
	4 or over

30.1. Notifications and comments:
--

31. In how many incidences was Finland one of them?	0
	1
	2
	3
	4 or over

31.1. Notifications and comments:
--

32. Which are the biggest weaknesses of the European patent court system: What level of disadvantage do you feel the following have to your company??

	Great disadvantage	Some disadvantage	No disadvantage	Rather an advantage	Don't know
European patent trials may have to be fought in several country separately					
An injunction only applies to the country in question					
Annulment decision only applies to the country in question					
Court rulings may differ from one country to another					
Forum shopping is often possible					

32.1. Notifications and comments:

33. How well have you familiarised yourself with the future unitary patent and UPC system?	Well
	Rather well
	Little
	Not at all

33.1. Notifications and comments:

34. What advantages and disadvantages does the unitary patent have compared to European patents from the patentee's point of view?

	A lot of advantages	Some advantages	No significant advantages or disadvantages	Some disadvantages	A lot of disadvantages	Don't know
Unitary patent is automatically valid in all						
Unitary patent forms a uniform protection and the patent ownership						
Unitary patent ownership changes may be registered						
Unitary patent annual fees are payable for the entire area.						

35. Notifications and comments:

36. If the company chooses the unitary patent for all its patents, then they have patents valid in a geographically extensive area, i.e. in all UPC countries. Do you agree or disagree with the statements below?						
	Fully agree	Somewhat agree	No change	Somewhat disagree	Fully disagree	Don't know
Potential infringements of your own patents would need to be monitored in a wider geographical area						
The likelihood of others to initiate patent claims against the patentee's own patents would grow						
Extensive geographical protection facilitates expanding the company's operations to new markets						
Extensive geographical protection improves licensing opportunities						
Extensive geographical protection improves licensing value						
Total patenting costs aren't going to change significantly						

36.1. Notifications and comments:

37. If Finland is included in the unitary patent system, how do you feel the unitary patent and UPC would influence your company's patenting activity?						
	Increases significantly	Increases somewhat	No impact	Decreases somewhat	Decreases significantly	Don't know
Patenting in general						
Unitary patenting						
European patenting						
National patenting in Finland						
National utility models in Finland						
National patenting in other European countries						
National utility models in other European countries						

37.1. Notifications and comments:

38. If Finland is NOT included in the unitary patent system, how do you feel the unitary patent and UPC would influence your company's patenting activity?

	Increases significantly	Increases somewhat	No impact	Decreases somewhat	Decreases significantly	Don't know
Patenting in general						
Unitary patenting						
European patenting						
National patenting in Finland						
National utility models in Finland						
National patenting in other European countries						
National utility models in other European countries						

38.1. Notifications and comments:

39. Which factors would influence above-mentioned patenting and patenting solutions and in which way? (E.g. costs, language or court system)

40. With the unitary patent and UPC it is likely that there will be more competitors' patents valid in a wider geographical area in Europe. If Finland ratified the UPC Agreement, these patents would also be valid in Finland. What impact would this have in your company's operations?

	Fully agree	Somewhat agree	No change	Somewhat disagree	Fully disagree	Don't know
Competitors' unitary patents limit operational freedom in the UPC countries						
Monitoring your own operational freedom will become more laborious in the unitary patent agreement states						
Competitors' unitary patents prevent companies from expanding their operations to new markets						
The need to file claims against competitors' patents increases						
Unitary patents infringement and claims risk in UPC countries						
Competitors' unitary patents increase the company's licensing costs						
Need to increase own patenting activity in a wider geographical area						
Costs increase						

41. Other/justifications:

42. Once the unitary patent comes into effect, how would you feel this would impact non-EU companies' patenting activity in Europe?	Increased significantly
	Increased somewhat
	No impact
	Decreases somewhat
	Decreases significantly
	Don't know

42.1. Notifications and comments:

43. Currently in over 50% of EP applications the applicant's domicile is outside the EPC Agreement area. If the patenting activity of these Non-EU	Increased significantly
	Increased somewhat
	No impact
	Decreases somewhat
	Decreases significantly
	Don't know

43.1. Notifications and comments :

44. If the patenting activity of non-EU companies increased with the unitary patent, what problems or advantages would be associated with this in your opinion?

45. If there were fewer competitors' patents valid in Finland, would this make Finland more attractive as a country for your company's R&D?	Yes
	No
	Don't know

45.1. Notifications and comments:

46. If there were fewer [sic] competitors' patents valid in Finland, would this make Finland more attractive as a country for your company's R&D?	Yes
	No
	Don't know

46.1. Notifications and comments:

47. Would the unitary patent improve or hinder namely Finnish SMEs competitiveness or growth?

47.1. If improve, give details?

47.2. If hinder, give details??

48. How significant a method of protection would the unitary patent be for SMEs in a situation in which Finland ratifies the UPC Agreement?	Significant
	Moderately significant
	Not at all significant
	Don't know

48.1. Give details?

49. How significant a method of protection would the unitary patent be for SMEs in a situation in which Finland does NOT ratify the UPC Agreement?	Significant
	Moderately significant
	Not at all significant
	Don't know

49.1. Give details?

50. Do you feel national patents joint to an improved/more extensive PPH (Patent prosecution highway) system would be a viable alternative for European and unitary patents?

50.1. If yes, give details?

50.2. If no, give details?

51. In which countries/ country do you file applications of privilege in? (Choose one or several)	Finland
	European patent application
	Other EPC country, which?
	Other, which?

51.1 Other

51.2 Other

52. If your company is currently filing Finnish applications of privilege, please give details on the following:

	Important	Less Important	Not at all important	Don't know
Affordable (official prices low compared to EPO)				
Applications may be submitted in Finnish (or Swedish), importance of the possibility to use mother tongue				
The application may be directly submitted in English, only claims need to be translated				
Initial interim decision is quick to obtain before the priority year expires				
Patent is quick to obtain				

52.1. Other, please comment:

53. If the unitary patent and the UPC entered into force in Finland, it is possible that the Board of Patents and Registration's operational requirements would deteriorate. Do you feel it is important that the opportunity to apply for Finnish applications of privilege (and other national Finnish applications) applications is guaranteed in the future?

Yes
No

53.1. Give details?

54. How would the potential UPC Agreement ratification and the introduction of unitary patent affect your company in terms of using the services of the Board Patents and Registration (PRH)?	Reduced considerably
	Reduced somewhat
	No impact
	Increases to an extent
	Increases considerably
	Don't know

54.1. Notifications and comments:

55. Does the potential weakening of PRH's operational requirements endanger domestic companies' position in terms of innovation activity?	Significantly
	Somewhat
	Little
	Not at all
	Don't know

55.1. Notifications and comments:

56. How would the proposed UPC system change the current court system: How advantageous or disadvantageous would you find the following are to your company?						
	A lot of advantages	Some advantages	No major advantages or disadvantages	Some disadvantages	A lot of disadvantages	Don't know
UPC rulings on unitary patents are valid in all UPC countries						
UPC rulings on European patent cases are also valid in all UPC countries						
Patent trial rules are the same everywhere in the UPC area						
Patent can be annulled with a single trial affecting the entire UPC area						
Infringement injunction ruling would be valid in the entire UPC area						
In the future, unitary and European patent litigation would be handled in the UPC with regards to its Member States						
Finland is also included in the UPC area and establishes a Local UPC Division in Helsinki						
Finland is not part of the UPC-area						

56.1. Other/justifications/comments:

57. Which other advantages and disadvantages do you feel are related to UPC in comparison with the current patent court system? Which advantages?

57.2. Which disadvantages?

58. How do you feel your company's position in patent litigation would be affected when comparing the current court system and the UPC system?				
	Strengthens	Weakens	No significant impact	Don't know
As infringement claimant				
As infringement defendant				
Annulment case claimant				
Annulment case defendant				

59. In terms of your company, which advantages and disadvantages do you feel there would be in terms of patent disputes if Finland is included in the UPC Area and establishes a Local UPC Division in Helsinki? (You may answer one or both of the questions):

59.1. Which advantages?

59.2. Which disadvantages?

60. In terms of your company, which advantages and disadvantages do you feel there would be in terms of patent disputes if Finland was NOT included in the UPC Area (You may answer one or both of the questions):

60.1. Which advantages?

60.2. Which disadvantages?

61. Which advantages and disadvantages do you feel there would be that patent infringement and annulment cases for European patents valid in Finland would be tried in the UPC instead of national courts? (You may answer one or both of the questions):

61.1. Which advantages?

61.2. Which disadvantages?

62. What impact do you feel the unitary patent and UPC are going to have in terms of the number of patent disputes and litigation?	Disputes and litigations will increase
	Disputes and litigations will decrease
	No impact
	Don't know

62.1. Give details?

63. What impact do you feel UPC would have on costs related to your company's patent claims and litigation?	Costs will increase
	Costs will decrease
	No impact
	Don't know

63.1. Give details?

64. Is your view on UPC still reliant on some uncertain or unresolved matter (e.g. total final costs or administrative procedure)?	Yes
	No
	Your company doesn't have sufficient information on PUC

64.1. If you answered yes, what are these factors and how should they be resolved in your opinion?

65. All European patents enforces in UPC countries will fall under UPC's jurisdiction. During the transition period the company may, however, exclude (opt-out) its European patents from UPC's jurisdiction for the	All European patents opt-in (no action)
	All European patents opt-out
	The decision is made separately for each patent
	Don't know

65.1. Notifications and comments:

66. Which advantages or disadvantages would the UPC Agreement have on your company during the transition period:

66.2. Which disadvantages?

67. Should Finland ratify (nationally enforce) the UPC Agreement (assuming the Agreement is brought into force elsewhere regardless of Finland's decision)?	Yes
	Probably yes
	Depends on which other countries have ratified the Agreement
	Probably No
	No
	Don't know

67.1. Which are the major factors influencing your decision?

68. In your opinion, which of the following options would be most beneficial for your company?	Finland ratifies the UPC Agreement and it does not matter which other countries ratify it
	Finland ratifies the UPC Agreement if certain "Important countries" in addition to Britain, Germany and France also ratify the Agreement (see separate question below)
	Finland only ratifies the Agreement if all (or almost all) countries ratify the Agreement
	Finland waits until there is more experience of the system and ratifies the Agreement later
	Finland doesn't ratify the UPC Agreement but the system is adopted elsewhere
	UPC and unitary patent never materialise
	Don't know

68.1. Notifications and comments:

69. In your opinion, which of the following countries would need to be included in the UPC Agreement, in order for it to make sense for Finland to ratify the UPC Agreement? NB! UPC Agreement will not enter into force without the ratification by	Great Britain (UK)
	Germany (DE)
	France (FR)
	Ireland (IE)
	Luxembourg (LU)
	Netherlands (NL)
	Sweden (SE)
	Denmark (DK)
	Hungary (HU)
	Slovenia (SL)
	Lithuania (LT)
	Latvia (LV)
	Estonia (EE)
	Austria (AT)
	Belgium (BE)
	Bulgaria (BG)
	Cyprus (CY)
	Greece (GR)
	Malta (MT)
	Portugal (PT)
	Romania (RO)
	Czech (CZ)
	Slovakia (SK)
	Italy (IT)
	Spain (ES)
	Poland (PL)
	Croatia (HR)

69.1. Notifications and comments:

70. Compared to current European patents, would you feel the unitary patent is

	Fully agree	Somewhat agree	No change	Somewhat disagree	Fully disagree	Don't know
cheaper						
more efficient						
more competitive						
more legally secure						

70.1. Notifications and comments:**71. Compared to current patent court system, would you feel UPC is**

	Fully agree	Somewhat agree	No change	Somewhat disagree	Fully disagree	Don't know
cheaper						
more efficient						
more legally secure						

71.1. Notifications and comments:



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