

BERGGREN



UPDATES ON EUROPEAN IP LAW

FULL-SERVICE IP FIRM

11th Annual USCIPI Conference - Hong Kong
3 August 2019

Agenda for Today

- 1 - Introduction to IP in Europe
- 2 - Effects of Brexit on IP in Europe and the UK
- 3 - Updates on the Unitary Patent and Unified Patent Court
- 4 - Updates on Patenting Artificial Intelligence
- 5 - Selection of Important European Patent Practice Tips

Advantages of IP Protection in Europe

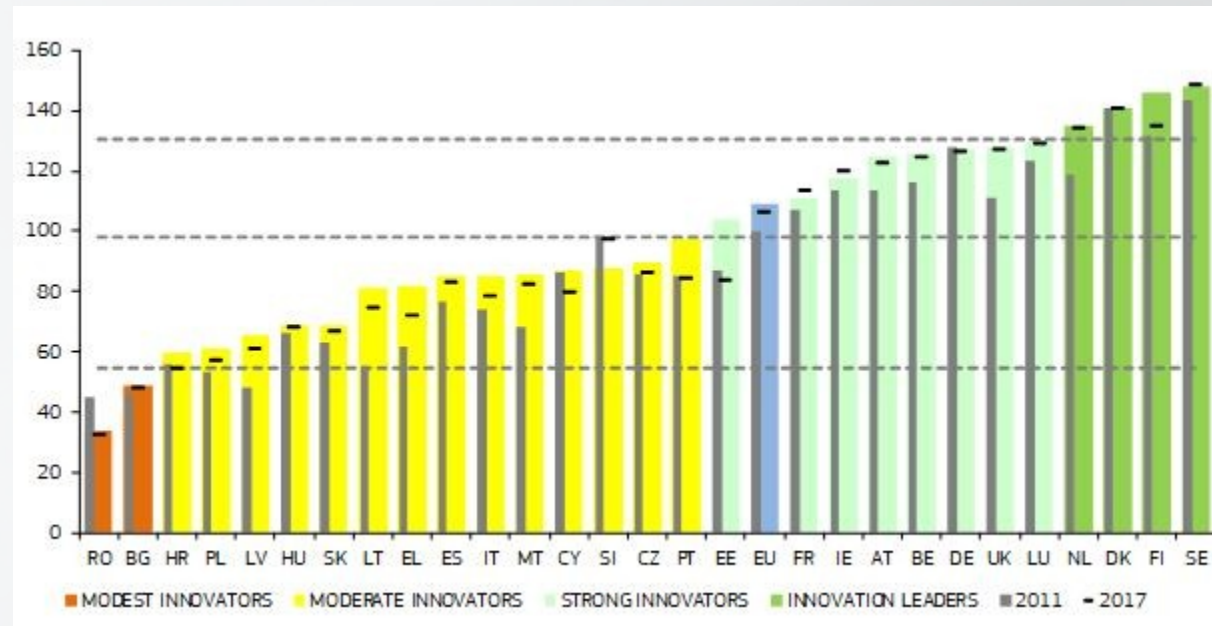
- Market of 600 million people
- 4 of the top 10 GDP Countries
- Collectively represents the 2nd largest GDP in the world

Advantages of European IP System compared to US

- Intellectual property law relatively harmonized
- Case law relatively stable: no disruptive judicial decisions such as *Alice*, *Myriad*, and *Mayo*
- Low cost of enforcement and defense



2019 Innovation Scoreboard by EU countries



Color columns show innovation performance in 2018; horizontal hyphens show performance in 2017; and grey columns show performance in 2011, all relative to the EU average which is shown in the blue column.

2019 European Innovation Scoreboard - Criteria

Human resources: the number of new doctorate graduates, lifelong learning and population segments that have completed tertiary education

Attractive research systems: openness in cooperation with partners from abroad, level of connections of researchers at the international level, and the quality of research output

Innovation-friendly environment: the degree of broadband penetration and degree of opportunity driven entrepreneurship

Finance and support: the degree of research and development spending in the public sector along with level of venture capital investments

Firm investments: the level of research and development spending in the business sector, the level of non-research and development spending and the extent of information and communications technology training

SME innovators: the degree of support for SMEs in introducing new products, novel processes and introducing marketing or organisational innovations

Linkages: the extent of innovative SMEs collaborating with others, public-private co-publications and private co-funding in public R&D activities

Intellectual assets: the number of trademark applications, design application and PCT patent applications

Employment impacts: the level of employment in knowledge-intensive activities and level of employment in fast-growing firms that work in innovative sectors

Sales Impacts: management and level of medium and high-tech product exports, knowledge-intensive services exports and sales of innovations to businesses and consumers

Brexit Effects on IP Law in Europe



- 23 July 2019, Boris Johnson was named as new Prime Minister of UK
- Chances of Brexit going forward as scheduled on 31 October 2019 have increased

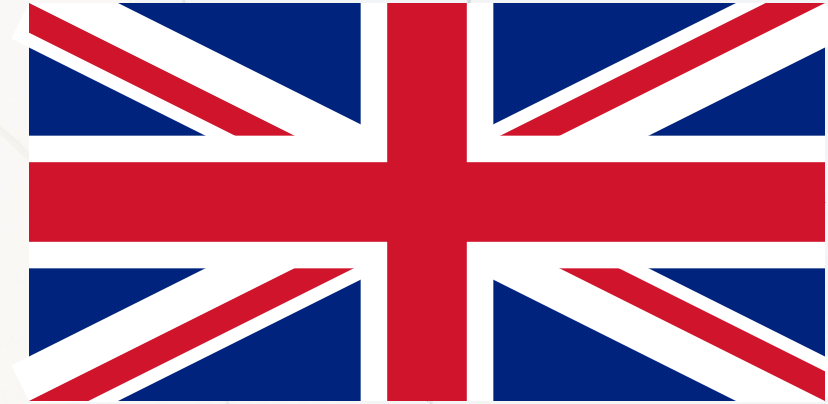
Brexit Effects on IP Law in Europe



What to look for over next 3 months:

- Exit via Withdrawal Agreement with EU
- So-called "No Deal" exit
- Further extension of 31 October 2019 deadline (recall that original deadline was 29 March 2019)

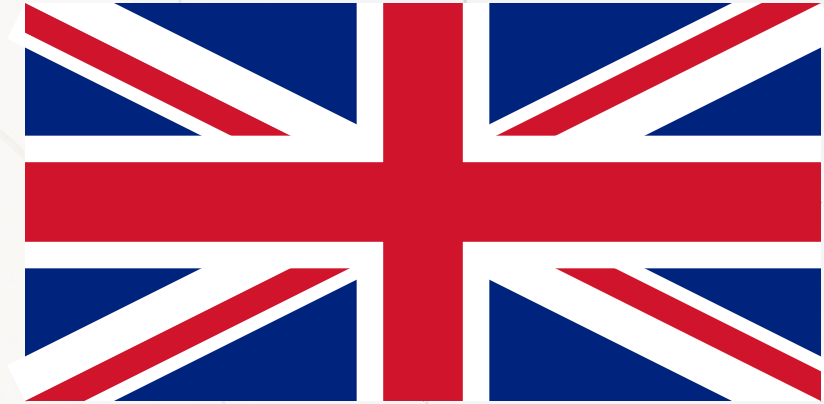
Brexit Effects on IP Law in Europe



Take Home Messages about Brexit Effects on IP

- whether through Withdrawal Agreement or No-Deal exit, both the UK and the EU wish to minimize impact of Brexit on IP-right holders
- main difference is that No Deal exit does not include a transition period

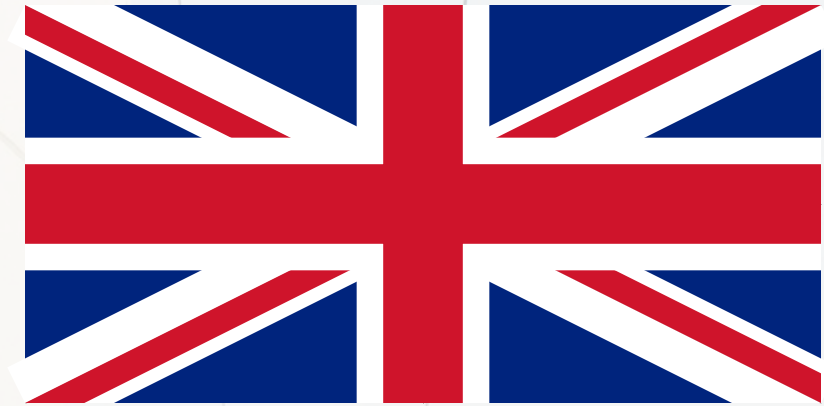
Brexit Effects on IP Law in Europe



Intellectual Property Rights to Consider:

- patents - small effect
- trademarks - significant effect
- design rights - significant effect

Effects on Patents in Europe



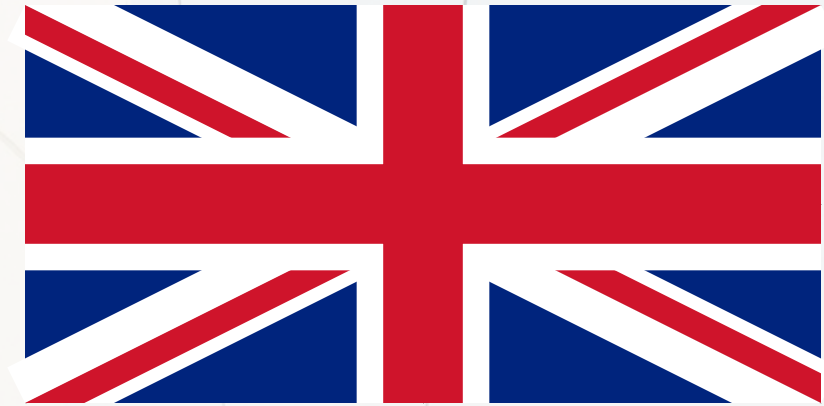
- No significant effect since an EP patent covers more than the EU since the EU countries and the EPC countries are not the same
- Potential effect on Supplemental Protection Certificates ("SPCs")
- Brexit effect on upcoming(?) Unitary Patent and Unified Patent Court

Effects on Registered EUTMs and RCDs



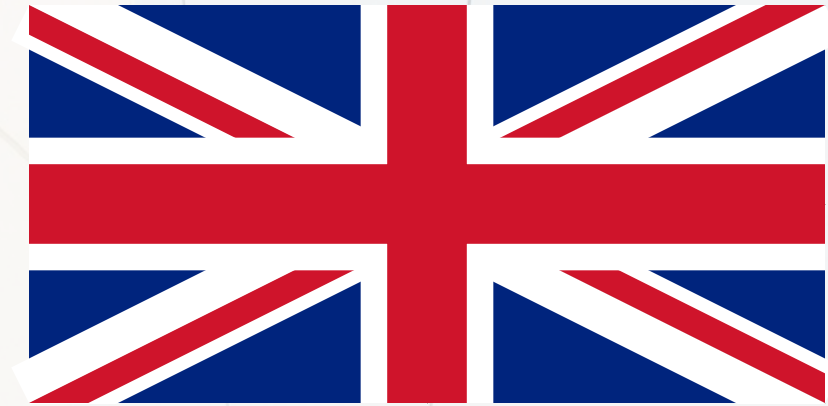
Whether through a formal Withdrawal Agreement with the EU or a so-called "No-Deal" exit, the UK will allow automatic conversion of Registered European Trademarks and European Registered Community Designs to corresponding UK national rights, at no cost.

Effect on EU Trademark and Design Applications



- Planned 9-month period after the date of Brexit to file a corresponding application with the UK intellectual property office ("the UKIPO")
- Normal UKIPO fees will apply

International Design and Trademark Applications



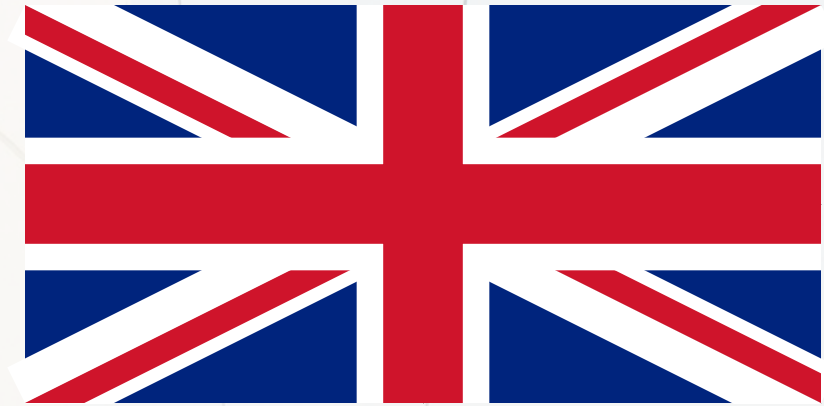
- Similar arrangement being discussed between WIPO and the UK
- EU designation will be considered to be effective as a UK designation

Unregistered Designs and Geographical Indications



- The EU recognizes both of these IP rights but the UK itself has no corresponding national rights.
- Nevertheless, the UK plans to recognize such rights and also plans to introduce corresponding national rights.

Potential Representation Issues



- UK IP professionals may not be able to represent clients on EU design and trademark matters, because such professionals will no longer be practicing in the EU.
- If exit occurs pursuant to formal Withdrawal Agreement, there will be a transition period until the end of 2020 where UK IP professionals can continue to work on such matters.
- In response, some UK firms have established small offices in other EU countries (in order to continue having a presence in the EU), for example, in Ireland, Sweden, and the Netherlands.

Important! EPC covers 44 countries, while EU covers 28

Map showing the geographic coverage of European patents as of 1 March 2019

■ Member states (38)

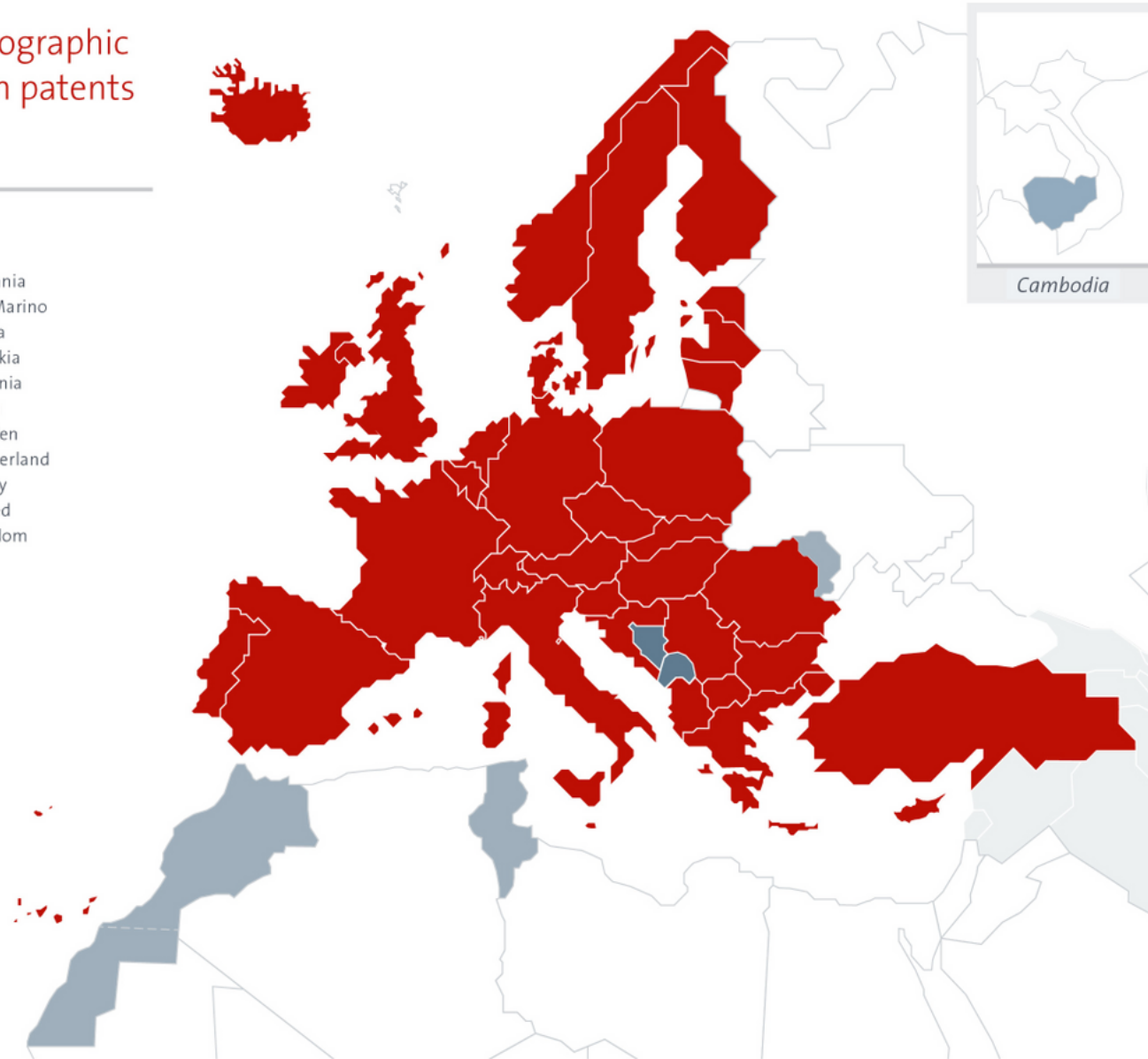
- | | | |
|------------------|-------------------|------------------|
| - Albania | - Iceland | - Romania |
| - Austria | - Ireland | - San Marino |
| - Belgium | - Italy | - Serbia |
| - Bulgaria | - Latvia | - Slovakia |
| - Croatia | - Liechtenstein | - Slovenia |
| - Cyprus | - Lithuania | - Spain |
| - Czech Republic | - Luxembourg | - Sweden |
| - Denmark | - Malta | - Switzerland |
| - Estonia | - Monaco | - Turkey |
| - Finland | - Netherlands | - United Kingdom |
| - France | - North Macedonia | |
| - Germany | - Norway | |
| - Greece | - Poland | |
| - Hungary | - Portugal | |

■ Extension states (2)

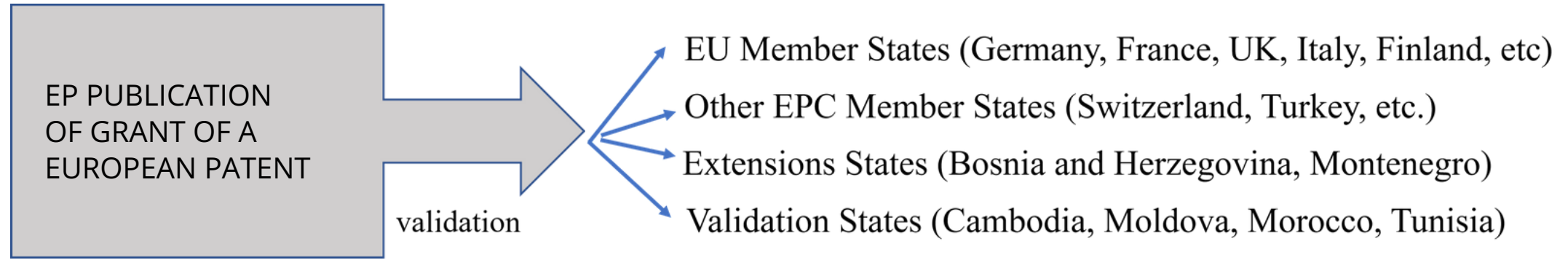
- Bosnia and Herzegovina
- Montenegro

■ Validation states (4)

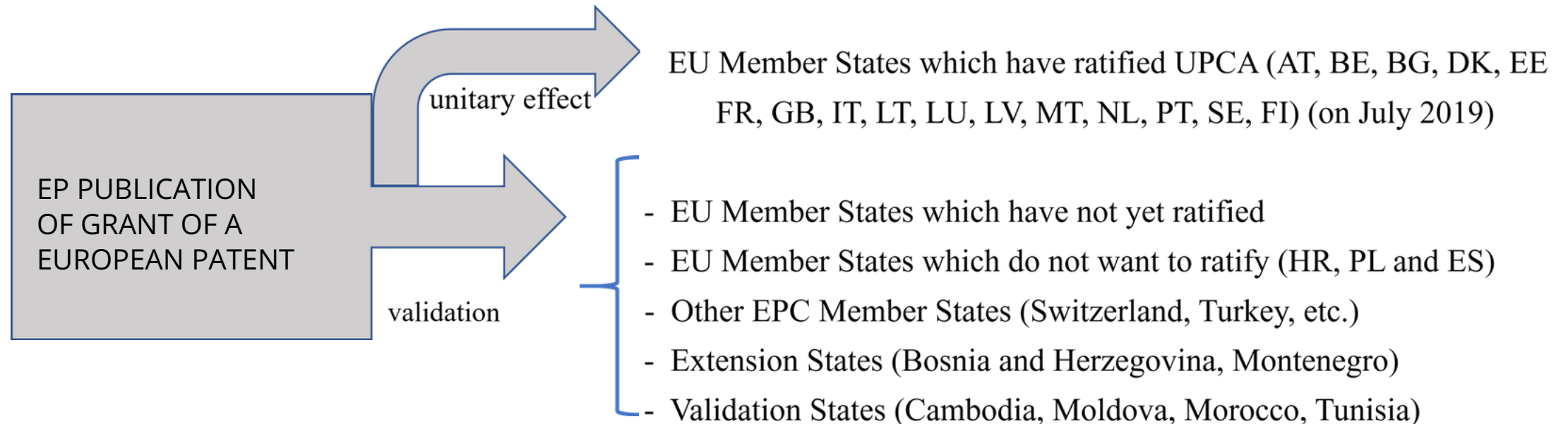
- Cambodia
- Republic of Moldova
- Morocco
- Tunisia

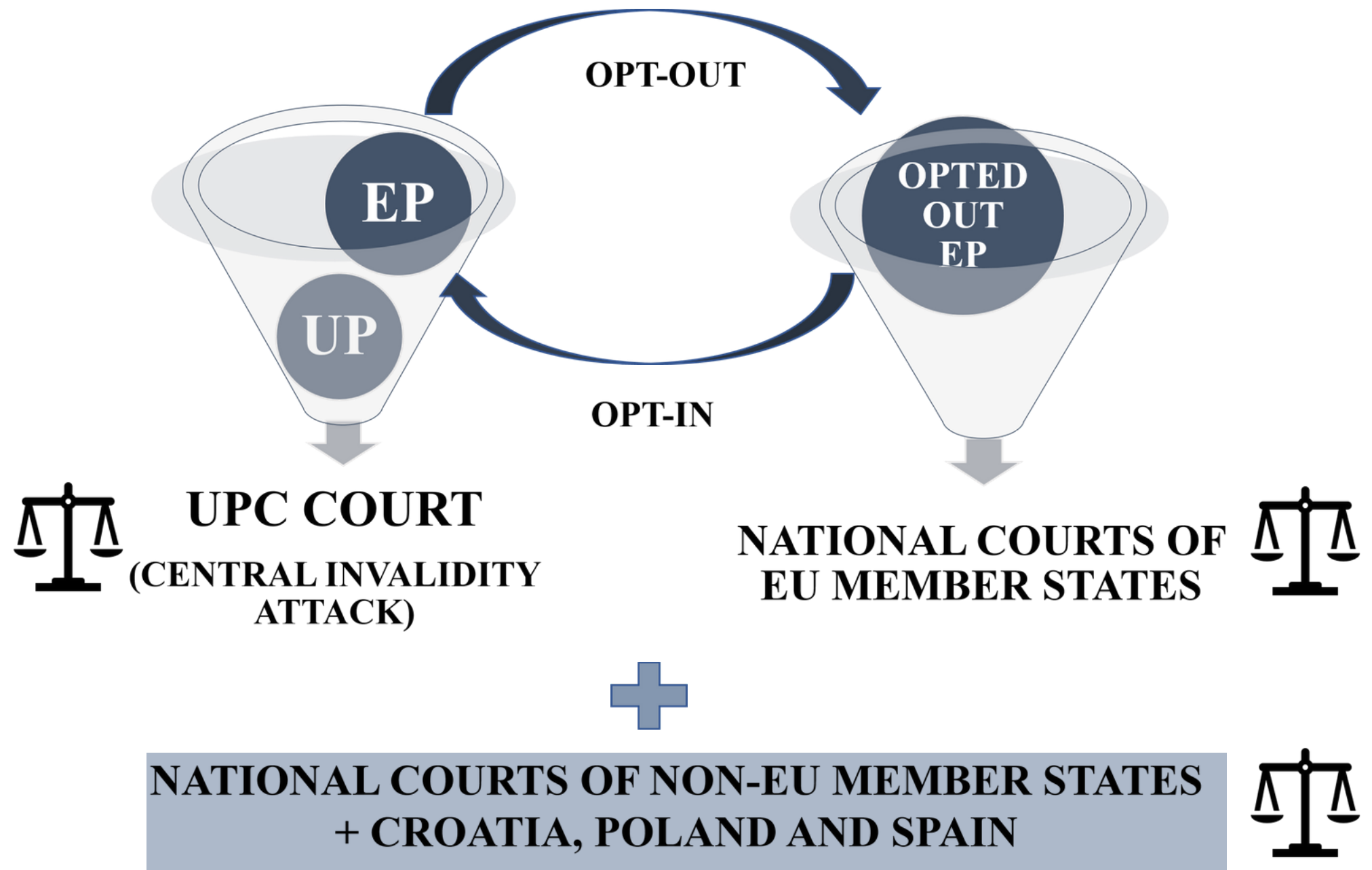


PROCEDURE AFTER GRANT OF A EUROPEAN PATENT



PROCEDURE AFTER GRANT OF A UNITARY PATENT





OPT-OUT CHECKLIST:

- ONLY the owners / applicants may opt-out: negotiate entitlement to decide in license agreements
- ALL the owners / applicants must opt-out: check co-ownership of European patents / applications
- Unless the licensing agreement provides otherwise, exclusive licensees may bring an action for infringement before the UPC which would prevent owners / applicants from opting-out: check litigation provisions in license agreements

IP LAW in EUROPE and the 4th Industrial Revolution Developments over last 20 months

- (1) December 2017: EPO published a report on "Patents and the Fourth Industrial Revolution"**
- (2) 25 May 2018: the EU General Data Protection Regulation ("the GDPR") n. 2016/679 entered into effect**
- (3) 1 November 2018: the EPO issued new guidelines which include a completely new section on patentability of AI and machine learning**
- (4) 31 January 2019: WIPO published its first "Technology Trends" study on Artificial Intelligence**
- (5) June 2019: EPO published an academic study on AI inventorship (authored by Dr. Noam Shemtov of Queen Mary University of London)**

PATENTABILITY OF AI

Latest EPO Guidelines include new information on patentability of AI and machine learning (1 November 2018), which:

- provide new section G-II 3.3 see, www.epo.org/law-practice/legal-texts/html/guidelines2018/e/g_ii_3_3_1.htm
- include several specific examples of how the current EPO legal framework applies to AI
- indicate that the same general approach to computer implemented inventions is likewise relevant to AI inventions

PATENTABILITY OF AI

More specifically, the new EPO guidelines clarify that:
"Artificial intelligence and machine learning are based on computational models and algorithms [which] are *per se* of an abstract mathematical nature" (and thus *per se* not patentable)

EPO applies a two-hurdle approach (like approach used for computer implemented inventions generally)

PATENTABILITY OF AI

TWO-HURDLE APPROACH

(1) eligibility (art. 52.2 and 52.3 EPC): the claimed subject-matter must have a technical character. "Expressions such as "support vector machine", "reasoning engine" or "neural network" are looked at carefully, because they usually refer to abstract models devoid of technical character". Claims should be drafted pursuant to the Guidelines (CII).

(2) novelty and inventive step (art. 54 and 56 EPC): the claimed subject matter must serve a technical purpose. AI and ML should contribute to the technical character of the invention: restrict the claims to a specific technical implementation or application (e.g. the use of a neural network in a heart-monitoring apparatus for the purpose of identifying irregular heartbeats)

INVENTORSHIP OF AI

The EPO (and other jurisdictions) requires that the inventor be a human.

Who should be considered the owner / inventor of inventions resulting from AI systems?

Three approaches have been discussed:

- the owner of the AI system
- the designer of the AI system
- the AI system user

Which of the above do you think makes the most sense?

Stay tuned as developments in relevant law typically lag well behind advances in technology.

A SELECTION OF IMPORTANT EUROPEAN PATENT PROSECUTION ISSUES

- Proper claiming of priority rights: Don't make the CRISPR mistake!
- Restoring priority claims in Europe when Paris Convention deadline is missed: Please know that it is not easy!
- Claim Amendment Checklist in Europe: USPTO and EPO are very different!
- Strategic use of Oral Proceedings by video: Underused means for advancing prosecution of your European patent application!

EPC Article 87 – Priority Rights

- (1) **Any person** who has duly filed in or for
- (a) any State party to the Paris Convention for the Protection of Industrial Property or
 - (b) any member of the WTO,

an application for a patent ... or his successor in title, shall enjoy, for the purpose of filing a European patent application in respect of the same invention, a right of priority during a period of twelve months from the date of filing of the first application.

The ABCs of Priority Rights

Priority Application <-----> PCT Application

A+B+C
applicants

A*+B*+C*
applicants

*or successor in
title

Invalidity of EP2771468 - CRISPR Technology

Priority Application <-----> PCT Application

11 applicants
The Broad Institute
and Rockefeller University

9 applicants
The Broad Institute

Legal Background:

EPC Art. 87 refers to "any applicant" which has been interpreted by the EPO as requiring all applicants.

In contrast, in the United States a valid priority claim only requires at least one inventor in common.

Which law should apply - European law or US law?

Invalidity of EP2771468 - CRISPR Technology

Priority Application <-----> PCT Application

Significance of loss of priority: Without a valid priority claim, publications between the filing date of a priority application and the filing date of a PCT application would be considered novelty-destroying prior art to the extent such publication(s) disclosed the claims of a European patent.

In the CRISPR case such a publication occurred shortly after the filing date of the priority application.

Decision: The EPO Opposition Division held that European patent law should apply (which requires all applicants) and therefore the patent was invalid since the effective filing date was the filing date of the PCT application and the scientific article was published earlier.

This decision is currently before the EPO's Board of Appeal.

PCT 26bis.3 Restoration of Priority by Receiving Office

- (a) Where the international application has an international filing date which is later than the date on which the priority period expired but is within the period of two months from the date, the Receiving Office shall, on the request of the Applicant ... restore the right of priority if the Office finds... that the criterion for restoration is satisfied, namely, that the failure to file the international application within the priority period:
- (i) occurred in spite of due care
 - (ii) was unintentional

Restoration of Priority Rights

In order for the priority claim to be valid in procedures before the EPO, an applicant must file a request for restoration, if in procedures before the PCT Receiving Office:

- no request for restoration of priority right was filed
- a request for restoration of priority right was rejected by the PCT Receiving Office
- a request for restoration of priority right was granted by the PCT Receiving Office, but only under the “unintentional criterion”

Claim Amendments Under EPC Article 123

Under EPC Article 123(2) the European patent application...may not be amended in such a way that it contains subject matter which extends beyond the content of the application as filed.

The underlying idea behind EP Article 123(2) is that an applicant should not be allowed to improve its position by adding subject matter which was not disclosed in the application as filed, which would give it an unwarranted advantage and could be damaging to the legal security of 3rd parties relying on the content of the original application.

Claim Amendment Checklist

- Specifically identify where support for the amendment can be found
- Avoid taking support from different parts of the specification which would violate the prohibition against “intermediate generalization”
- Normally cannot rely on drawings for support
- Cannot use unsearched subject matter in claim amendments

EPC Article 116 – Oral Proceedings

(1) Under EPC Article 116 oral proceedings shall take place either at the instance of the EPO if it considers this to be expedient or at the request of any party to the proceedings.


(3) Oral proceedings before the Receiving Section, the Examining Divisions and the Legal Division shall not be public.

Oral Proceedings During Examination

- Usually can be done by video conference – no need to travel to Munich
- Can introduce and argue the patentability of several different "backup" auxiliary claims sets
- Effective way to overcome outstanding issues when the EPO has issued a final rejection of the claims
- Proceedings during examination are not open to the public
- Decision issued at end of oral proceedings
- Adverse decision can be appealed

*Hot off the presses – in the future, 3rd parties, including inventors and non-European IP firms, may be able to participate in oral proceedings with a 3rd video connection. STAY TUNED!

FULL-SERVICE IP HOUSE

-  Making IP part of your business success
-  Protecting the technological competitive advantage
-  Brand and design protection
-  Systematic management of IP risks and the contractual environment
-  Maximizing the business potential of IP



FOUNDED

1936



EXPERTS

170



PROTECTED NEW INVENTIONS / YEAR

500+



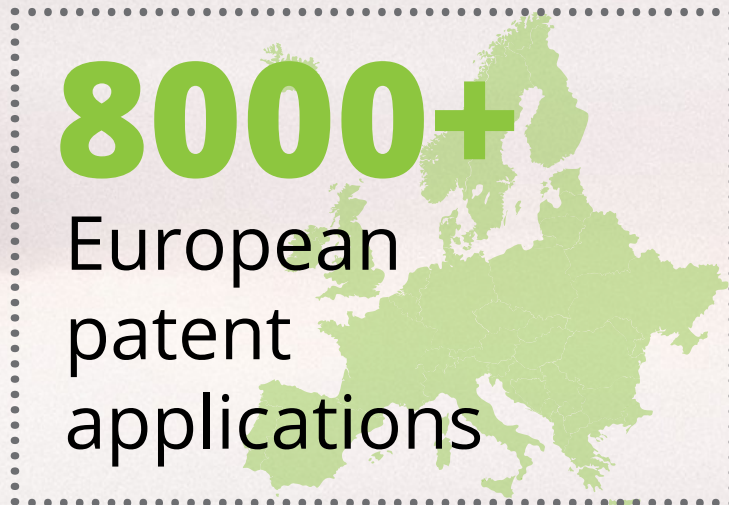
EU TRADEMARK APPLICATIONS

3500+



8000+

European
patent
applications



CLIENTS



4000+

TURNOVER / YEAR

30m€

IP ASSIGNMENTS

75000+

BERGGREN'S TOP PROFESSIONALS

- More than 170 IP professionals
- 70 European Patent Attorneys, Patent Attorneys and Patent Agents
- 20 IP Lawyers, EU Trademark and Design Attorneys
- 20 IP Management and Commercialization Specialists
- More than 50 Paralegal and IP Specialists

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BROKERAGE**



ROBERT ALDERSON



International Business Development,
United States Patent Attorney,
European Patent Attorney

+39 347 493 0483

+358 10 227 2000

robert.alderson@berggren.fi



Robert is one of a very small number of intellectual property attorneys working at a European IP firm who has a law degree from the United States and is qualified to practice before both the United States Patent and Trademark Office and the European Patent Office.

In his professional capacity, Robert has a great deal of experience in patent prosecution, litigation, licensing, opinion letter-writing, and IP due diligence matters.

MARIELLA MASSARO



International Business Development,
IP Strategist

+358 45 788 14178

+358 10 227 2000

mariella.massaro@berggren.fi



Mariella is primarily focused on international business development.

She has been a frequent speaker at international events and workshops on a variety of IP issues, including AI, IoT and SEPs in China, South Korea, Russia, the United States and Italy. She has also authored several articles on IP matters from a European and comparative law perspective.