## Patent Lawyer

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The Patent Lawyer Editorial Board looks back at 2023 to summarize key cases and developments by jurisdiction.

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Annual 2024



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### THE PATENT LAWYER Issue 69

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elcome to *The Patent Lawyer Annual 2024*. This year has seen many key developments that will affect IP practice moving forward. To reflect, our 2023 Editorial Board have provided jurisdiction-specific reviews with their take on events. With comments from Canada, Germany, India, Japan, the UK, and the US, these reviews provide an overview of some of the important factors that will influence IP in 2024 and beyond.

In addition, this issue includes an exclusive interview with the UK IPO regarding the launch of their new digital services, designed to be more streamlined than ever before for a user-centric focus from both a patent

professional and owner perspective.

We wish you a very happy and healthy 2024!

From here, we take a look at the benefits and pitfalls of patent term adjustment and patent term extension in the US; introduce the new examination guidelines for utility patents in China; explore patenting the future of quantum software; assess how to best prepare for litigation at the UPC; review the abolishment of the 10-day rule in Europe; and much more!

Our Women in IP Leadership segment

features Maria Boicova-Wynants, Partner at Starks, and Sandra Pohlman, Co-founder and Partner at df-mp, discussing challenges, achievements and ideas for continuing the empowerment of women in the industry.

Also find a special feature on prioritizing wellbeing in the IP profession – a vital subject that, in our opinion, requires much-needed attention.

Thank you to all our contributors and readers for another fantastic year, we wish you a very happy and healthy 2024!

Enjoy the issue.

fage Waterford, Editor

#### **Mission statement**

The Patent Lawyer educates and informs professionals working in the industry by disseminating and expanding knowledge globally. It features articles written by people at the top of their fields of expertise, which contain not just the facts but analysis and opinion. Important judgments are examined in case studies and topical issues are reviewed in longer feature articles. All of this and the top news stories are brought to your desk via the printed magazine or the website <a href="https://www.patentlawyermagazine.com">www.patentlawyermagazine.com</a>

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Pravin Anand: Managing Partner, Anand & Anand. India

In a career spanning over four decades, Pravin has emerged as an IP trailblazer having strengthened India's IP jurisprudence with a practice encompassing all areas of IP litigation including patents, copyright, design, trademarks, enforcement and dispute resolution.



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Eugene is an experienced trial lawyer that represents clients in complex patent matters involving diverse technologies. He has extensive experience and regularly serves as first-chair trial counsel in post-grant review trials (IPR, CBMR, PGR) on behalf of both Petitioners and Patent Owners at the USPTO.



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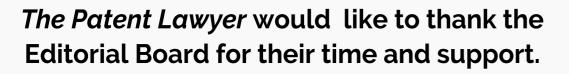
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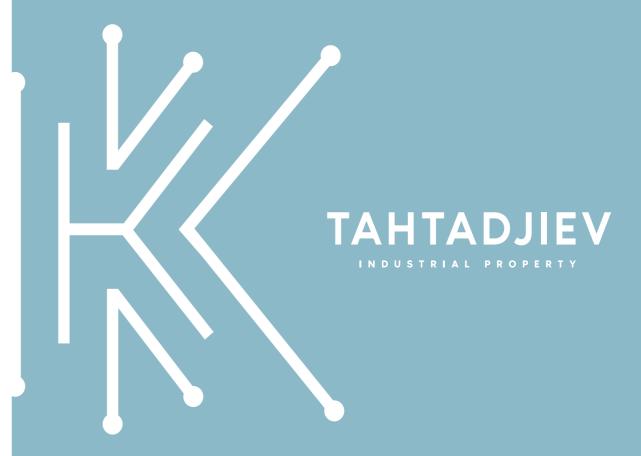
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Bulgarian & European Trademark & Design Attorney



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#### 2023 in Review

As we welcome a new year, we asked our Editorial Board to provide their take on 2023's key takeaways to inform of key developments that will influence IP practice in 2024 and beyond.

The following reviews include President Biden issuing an Executive Order that seeks to establish a new national policy for the development, training, and implementation of AI tools in the US; an overview of significant US Supreme Court IP cases; an update on the developments in pharma, computer software, and inflation in Canada; a breakdown of the implementation and running of the Intellectual Property Division of the Delhi High Court; a discussion on plausibility in the UK Supreme Court; and – of course – a review of the implementation of the UPC. Our Editorial Board members have delivered a summary of their take on 2023.

We would like to take this opportunity to thank our Editorial Board for their continued support and hard work throughout the year. Please visit page 6 to familiarize yourself with each member's profile.

If you would like to learn more about our Editorial Board or apply for 2025, please visit www. patentlawyermagazine.com/editorial-board-applications/

## A review from Canada

#### Noel Courage, Bereskin & Parr LLP

Pharma - There was good news for pharma patent owners in a Federal Court of Appeal case. It involved innovator company Janssen enforcing a patent against Teva. The patent was for prefilled syringes of paliperidone formulation<sup>1</sup> and various dosing elements. This drug treats schizophrenia. This basis for the infringement was inducing infringement. The infringing use was listed among various non-infringing uses in Teva's regulatory documents, the product monograph, and the product label. However, nobody except the physician and patient ultimately knows whether each specific treatment is a patented use or not. Since Teva listed all the patented elements in its monograph, including dosage elements, it knowingly exerted influence that would result in infringement on some occurrences. Janssen got an injunction to keep Teva off the market until patent expiry.

Computer software - A hotly-anticipated decision on patent eligibility of computer-implemented inventions landed with a disappointing thud for patent practitioners. The Federal Court of Appeal decision in the Benjamin Moore case involved a selection system for a user to pick colors<sup>2</sup>. The Canadian Intellectual Property Office had for years been relying on its own practice notices regarding subject-matter eligibility. These practice notices permit disregarding certain claim elements when assessing subject matter eligibility. Many patent agents had objected to these practice notices as not based in law. The lower court had been amenable to a three-party assessment framework proposed by the Intellectual Property Institute of Canada. However, the Appeal Court punted that framework and instructed CIPO to assess subject matter eligibility based on CIPO's practice manual, in light of the court's reasons. CIPO has not as of the date of writing this article completed its assessment, so stay tuned, this saga is just rebooting.

Inflation - In June, CIPO announced that most fees will increase by 25% beyond the usual annual increase. For applicants, it is worth considering bringing forward actions in 2023 to get the lower fee rate, particularly for due dates in 2024 that the Applicant knows it intends to undertake.

## A review from Germany

#### Stefan Schohe, Boehmert & Boehmert

On June 1 of this year, the Unified Patent Court (UPC) came into operation. The UPC is an international court that is independent of any national court system and follows its own procedural rules. It has the power to decide on the infringement of European patents with effect for the, currently, 17 member states of the Agreement on the UPC and to revoke European patents with effect for these states. It comprises a Court of First Instance and a Court of Appeal, the Court of First Instance consists of a central division, a regional division, and 13 local divisions, four of which are located in Germany. Each panel sits in a multinational composition and can have a technically qualified judge assigned to it, depending on the procedure.

Meanwhile, quite a number of decisions of the local divisions in Germany have been published. As most procedures are still pending, the majority of these relate to procedural issues, such as admissibility of actions, terms, security for the cost of the proceedings, and the like. Compared to national decisions, they are fairly detailed, which reflects the fact that this court still needs to establish its own case law and practice. There are, however, already first decisions on the merits in temporary injunction proceedings. The local division at Düsseldorf granted an ex parte temporary injunction within one day, three weeks after the start of the operation of the court. The local division at Munich granted a temporary injunction in inter partes proceedings this September. Both decisions are detailed and well-written. In particular, the Munich decision deals with the full spectrum of issues in temporary injunction proceedings in an impressive 113 pages, showing that the new court is capable of hearing and deciding complex cases efficiently within a fairly short time, which was about four months in this instance. All in all, judging from their first decisions, the German local divisions are certainly a match for any national court.

Judging from its start, the UPC appears to be on the right track to establishing itself as a major player in European litigation.

## A review from India

#### Pravin Anand, Anand & Anand

The Intellectual Property Division (IPD) created before the Delhi High Court in March 2022 has been successful. Since October 2023, two, rather than three, judges have been assigned exclusively to IP matters. 442 cases were decided between March '22 and September '23 (including 311 trademark, 95 patent, 18 copyright, and nine design cases).

These cases have involved outstanding issues:

- A. In *Intex v. Ericsson and Nokia v. Oppo.*, The Division Bench upheld the rights of SEP owners Ericsson and Nokia holding:
- The plaintiff has the right to seek protem security at the beginning of a lawsuit without the court getting into invalidity, essentiality, etc.
- If the defendant had a past license, any amount offered by them as a counteroffer or paid under the previous agreement could be the basis for computing protem security.
- Nonfurnishing of comparable patent license agreements by the plaintiff was irrelevant in calculating security.
- A single patent could be used to restrain defendants.
- The statement by implementors that devices conform to the standards is sufficient to establish infringement.
- Courts should give interim injunctions against unwilling licensees.
- B. In the *Amitabh Bachchan* case, dealing with personality rights, an injunction was granted restraining misuse of renditions of the actor's personality. Bachchan's case stirred fake news regarding the health of a 12-year-old child; the court established zero tolerance. Actor Anil Kapoor's case saw the restraint of generative AI and deep fakes use as they affected privacy/publicity rights.
- C. In *Syngenta v. Controller of Patents*, the court held that an applicant could divide the application under Section 16 of the Patents Act even if the Controller has not raised a unity of invention challenge. Plurality of the invention needn't be disclosed in the application claim if disclosed in the specification.
- D. In *Communication v. Rosenberger*, a fast-track trial saw evidence recorded before the judge using live transcription technology, resulting in completion of evidence in two days. This has molded new procedures within the Code of Civil Procedure.
- E. In addition to Delhi, Kolkata, Chennai, and Mumbai,21 High Courts were involved in IP cases.

<sup>&</sup>lt;sup>1</sup> Teva Canada Limited v. Janssen Inc., 2023 FCA 68

<sup>&</sup>lt;sup>2</sup> Canada (Attorney General) v. Benjamin Moore & Co, 2023 FCA 168.



## A review from Japan

#### Osamu Yamamoto, Yuasa & Hara

Two IP High Court decisions with impact were issued in 2023, one relating to a network-type system patent, and the other to an antibody patent.

#### DWANGO Co., Ltd. v. FC2

The Grand Panel of the IP High Court overturned the Tokyo District Court decision on May 26, 2023 (2022 (Ne) 10046). The issue was whether a system claim with a server and a user terminal is infringed when the server comprising the defendant's system is located outside Japan.

DWANGO's patent JP 6526304 claims a computer system to send comments within a video screen. The District Court turned down DWANGO's arguments stating that FC2's servers were located outside of Japan. Following the appeal by DWANGO, the IP High Court used its prerogative to seek third-party opinions, the Japanese version of Amicus Brief, for the first time, and received 52 opinions.

The Grand Panel concluded that FC2 infringed DWANGO's patent, in comprehensive consideration of the specific manner of the act, the function and role played in the invention by the elements constituting the system, and the location where the effect of the invention can be obtained, etc.

#### Amgen v. Regeneron

Amgen owns functionally claimed antibody patents JP 5,705,288 and JP 5,906,333. The IP High Court handed down decisions on 26 January 2023 (2021 (Gyo-ke) 10093 and 10094), revoking the JPO's decisions, judging that the support requirement was not met. These were the appeal cases of Invalidation Trials filed by Regeneron in 2020, in which it was decided, on April 7, 2021, that neither patent can be invalidated.

Note that the conclusions of the decisions of the IP High Court are different from those previously judged on the Invalidation Trials filed by Sanofi against the same patents.

The court pointed out that the claimed 'antibodies that compete with 21B12 or 31H4 antibody for binding to PCSK9' are not limited to antibodies that bind to the same or overlapping PCSK9 binding positions as the reference antibody; rather, they also include antibodies that bind to PCSK9 in a manner that sterically inhibits the binding between PCSK9 and LDLR protein, which are not supported by the specification.

## A review from the UK

#### Sarah Taylor, Pinsent Masons LLP

Despite the UPC dominating headlines in 2023, there have been significant developments in UK patent law which will pique international interest.

Patents have again taken center stage before the UK's highest court – the Supreme Court ('UKSC'). In March 2023, the UKSC considered the question of whether AI systems can own and transfer patent rights in *Thaler v. Comptroller-General*<sup>1</sup>. This has been litigated in various jurisdictions, but the UKSC was the first supreme-level court in the world to hear the issues. At the time of writing, a decision is still pending. While laws on this issue will need to be internationally aligned, the progress of the UK case is likely to prompt earlier international

Patents will continue to keep the UKSC busy in 2024. This is because one issue before the lower courts in 2023 - plausibility – is likely to make its way back to the UKSC.

In March 2023, the EPO's Enlarged Board of Appeal clarified that plausibility is not a distinct condition for patentability (G2/21). A few weeks later, plausibility came before the UK Court of Appeal ('CoA') in Sandoz & Teva v. Bristol-Myers Squibb<sup>2</sup>. The CoA had to reconcile G2/21 with a UKSC precedent (Warner-Lambert v. Actavis<sup>3</sup>) that plausibility it is a legal concept and a requirement for grant. The court found that the underlying plausibility principles espoused in Warner-Lambert were applicable to all types of patent claim, and it was bound by that precedent. It therefore upheld the High Court's earlier decision, which meant that plausibility was the single ground on which validity was determined.

The UK's approach to plausibility therefore diverges from the EPO and European national courts. However, it is not the end of the story. Plausibility will again come before the UKSC in *FibroGen v. Akebia*<sup>4</sup> in March 2024. There are also unconfirmed rumors that BMS has sought permission to appeal to the UKSC. If granted, it would seem sensible for both cases to be heard together.

Patents will therefore continue to engage the UKSC, and attract international attention, in 2024.

- 2021/0201
- 2 [2023] EWCA Civ 472
- [2018] UKSC 56
- 4 [2021] EWCA 1279

## A review from the US

#### Mark G. Bloom, CLP®, RTTP™, NSABP Foundation Inc.

2023 has been a busy year for the US Supreme Court (SCOTUS) in IP. Significant cases include the following. *Jack Daniel's Properties, Inc. v. VIP Products LLC*599 US (2023)

VIP made a chewable dog toy resembling Jack Daniel's whiskey bottle and used the phrases "Bad Spaniels" and "The Old No. 2 On Your Tennessee Carpet." In contrast, the famous marks are "Jack Daniels" and "Old No. 7 Brand Tennessee Sour Mash Whiskey." Jack Daniel's demanded that VIP stop marketing the dog toy.

SCOTUS ruled that the Lanham Act's parody-, criticism-, or commentary-based liability protection against trademark dilution claims is unavailable when the alleged diluter uses a mark as a source designator for its own commercial goods.

Andy Warhol Foundation for Visual Arts, Inc. (AWF) v. Goldsmith 598 US \_\_\_\_\_ (2023)

In 1984, Lynn Goldsmith, a portrait artist, granted Vanity Fair a one-time license to use a photograph of the musician Prince in a magazine story about him. Vanity Fair then hired Warhol, who made a silkscreen using Goldsmith's photo, for which she had been paid \$400 by Vanity Fair. Warhol used Goldsmith's photograph to create additional works, one of which was licensed to Condé Nast. The AWF received \$10,000 for the Warhol work while Goldsmith received nothing. When Goldsmith asserted copyright infringement, AWF sued her. The district court granted AWF summary judgment based on the "fair use" doctrine, which the Second Circuit reversed.

SCOTUS rejected AWF's "fair use" claim concerning a Warhol silkscreen made from a copyright-protected photograph in a copyright dispute.

Amgen Inc. v. Sanofi 598 US

PCSK9 is a protein that prevents LDL cholesterol from being extracted from the bloodstream. Amgen and Sanofi each obtained a patent for a druggable PCSKP-inhibiting antibody, describing the antibodies by their amino acid sequences. Amgen subsequently obtained two additional patents and tried to claim the "entire genus" of PCSK9-inhibiting antibodies. Amgen identified the amino acid sequences of 26 relevant antibodies but described

laboratory methods for making additional antibodies. SCOTUS agreed that the PCSK9-inhibiting antibody patents were invalid for a lack of enablement for essentially describing a "research assignment."

## A review from the US

#### **Eugene Goryunov, Haynes & Boone**

Artificial intelligence (AI) and its potential use continues to make headlines. After a year of discussions and considerations, on October 30, 2023, President Biden issued an Executive Order that seeks to establish new national policy for the development, training, and implementation of AI tools.

The Executive Order includes various government mandates. It requires, for example, the US Patent and Trademark Office (USPTO) to issue guidance to patent examiners and applicants that addresses inventorship and the use of AI in innovation. The guidance may also address patent eligibility of AI inventions, a hot topic in the US legal community. The USPTO Director is also to recommend potential executive actions relating to copyright as it relates to works produced using AI. In turn, the Department of Homeland Security (DHS) is directed to develop training, analysis, and evaluation programs to mitigate AI-related IP risks and adapt IP enforcement strategies to curtail IP theft. The National Institute of Standards and Technology (NIST) is instructed to develop rigorous standards, tools, and tests to help ensure that AI systems are safe, secure, and trustworthy. And Federal agencies are urged to promote responsible innovation, competition, and collaboration to allow the US to lead in AI and unlock the technology's

The Execute Order impacts private industry as well. It requires developers of AI systems to share their safety test results and other critical information with the US government. Any company that develops a foundation model that poses a risk to national security, national economic security, or national public health and safety is required to notify the federal government when training the model. It must also share the results of all safety tests before those AI tools are made available to the public.

The Executive Order takes a bold step forward to set up a policy that broadly impacts those that develop and train AI models, government or private industry. The fact of its issuance highlights the importance AI plays today and the potential impact that it can have on all aspects of society in the near future.

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handling of ODP moving forward.

Cellect owned four patents on devices with image sensors that all claimed priority from a single application. Each of these patents would have expired on the same day, except for the fact that each was granted PTA. Cellect then sued Samsung for infringement of the four patents and in response, Samsung requested ex parte reexaminations, asserting the patents were invalid because of ODP. In each reexamination, the examiner issued a Final Office Action determining the challenged patent claims were obvious in view of Cellect's prior-expiring reference patent claims. Cellect appealed to the Patent Trial and Appeals Board (PTAB), which sustained the examiner's determinations that the asserted claims of the challenged patents were unpatentable under ODP.

A terminal disclaimer has the effect of limiting the patent term of a later-expiring patent to the



Double (patenting) trouble:

tackling obviousness-type



double patenting and patent term adjustment post Cellect Brent Johnson, Ph.D., and Victoria Tomoko Carrington of Maschoff Brennan address the benefits and pitfalls of patent term adjustment and patent term extension in light of the recent Federal Circuit case that may affect the

> patent term of an earlier-expiring patent. Filing a terminal disclaimer is generally how ODP rejections are overcome, but in this case, Cellect never filed a terminal disclaimer during prosecution or during the ex parte reexaminations for any of the four challenged patents. Thus, the PTAB considered whether an ODP analysis on a patent that has been granted PTA should be based on the expiration date of the patent with or without PTA and decided that it should be based on the expiration date with PTA.

#### Résumés

Brent Johnson, Ph.D. is a shareholder in Maschoff Brennan's Orange County, California office. He is focused on patent prosecution, BPAI Post grant proceedings, IP due diligence, and client counseling particularly in the areas of pharmaceutical and other chemistry-related technologies.

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Cellect raised three challenges on appeal to the Federal Circuit: (1) the PTAB erred in determining that whether a patent is unpatentable for ODP is determined based on the date of expiration of a patent that includes any duly granted PTA; (2) the PTAB failed to consider the equitable concerns underlying the finding of ODP in the *exparte* reexaminations; and (3) the PTAB erred in finding a substantial new question of patentability in the *ex parte* reexaminations.

The Federal Circuit addressed these challenges largely by comparing 35 U.S.C. § 154, the section that sets forth PTA, to 35 U.S.C. § 156, the section that sets forth patent term extensions (PTE). PTE is a statutorily based mechanism that extends patent terms to compensate for delays in obtaining regulatory approval from the US Food and Drug Administration (FDA). PTA and PTE have many similarities as both are statutorily authorized extensions of patent term granted for administrative delays, however, the Federal Circuit went on to reject that PTA and PTE should be factored into an ODP analysis in the same manner despite their similarities.

One reason the Federal Circuit gave for treating PTA differently than PTE with respect to ODP was that § 156 on PTE does not expressly reference

For example, out of 24,807 patents issued in July 2021, 12,889 of them (51.96%) were granted PTA.

terminal disclaimers. The Federal Circuit's decision relied on its finding that § 154 indicates congressional intent to speak to terminal disclaimers and ODP in the context of PTA. Therefore, the Federal Circuit held that ODP can cut short a grant of PTA. Essentially, a patent may be unpatentable for ODP even if the only reason it has a different expiration date from another patent is because of PTA.

In addition to not being persuaded by any of Cellect's arguments about how PTA should be treated like PTE for ODP analysis purposes, the Federal Circuit also did not find Cellect's arguments that the underlying equitable concerns of ODP (improper timewise extensions of patent term and potential harassment by multiple assignees) were not present in this case. The Federal Circuit made it clear that just showing one did not engage in gamesmanship to obtain a grant of PTA is not enough to justify keeping that PTA in ODP situations. Likewise, the Federal Circuit did not find Cellect's reasoning on why ex parte reexaminations should have been improper in this case persuasive. The takeaway from this point is that to effectively make the argument that ODP does not raise a substantially new question of patentability in an ex parte reexamination, there needs to be more

than pointing out an examiner issued ODP rejections of claims in other patent applications but not those being challenged.

Why does this ruling in *Cellect* matter? There are hundreds of thousands, if not millions, of currently active patents that have PTA. For example, out of 24,807 patents issued in July 2021, 12,889 of them (51.96%) were granted PTA. Perhaps even more interesting is the fact that the average amount of time added on to those patents was 127 days. And July 2021 does not appear to have been out of the ordinary - 52.41% of patents issued in August 2020 were granted PTA with an average of 137 days added and similarly, more than half of all patents issued in December 2019 were entitled to PTA with an average of about 142 days added. Imagine how valuable patent protection for an extra third of a year would be to your clients. And then imagine how much your clients would lose if they had to give up a third of a year.

Even though filling a terminal disclaimer is common practice for overcoming an ODP rejection, Cellect does give reason to pause. Should one file a terminal disclaimer to overcome ODP and sacrifice PTA or run the risk of having patents invalidated for ODP? – It appears to be a lose-lose situation. However, if one can address ODP without having to file a terminal disclaimer, perhaps the situation does not have to be a losing one after all. Here are some suggestions on how to avoid ODP rejections in the first place and how to deal with ODP rejections once you are already facing them without filing a terminal disclaimer and having to forfeit PTA:

- When drafting patent applications, emphasize the different inventive aspects of each application to aid in effectively distinguishing them later.
- Instead of filing a terminal disclaimer, argue that the rejected claims are not obvious over the claims in the reference patent or patent application. The argument is the same as a section 103 rejection over prior art, except that the rejected claims must be obvious over the claims and not the entire disclosure of the reference patent or application.
- For a provisional rejection over a copending application, amend or cancel the claims that are used as a basis for the double patenting rejection.
- Double check ownership. If the application and the reference application/patent are not commonly owned, assigned, or subject to a joint research agreement, then an ODP rejection is improper.

Should one file a terminal disclaimer to overcome ODP and sacrifice PTA or run the risk of having patents invalidated for ODP? – It appears

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situation.

- Use 35 U.S.C. § 121's "safe harbor" if entitled to do so. The Manual of Patenting Examining Procedure (MPEP) § 804.02 explains that an "[ODP] rejection may also be avoided if consonance between the originally restricted inventions is maintained in a divisional application."
- Drop dependent claims that contain potentially patentable distinctions and file them in continuations.
- If a large grant of PTA is likely, recognize that under 37 C.F.R. § 1.182, a terminal disclaimer may be withdrawn before the patent is issued.
- Remember the power of Examiner's interviews.

In conclusion, Cellect gives us plenty of things to consider before automatically filing a terminal disclaimer in response to the next ODP rejection we encounter, especially with context about how many patents have been granted PTA and how filing a terminal disclaimer could mean giving up an extra 120+ days of patent protection. Now post Cellect, we know that PTA and PTE are to be treated differently for purposes of an ODP analysis and that ODP can (and will) cut short a grant of PTA. Further, we know that equitable concerns are unlikely to be persuasive in overcoming ODP rejections, and that ODP is likely to be considered a substantial new question of patentability for ex parte reexaminations unless the prosecution history affirmatively indicates that whether an ODP rejection should be made was considered by the original examiner. Therefore, moving forward, it is useful to know how to avoid ODP rejections altogether and what options exist besides filing a terminal disclaimer to overcome ODP rejections so that a proper risk-benefit analysis of filing that terminal disclaimer can be made.

#### **Contact**

#### **Maschoff Brennan**

Maschoff Brennan provides legal counsel and representation to some of the world's most innovative companies. With over 35 attorneys and offices in the technology-focused regions of Utah and California, our attorneys are known for having the breadth of experience and the forward-thinking insight needed to handle complex technological and business issues across all industries and geographic boundaries. In addition, we have extensive experience representing clients before the ITC, PTAB, TTAB, and other administrative agencies in Washington D.C. www.mabr.com

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## One IPO Transformation: an interview with programme lead Natasha Chick

Ahead of the completion of implementation set for early 2024, Natasha sits down with The Patent Lawyer to explain the benefits the UK IPO's brand new digital services will lend to patent professionals and owners filing and protecting in the UK.

#### Can you start by introducing yourself, and your role at the UK Intellectual Property Office (UK IPO)?

I'm Natasha Chick and I lead the One IPO Transformation Programme. I am responsible for overseeing the whole programme and making sure the programme delivers best-inclass new digital services for our customers, fit for the 21st Century.

I've worked at the UK IPO now for well over a decade which I can't quite believe - it definitely doesn't feel that long! In that time, I've been lucky enough to work with several different teams, including as a patent examiner and on patent policy, and I've experienced most of our services

This insight has been invaluable in my new role. I'm currently responsible for making sure we deliver the first part of our One IPO Transformation programme and building a brilliant new service for our patents customers - no pressure!

Next up will be our tribunal, trademarks and designs services – areas very close to my heart as my last job was leading the teams in those areas.

#### The new One IPO digital service for patent services is due to be fully implemented in 2024. What was the driving force for this new system, and why now?

We're passionate about what we do at the IPO, and we already deliver great customer service which is reflected in the feedback we get from customers. But right now, the technology we're using is holding us back.

We want our services to match what our customers have come to expect from other digital services - using our services should be



Natasha Chick

We want IP information to be at your fingertips when you need it so that you can find the information vou need to make decisions.

as easy as logging into your online banking account. We should be leading the way - making life easier for our customers and for colleagues at the IPO.

We're the home of innovation, we support entrepreneurs and innovators, and we need to be innovative too. Right now, we've got the right people and the right resources to really make our Transformation a reality. The team and I are incredibly enthusiastic about delivering an improved, digital service to customers as soon

To tackle this, first, we're focusing on patents, because those services are in greater need of an update. We are aiming to complete this work

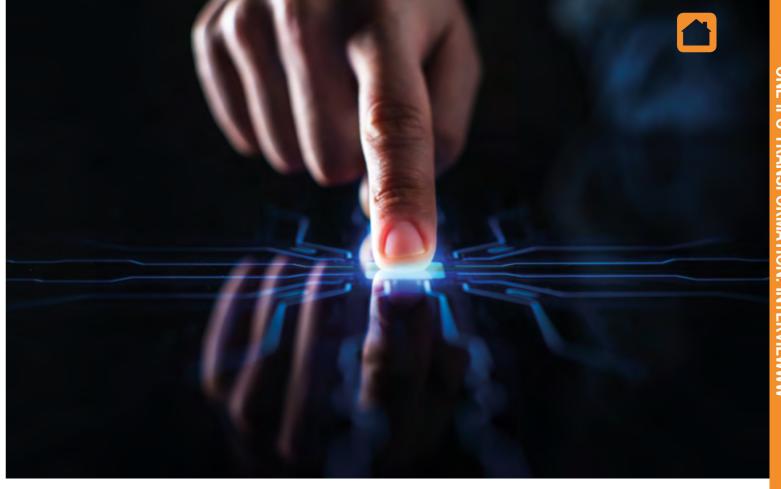
Once we've done that, we'll be turning our attention to trademarks, designs, and our IP tribunals services.

By the end of 2025, our aim is to have finished all this work, and have a single, integrated digital service for tribunals, patents, trademarks, and

The new search tools, part of the transformation, are expected to be fully implemented by early 2024. What would you identify as the key changes and how will these changes benefit the patent community?

Right now, you can only search our IP register by using a patent number. We know that most people want more options - they want to be able to look up products, industries, patent owners and so on.

We want to make it easier than it's ever been for attorneys to find what they need, while also making our register more accessible for business owners and inventors. We want IP information to



Customers

will be able

to view their

portfolio

of patents

online at

any time,

changes

personal

details and

apply for or

to their

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Is an idea worth patenting? What are competitors in that industry working on? What are the latest IP trends? Our new search service will help answer all these questions.

Some of the key features you can expect are being able to:

- · Search for UK patents any way you want, including by application number, keywords, classification and date of grant or registration;
- Search for Supplementary Protection Certificates back to 2017;
- · Visualize your searches with charts and
- · Analyze trends with easy access to statistics on UK patents;
- Build your own patents journal, based on your own date ranges and search criteria.

But that's not all. During 2024, we will be adding even more features including the ability to save your searches, monitor patents, and Al-assisted

#### How will the new system assist patent

Currently, if customers want to know what's happening with their application, they have to call and ask us. If they want to make changes to

form and ask us to do it for them - a process that can take weeks. This isn't efficient for the customer, or for us at the IPO.

> As part of our new digital One IPO services, we're introducing a new IPO customer account. We want to make it easier for customers to control their IP. Customers will be able to view their portfolio of patents online at any time, make changes to their personal details and apply for or renew patents - all from one easily

#### Résumé

Natasha Chick has been the IPO's Divisional Director and Senior Responsible Owner for Transformation since 2022. Prior to her current role, she was Divisional Director of the IPO's Tribunal, Trade Marks and Designs teams, where she was also closely involved with developing new digital services as part of the One IPO Transformation Programme.

Natasha has been at the IPO for over two decades - initially joining as a Patent Examiner. Her broad experience across the IPO - having held roles in patents, trademarks, designs operations and policy - gives her a real appreciation of the benefits the new systems will bring. Natasha holds a degree in Computer Science from the University of Bristol.

searches.

customers in managing their portfolios?

their personal details, they have to send us a

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accessible place.

The new service will also include notifications when there are key updates on their applications or transactions. Of course, we'll still be at the end of the phone if customers need to contact us that way.

## How will Application Programming Interfaces (APIs) between private systems and the One IPO system benefit your customers?

The term 'API' might sound a bit like technical jargon, but the benefits to our customers are actually very straightforward - and very exciting! Put simply, 'APIs' enable different software systems to 'talk to each other' - so attorney firms, for example, will be able to securely access selected information from our systems using their own preferred IP software instead of having to log in via a website

Initially, we're looking to enable customers to receive bulk data from the IP register, view their portfolio of IP rights, and renew their IP rights in this way. Longer term, we'll introduce more options, so that attorneys can have more direct access to our services. Ultimately, it's about giving people more choice and flexibility.

## The EPO's Electronic Online Filing (eOLF) system will be unavailable for filings as of late 2024, how will One IPO aid in the switch to alternative filings at the UK IPO?

Lots of our customers use eOLF to file their patents at the moment, so I totally understand that this

Ultimately, it's about giving people more choice and flexibility.

is a big change for everyone.

Setting dates and seasons aside, our plan is to give a three-month overlap between our new services launching and eOLF being phased out. We want to give attorneys some time to adjust to our new One IPO service. We know that shifting to a new way of working is a big task, so it's imperative we give ourselves enough time.

We're committed to making this transition as seamless as possible for our customers and we'll continue to share frequent updates as we get close - so you'll have all the information you need, including live demonstrations - and the chance to ask us any questions. So, stay tuned!

#### Can you run us through the key changes for filing a patent come 2024?

Our new services are easier, simpler, and more intuitive – they are what you would rightly expect from a digital service today.

Through our new One IPO services, customers will be able to make an application in a way that suits them. Gone are the days of starting at 'point A' and then moving straight to 'point B'. Instead, we'll give customers more flexibility to choose the order in which they do things – with all their information in one place to view.

We know that people are busy. With our new services, you'll only need to provide us with your customer details at the point you first set up your customer account. Customers may not have the time to complete their application in one go, which is why we're making it possible to save a draft and come back later. Simple errors

can cost everyone time and effort – so we're also introducing technology that'll allow us to spot errors before the application is submitted.

But that's not all. With our new services it will be much easier to collaborate – reflecting how many of us work now. Customers will be able to share working draft copies of their applications with their colleagues or representatives before their application is submitted. They'll also be able to collaborate with us at the IPO using comments and tracked changes on documents and applications in real time.

#### Will paper applications still be accepted? How will this change?

Yes, you will still be able to apply via paper. We expect most of our customers will want to use the new digital service as it will be so much easier, but we understand how important it is to keep our paper services for those who need them. We will be making some changes to these forms, however, so they closely mirror our new digital service.

#### Where are you with piloting the new service?

Before we launch our new service, we'll be running a pilot for a small group of around 40 customers who will help us to test and refine the new service so it's the best it can be.

In preparation for our pilot, we have been checking the data we have for each of our pilot participants. It's important that we have the right information registered against their account. To be honest, this has been a big challenge.

We're hoping to invite our first group of customers to start to pilot our services very soon. We'll take feedback to help us improve our patent services before we launch them publicly once we know they meet our priority of delivering a quality service for our customers.

### How will the new systems benefit private practice attorneys? And what do they need to know to best serve their clients?

Our new service will benefit everyone who uses IP, however for private practice attorneys, they'll see lots of big improvements such as:

- They'll be able to view all of their UK patents in one easily accessible place.
   This will include how their application is progressing and all related documents;
- The ability to make changes to their personal details instantly;
- It'll be easier to collaborate on applications with colleagues by saving draft applications;
- It'll be a more modern and user-friendly service that will make every transaction

Setting dates and seasons aside, our plan is to give a three-month overlap between our new services launching and eOLF being

with the IPO easier.

I've touched upon the key changes already, but there's still time to give us your views – we're always looking to hear what you think to make sure our new One IPO services will work for you.

As we get closer to launching our new services, we'll be sharing more details about how these services will work, including live demonstrations.

Engagement is absolutely crucial to the success of our One IPO Transformation Programme so please keep listening out for updates and get involved.

#### How will these changes affect international filers?

Our international filers will really benefit from our new services being available. Our new search tools will give international customers the opportunity to develop a good understanding of the patent landscape in the UK. International customers will be able to use our new One IPO service or WIPO's ePCT online filing service.

#### What plans does the UK IPO have for system developments for 2025 and beyond?

In late 2025, we will be adding tribunals, trademarks, and designs to our existing patents service.

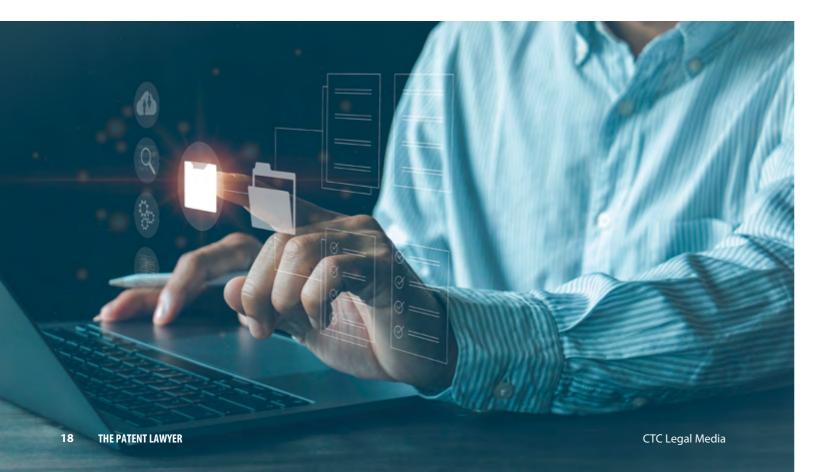
While in the next few years we'll have delivered all our new services, our work will never be done. We very much believe in continuous improvement, and we'll continue to build new features that make use of the latest technology - proactively making changes based on the feedback we get from our customers.

We'll never stop making improvements, adding features, or listening to what you tell us. Our Transformation Programme is based on listening and understanding our customers' needs – it is built into the fabric of our approach. We will share our ideas and early prototypes to check we're on the right track.

Through our user testing programme, we get invaluable nuggets of information about all our new services that we never would have thought of without the input of our customers – from small things like the language we're using, to more fundamental changes to our original design.

So, our big request to readers of *The Patent Lawyer* is to get involved with our user testing - which may include surveys and remote and in-person interviews. This will help ensure we maintain our promise to build world-leading IP services.

If this has piqued your interest in The IPO's Transformation Programme the IPO is always keen to have you involved in its user testing. Please just drop the IPO an email at usertesting@ipo.gov.uk



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phased out.

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# Manifest inventivity: new examination guidelines introduced for utility patents in China

Dr. Yongqiang Qi, Partner at Corner Stone & Partners, provides a brief analysis of the implications of the introduction of manifest inventivity examination into utility patent examinations in China.



Dr. Yongqiang Qi

hina National Intellectual Property Administration (CNIPA) recently issued the Yearly Work Guidelines for Facilitating High-Quality Development of Intellectual Property (2023), in which the checklist for improving IP examination and grant quality and efficiency specifies the following: finishing the adaptive amendment to the Patent Examination Guide, officially introducing manifest inventivity examination into utility patent examinations, strengthening the guarantee on examination quality and the overall management of business guidance, intensifying internal and external evaluation of examination quality, improving the multidisciplinary examination mechanism, and increasing the intelligent level of examination and business

By advancing reform in the utility patent examination system and introducing manifest inventivity examination, CNIPA's 2023 Work Guidelines suggest that China is determined to increase the requirements for inventivity in utility patent examination, which are not exact at the time being. This is because utility patents are generally easily granted in China. Granted utility patents in China exceeded three million in 2021, which almost amounts to the number of invention patents in the whole world. The examination of utility patent applications is mostly procedural examination in China; although manifest novelty examination is also conducted, it is very easy to overcome it. The requirements for inventivity in

utility patent examination not being exact for a long time led to vast numbers of utility patents being granted, which not only depletes large examination resources but also results in a large number of abnormal applications. The threshold of utility patent protection must be raised. Moreover, once a utility patent is granted, it is difficult to invalidate on the same conditions as the requirements for its inventivity are lower than those for an invention's inventivity. In administrative proceedings, utility patents and invention patents are generally treated alike. For these reasons, applicants favor utility patents regardless of purpose. From the above, it is clear that CNIPA's purpose for officially introducing manifest inventivity examination into utility patent examinations is to improve the quality of utility

At present, the system for examining utility patents in China is preliminary examination plus an assessment report. In preliminary examinations, examiners inspect whether a utility patent application is obviously novel or not according to the prior arts or conflicting applications received. To further improve the quality of utility patents granted, CNIPA has actively promoted the reform of the utility patent examination system. In the draft revision to the implementing regulations of China's patent law, the manifest lack of inventivity is included in the preliminary examinations of utility patents. The Patent Examination Guide is simultaneously revised to refine and improve the relevant examination criteria. In order to enhance the high-quality development of IP in China, the examination of utility patent inventivity will be conducted officially and the difficulty level of applications and examinations will be

Then, how far will the manifest inventivity examination be performed once it is introduced? CNIPA has not issued specific methods for it for the time being. The current Patent Examination Guide specifies two aspects to manifest inventivity examination: (1) considering the technical field of the utility patent to be granted; (2) generally citing one or two prior arts to evaluate inventivity; and for a utility patent that is simply the superposition of prior arts, citing a number of prior arts to evaluate inventivity.

Utility patents are nearly twice as many as invention patents. If substantive examination of a utility patent is conducted as that of an invention patent, examiners' workloads will increase many times, and thus this examination is unrealistic. In general, inventivity examination is preceded by novelty examination. The novelty of utility patents is easy to overcome. There are quite a few claims, including independent claims and subordinate claims, for most utility patents. It is not easy for examiners to deny the novelty of all claims after

It is clear that CNIPA's purpose for officially introducing manifest inventivity examination into utility patent examinations is to improve the quality of utility patents.

proper searches. In practice, the utility patents that are refused on the grounds of manifest novelty are very limited. If manifest novelty is required for independent claims of utility patents, it will be difficult for examiners to search contrastive documents and convince applicants. In these circumstances, the examination of utility patents is almost the same as that of invention patents. Examiners will have to carry out massive searches and pass their opinions, making their workloads extremely heavy. After manifest inventivity examination is introduced, the grant rate of utility patents will definitely reduce in the beginning, but applicants will adjust the writing of utility patent applications over time. At present, most utility patent applicants put claims in a wide scope, tending to describe real valuable features in subordinate claims. If applicants reduce the scope of independent claims, as independent claims have novelty, to refuse them on the grounds of manifest inventivity, examiners will have to spend much time searching. Refusing independent claims on the grounds of manifest inventivity and refusing subordinate claims on the grounds of inventivity again entail disputes with applicants in replies to examination comments and an increase in the number of reviews. Therefore, whether it is an inventivity search or novelty search, examiners have to spend time doing it. In the event of the absence of massive searches, whether it is inventivity or novelty, applicants can overcome

#### Résumé

#### Dr. Yongqiang Qi, Partner, Patent Attornev

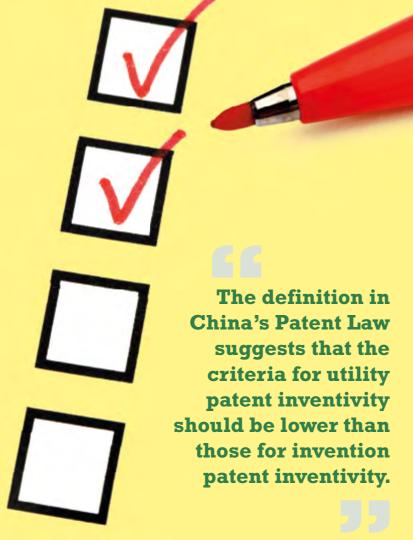
Focused on patent matters, including drafting applications, replying to OAs, invalidations, prosecution, etc., Yongqiang was engaged in research at the Chinese Academy of Sciences for seven years before relocating to Japan to study and work for eight years. He has practiced as a patent attorney for 15 years and handled a large number of cases for domestic and foreign companies. He studied the European patent system in the UK in 2012, and studied the Japanese patent system in Japan in 2016. He joined Corner Stone & Partners in 2018 and is responsible for the Japanese Department. His rich experience and outstanding skills in looking after clients from Japan and other parts of the world have made him one of the core members of the patent

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easily. As long as applicants adapt application writing well, the grant rate of utility patents will increase again. Once examiners carry out massive searches and pass their opinions, the examination of utility patents is largely identical to that of invention patents. In the long run, conducting simple substantive examinations will not be quite different from not conducting substantive examinations because applicants may adjust writing techniques to bypass simple substantive examinations and force examiners into massive searches and once massive searches are done and examination opinions are passed it will be the case with invention patents. However, it is certain that the "manifest inventivity examination" for utility patents is definitely different from the "inventivity examination" for invention patents. In addition, the definition in China's Patent Law suggests that the criteria for utility patent inventivity should be lower than those for invention patent inventivity.

Under the current policy on utility patent examinations, the inventivity examination of utility patents is not performed in preliminary examinations. After the manifest inventivity examination is introduced, the criteria for judging manifest inventivity will, in all likelihood, follow those for judging the inventivity of utility patents in the invalidation procedure. The criteria for judging the inventivity of inventions and utility models mostly lie in technical inspiration and technical inspiration is judged in terms of the technical field and the amount of prior art. There is some difference between invention patents and utility patents in judging whether the prior arts provide technical inspiration. The difference lies in the following two aspects: (1) technical field: for an invention patent, not only considering the technical field of the patent, but considering the technical fields associated with it or relating to it and other technical fields in which the technical problems this invention intends to solve can prompt the technicians in this field to seek techniques, and for a utility patent, generally only considering the technical field of the patent; (2) the number of prior arts: for an invention patent, citing one, two, or more prior arts to evaluate its inventivity; for a utility patent, only citing one prior art to evaluate its inventivity in general. As such, combing contrastive documents and general knowledge (citing one prior art to evaluate its inventivity) must be the most adopted method for judging manifest inventivity. In practice, examiners will follow the practices of evaluating novelty to evaluate inventivity, which is similar to the method of combing contrastive documents and general knowledge. More examinations of this kind are to be expected after the examination system is altered.

In conclusion, the introduction of manifest inventivity examination into utility patent examinations will not impinge on the current utility patent examination system, but it will greatly improve the quality of utility patent grants.



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# Navigating the quantum leap: patenting the future of quantum software

Nick King and Thomas Mercer of HGF consider the extent to which software for quantum computing is eligible for patent protection, with a particular focus on practice in front of the European and UK patent offices.

or many years, successfully patenting software-related inventions had a reputation - in our experience unjustified - as being difficult and confusing. Whilst most legal systems have now developed a consistent approach to the assessment of computerimplemented inventions, that legal practice has been developed entirely based on classical computing. Quantum computing is now emerging as a rapidly developing field and is widely regarded as having enormous potential to deliver a step change in the complexity of computing problems that can be carried out within a useful time frame. In this article, we consider the extent to which software for quantum computing is eligible for patent protection, with a particular focus on practice in front of the European and UK patent offices.



Whilst practical applications of today's quantum computers remain in their infancy, a report¹ compiled by the European Patent Office (EPO) showed a recent boom in quantum computing patent filings. For example, the number of quantum computing-related patent families published per year more than doubled between 2017 and 2021. Much of this innovation lies in the hardware for realizing and manipulating qubits in order to carry out quantum computation. However, there is also plenty of innovation directed to the development of software for quantum computing (quantum software).



Nick King



Thomas Mercer

For example, innovative methods for execution on quantum computing hardware (e.g., quantum algorithms) are being developed in order to solve real-world problems which remain out of reach of even the most powerful classical computers. Quantum software methods might also encompass some steps performed on a classical computer. For example, quantum software-related inventions may lie in methods of control of quantum computing hardware, methods of translating high-level instructions into operations for execution on quantum hardware (akin to a compiler), and quantum error correction methods.

#### The classical approach

Both the European Patent Convention (EPC) and the UK Patents Act include a statutory exclusion to the patentability of a program for a computer (as such). In practice, however, patent protection is available for computer-implemented inventions which produce a "further technical effect", which goes beyond the "normal" physical interactions between the program (software) and the computer (hardware) on which it is run. Under the examination approach adopted at the EPO, there are two main streams of "further technical effects": 1) those that produce a technical effect outside of the computer; and 2) those that are designed based on specific technical considerations of the internal functioning of the computer.

Under the caselaw of the UK courts, a series of signposts (referred to as the AT&T signposts)

have been developed, which provide pointers to possible further technical effects. In particular, the AT&T signposts define effects which: 1) produce a technical effect on a process carried on outside of the computer; 2) operate at the level of the architecture of the computer; 3) result in the computer being made to operate in a new way; and 4) make the computer a better computer in the sense of running more efficiently and effectively as a computer, as pointing to a further technical effect.

#### Does the classical approach apply to quantum software?

Quantum computers operate according to fundamentally different principles to classical computers. Where classical computers use bits, which can only exist in one of two states at any given time, quantum computers use qubits which can exist in a superposition of both of its states simultaneously. Furthermore, qubits can be entangled with each other such that their quantum states become correlated. Consequently, the gate operations used in quantum computing, the way that quantum algorithms are optimized, and the nature of the results returned by quantum operations are all fundamentally different to their classical counterparts.

Given the fundamental differences between classical and quantum computers, it is reasonable to ask whether the classical approach should also apply to quantum software.

Whilst a large and ever increasing¹ number of patent applications have been filed which are directed to quantum computing, it is still too early for any quantum-specific case law to have been developed. There is, however, some early evidence emerging from both the UK and European patent offices to suggest that the classical approach will also be applied to inventions directed to quantum software.

For example, two UK patent office hearing decisions (O/130/22 and O/935/22) have been issued which relate to assessing whether methods implemented using a quantum computer relate to subject matter which is excluded from patentability. In decision O/130/22, the hearing officer explicitly addressed the suitability of the classical approach and concluded that the AT&T signposts are "valid for quantum computers as for classical computers and still provide[s] useful



#### Résumés

#### Dr Nick King, Patent Director

Nick is an experienced European and UK patent attorney specializing in computer-implemented inventions and other high technology fields. He has a particular interest in emerging technologies such as artificial intelligence and quantum computing and has experience in handling subject matter across the full range of second-generation quantum technologies. He has many years of experience helping clients to obtain protection for software-implemented inventions and in particular enjoys working with subject matter which lies on the borderline of patentability.

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#### Thomas Mercer, Patent Attorney

Thomas is a European and UK patent attorney with experience in drafting and prosecuting patent applications across the fields of electronics and software. He specializes in high tech subject areas including computing (both classical and quantum), telecommunications, instrumentation, and semiconductors.

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https://www.hgf.com/hgf-techknow/fromtheoretical-proposals-to-commercial-reality-therise-of-innovation-and-patent-filings-in-quantumcomputing/



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**families** 

per year

doubled

between

and 2021.

2017

published

more than

signposts as to whether the claimed invention makes a technical contribution". The AT&T signposts were also adopted in decision O/935/22.

Furthermore, a recent series of "Examination Matters" workshops conducted by the EPO included a session directed to quantum computing in which EPO examiners confirmed that it is internal practice at the EPO to draw a direct analogy between classical and quantum computing. In particular, it was suggested that existing case law and examination guidelines can be interpreted for the purposes of quantum computing inventions by viewing a quantum computer as a form of computer and a quantum circuit as a form of a program for a computer.

#### What does this mean for the patentability of quantum software?

Similarly to the classical approach, it can be expected that quantum software will qualify for patent protection either by virtue of: 1) what the software does in terms of solving a technical problem outside of the computer; or 2) how the software operates in terms of its interaction with hardware.

#### 1) What does the quantum software do?

Current useful applications of quantum algorithms are often directed to solving mathematical problems or to the simulation of complex systems (e.g., deriving fundamental properties of quantum

tie them to the solution of those problems. The number

For example, the patent application under be needed to realize such a technical effect.

A similar approach Is also likely to be applied by the EPO, whose recent Enlarged Board of Appeal decision G1/19 concluded that the output of a simulation can only be considered to bring about a technical effect where that effect is at least implied in the claims and the technical

mechanical systems). Whilst outputs of quantum algorithms might be useful for solving technical problems (e.g., using the outputs of simulations of chemical reactions for new drug design), they are often designed and described at a level of generality which doesn't specifically

consideration in the UK hearing decision O/130/22 was directed to an algorithm (for execution using a quantum computer) for determining at least one unknown energy level of a physical system comprising atoms. In this instance, the hearing officer found that even if the physical system is seen to correspond to a system that exists in reality, the potential use of the outputs of the algorithm were too broad to be specifically linked to solving a technical problem outside of the computer. It was considered that even if the results of the algorithm could be used in technical applications (such as better drug design, or a better photovoltaic article) the outputs of the algorithm were too far removed from such technical use that further inventive work would

use of the output of the simulation extends across

the entire scope of the claim (i.e., the claim does not also encompass non-technical uses).

If patent protection is to be sought for quantum software-related inventions on the grounds of the technical problems that they solve outside of the computer, it will therefore be important to claim them in such a way that they are specifically limited to their application to those technical problems.

#### 2) How does the quantum software operate?

Under the European examination approach, a program for a computer is eligible for patent protection if it is designed based on specific considerations of the internal functioning of the computer. Furthermore, the AT&T signposts developed under UK case law indicate that a technical contribution is provided if the claimed effect (amongst other things) operates at the level of the architecture of the computer, results in the computer being made to operate in a new way, or makes the computer a better computer in the sense of running more efficiently and effectively as a computer.

Many of today's developments in classical software are directed at a high level and are intended for implementation on any generic hardware. It can therefore often be difficult to tie the software to specific considerations of the hardware on which it is to be run.

However, almost all quantum software is on some level specifically designed to utilize the unique properties of the hardware of quantum computers. As a result, today's quantum software innovations are often contemplated at a lower level than their classical counterparts and in some cases are even considered at a machine code level (e.g., pulse level control of qubits). It may well therefore be possible to define many of today's developments in quantum software in such a way that they are eligible for patent protection in Europe.

In more detail, the closer the design of quantum software can be tied to the technical properties of the underlying hardware which it seeks to exploit, the more likely it is going to be considered to be borne out of technical considerations. Furthermore, if it can be shown that a technical improvement is provided irrespective of specific data which is being processed then the more likely it is that an innovation will be considered to operate at the level of the architecture of the computer.

Whilst the development of quantum software is often motivated by the properties of the underlying hardware of quantum computers, there are currently many different implementations of quantum hardware (e.g., qubits may be realized by superconducting circuits, trapped ions, photonic qubits and/or other quantum mechanical system).

There are emerging indications that both the European and UK patent offices will seek to apply the same legal frameworks which have been developed for the assessment of classical software to the assessment

of quantum

software.

Given the diversity of quantum hardware, quantum software is often developed to be generic in that it can be used for all types of quantum hardware. The more agnostic quantum software is, as to the type of hardware that it utilizes, the harder it may be to tie an invention to the underlying properties of the hardware. However, given that many properties are common to all quantum hardware (e.g., short qubit coherence time, noisy results, a need for error correction etc.) it could be argued that software which seeks to exploit or handle such properties is still designed in consideration of the properties of quantum hardware, even where it is agnostic as to the specific type of hardware.

If patent protection is to be sought for quantum software related inventions on the grounds of its design being based on specific technical considerations of the internal functioning of the computer, then it will be important to clearly describe the way in which the software is designed to interact with quantum hardware. If possible, it will also be helpful to emphasize that any technical effects are realized for different types of data rather than being limited to the context of specific computational problems.

#### Conclusions

Whilst the early pioneers of software for classical computers faced a high degree of uncertainty as to the extent to which their inventions would be eligible for patent protection, the subsequent development of case law and legal practice for assessing software-related inventions provides a well-developed legal framework, which provides a greater degree of certainty to early innovators of quantum software. Indeed, there are emerging indications that both the European and UK patent offices will seek to apply the same legal frameworks which have been developed for the assessment of classical software to the assessment of quantum software. Considering these tests in light of the current development of quantum computing shows that now may be as good a time as any to seek patent protection for quantum software-related innovations.

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## Rapid development and market introduction of new technologies: why Freedom to Operate analysis is essential

Maciej Fajkowski, patent specialist at Patpol, evaluates the necessity to perform Freedom to Operate analysis to ensure the protection of new technologies from R&D through to introduction to the market, even with a product protected by exclusive rights.

reedom to operate (FTO) may not be the first thing that comes to mind for an entrepreneur when developing a new solution, but it is a very important direction that should always be considered, especially for startup entrepreneurs who want to commercialize their products. Launching a product, technology, or invention onto the market is associated with the risk of potential infringement of earlier exclusive rights of third parties. Infringement occurs when a technical solution is offered, introduced on the market, or used for profit without due authorization and it is revealed that it was already protected by a particular exclusive right of someone else. Moreover, the lack of awareness of the existence



Maciej Fajkowski

of an earlier exclusive right cannot be used as a justification for infringement of that right.

The risks resulting from not having carefully examined patent clearance include damaged relationships with partners, a risk of incurring financial penalties, and a possibility of the loss of a promising technical solution. The advantages of conducting profound patent clearance in the process of product development are security, better opportunities to attract investors, and a higher probability of commercial success. This is especially important now when entrepreneurs are looking at how to save the costs that they incur due to the current market situation and when more and more newly developed technologies are appearing on the market. Infringement of third parties' exclusive rights may involve the payment of a certain sum of money, the amount of which depends on the losses incurred by the right holder. Thus, taking care to minimize the probability of infringement of someone else's exclusive rights is an important factor in safeguarding against exposure to capital losses, which is especially important in situations of economic crisis. Therefore, Freedom to Operate (FTO) analysis is an effective tool for safeguarding one's own interests and giving oneself the opportunity to make the appropriate changes to a newly developed solution even before it is introduced on the market, or it may also be used to protect oneself against infringement from

In view of the above, let us have a look at two basic questions: why is awareness about the need for FTO analysis so important? And what is patent clearance by itself?

#### Résumé

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- · Attempting to invalidate the patent;
- Obtaining a license for a solution protected by a patent;
- Purchasing a technical solution from the right holder or with the right holder's consent;
- Purchasing a conflicting patent (a patent is a transferable right, so the patent holder can transfer it to another person/ other entity).

If the result of a patent clearance analysis is very unfavorable, it may be necessary to abandon further activities seeking to manufacture, use, sell, or import a particular solution.

#### How is the patent clearance analysis conducted?

The Freedom to Operate analysis for technical solutions should be carried out by the patent attorney appropriate for a particular country. This is important because a national patent attorney is familiar with the legal interpretation of the scope of protection of exclusive rights in a particular country. Thus, they will best assess the risk of patent infringement in their territory. The examination of patent clearance is the analysis carried out for a well-defined technical solution, so the first step is to determine in detail what the examination is to be about, that is, to clearly define the technical features of the examined solution. In the next step, the relevant criteria of the examination regarding the field of technology or the duration and scope of protection are determined. Then, a search is carried out in the patent literature to select the patent documents in force, closest to the examined solution, which are potentially subject to infringement. After selecting the aforementioned documents, the patent attorney conducts a detailed analysis, based on which they prepare an opinion on the patent clearance of the examined solution. Based on the received opinion on patent clearance, entrepreneurs can adjust the previously mentioned strategy to further actions on commercialization or application of specific solutions.

#### The rapid development of new technologies and the increasing number of intellectual property rights

Technological development is accelerating along with economic development. Large companies are expanding and producing new solutions. Moreover, more and more new companies working on their own solutions are appearing on the market, resulting in an increase in the number

of patent applications. The chart below shows the upward trend in the number of patent applications on a year-to-year basis at the European Patent Office (EPO). As the number of patent applications is increasing, the number of granted exclusive rights is increasing as well. Thus, every entrepreneur, when introducing their new solutions on the market, must take into account the growing number of existing third-party rights that are potentially subject to infringement. Thus, year after year, entrepreneurs should put more and more emphasis on examining the patent clearance of the solutions that they intend to commercialize. At this point, it should be noted that there is a very important role here for patent attorneys, but also for IP practitioners, who should try to raise awareness among their clients about taking care of their interests and protecting themselves against possible infringements. Companies are more and more willing to examine their solutions, as they are more aware of the growing size of competition and the potential dangers of neglecting their own IP rights.



#### Why conduct the Freedom to Operate analysis?

In the times of rapid development of new technical solutions, no company, especially startups, wants to undertake costly and unpredictable legal actions, which is exactly what may happen if a patent clearance examination is not performed. In the case of infringement, the most optimistic scenario may be the need to pay licensing fees and legal costs, as well as the loss of trust of potential partners. In the worst-case scenario, in addition to incurring high costs, there may also be major disruption to the company's business due to the need to withdraw the solution from its offerings. In some jurisdictions, if the infringer was aware of existing third-party intellectual property rights, the compensation increased significantly.



In particular, startups that invest their resources in developing their new solutions risk legal consequences by failing to conduct a comprehensive patent clearance examination. These companies usually have less funding, and the legal consequences can cause huge barriers to the development and marketing of their products.

Consequently, the above demonstrates how many positive reasons emerge for conducting patent clearance examinations. Assuring partners that the company takes intellectual property rights seriously and does not want to risk infringement is one of those positive reasons. In addition, it is crucial to show that the company cares about its own solutions, by which it can gain the confidence of investors.

It should also be remembered that having an exclusive right for your own solution does not mean that the solution does not infringe others' exclusive rights! Therefore, conducting a patent clearance examination is crucial and is recommended when launching any solution, even one protected by your own exclusive right.

#### When to conduct the Freedom to Operate analysis?

As a general rule, a patent clearance examination should be conducted before a solution in the form of a product or technology is launched on the market, and when the solution is already clearly defined by the technical features describing it. However, patent clearance examination can also be carried out both at the early conceptual stages and after the solution has been introduced to the market. Conducting a patent clearance examination at the conceptual stages allows for

Companies are more and more willing to examine their solutions, as they are more aware of the growing size of competition and the potential dangers of neglecting their own

the determination of whether it is worth investing further resources in the development and research of a particular project, or in which direction a project should go. Performing the Freedom to Operate analysis in the early design stages, however, may result in the need to perform the examination again when the company wants to enter the market, as the solution may have changed significantly by that point.

#### How can we help?

If you incur high costs for a new solution and want to bring it to the market, the Freedom to Operate analysis should be prepared by a law firm specializing in such services, especially because of the broad experience of patent attorneys employed in the firm and their high professional liability insurance.

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## How might an Al Model affect vehicle accident liability?

David McCombs, Eugene Goryunov, and Calmann Clements of Haynes & Boone explore some of the challenges that are associated with determining whether an autonomous vehicle feature - that relies on AI models is defective for the purpose of determining liability.

he automobile has been around for well over a century. As such, society has in place a legal framework for determining liability in case of an accident. When an automobile is involved in an accident, the law determines whether that accident was the result of a negligent driver or a defective automobile and then assigns liability as appropriate.

Manufacturers have a duty to exercise reasonable care when designing their automobiles to make them safe when used as intended. But even if a manufacturer exercises reasonable care, they may still be strictly liable for manufacturing defects or design defects. Manufacturing or design defects may occur anywhere along the production chain. For example, a defective brake caliper may cause failure of the braking system and lead to a vehicle crash.

But what if an accident involves an autonomous vehicle and the cause of an accident might be a defective autonomous feature, such as autosteering? While determining whether a brake caliper is defective may be a relatively straightforward task, determining whether the software of an autonomous vehicle is defective can be quite difficult. This is particularly so if the autonomous vehicle feature is one that relies on Artificial Intelligence (AI) models.

The authors explore some of the challenges that are associated with determining whether an autonomous vehicle feature - that relies on Al models - is defective for the purpose of determining liability.

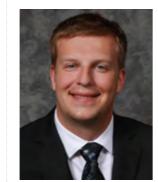
#### **Autonomous vehicle features**

Autonomous vehicle features have become more widely available. These features range from the low-level, such as collision avoidance systems, to more complex ones such as highway steering and even active navigation. Autonomy in vehicles is not a one-size-fits-all situation. Indeed, the Society of Automotive Engineers (SAE) and the US Department of Transportation defines various levels of vehicle autonomy as follows:



David McCombs





Level	Description	
O	System provides momentary driving assistance, like warnings and alerts, or emergency safety interventions while driver remains fully engaged and attentive.	
1	System provides continuous assistance with either acceleration/braking OR steering, while driver remains fully engaged and attentive.	
2	System provides continuous assistance with both acceleration/braking AND steering, while driver remains fully engaged and attentive.	
3	System actively performs driving tasks while driver remains available to take over.	
4	System is fully responsible for driving tasks within limited service areas while occupants act only as passengers and do not need to be engaged.	
5	System is fully responsible for driving tasks while occupants act only as passengers and do not need to be engaged.	

Examples of level o autonomy include automatic emergency braking, forward collision warning, and lane departure warning. Examples of level 1 autonomy include lane-keeping assist



and cruise control. Examples of Level 2 autonomy include highway steering systems such as Tesla's autopilot, GM's Super Cruise, Ford's Blue Cruise, and so on.

Lower-level autonomous features may not rely on AI models—they may instead rely on simple computations. For example, a forward collision warning system may perform a simple calculation involving the vehicle's speed and the distance between the vehicle and an object in front. If that calculation warrants warning the driver, the system does so.

An autonomous vehicle feature that relies on Al models is more complex because it is designed to make decisions in situations it has never seen. For example, a highway steering feature must be aware of the roadway, lane markings, and surrounding traffic to steer the vehicle and change lanes appropriately. There is no simple formula for doing so. Every time a vehicle navigates traffic it is doing so under a unique set of circumstances the vehicle has never seen. To handle these new and unique circumstances, the highway steering feature relies on an AI model.

#### Al model production

Al models are created using a process that involves data collection, data pre-processing, model design, model training, and deployment. We explore these steps below with respect to highway steering as an example.

#### 1. Data collection:

Machine learning algorithms require a set of data to learn from, i.e., training data. In the case of highway steering, data related to what the vehicle observes, as well as the actions performed by the vehicle, is collected from vehicle sensors and systems as the vehicle is driven in realworld conditions. Data as to what the

vehicle observes may be obtained from various sensors such as cameras, RADAR systems, LIDAR systems, GPS systems, and If the ultrasonic sensor systems. Data as to what actions the driver, and therefore the original set vehicle, takes may be collected from the of data used vehicle's internal systems that monitor acceleration, braking, and steering. to train the AI model is 2. Data preprocessing: defective, it may lead to defects in the

The vehicle data, after being collected, must be formatted appropriately. When the data is first collected, it is often unstructured. The data is thus converted into a format that is suitable for being input into a machine learning model.

3. Model selection and design:

There are various types of machine learning models available. These models

#### Résumés

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the AI model

itself.

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may include decision trees, neural networks, support vector machines, and more. The model is designed for a specific purpose such as for highway steering.

#### 4. Training the model:

The formatted data is then fed into the model. The model then develops algorithms that give a certain type of input (what the vehicle observes) that will produce a certain type of output (how to drive the vehicle). The developed algorithms can then be evaluated and fine-tuned.

#### 5. Deployment:

Once the AI model is trained and fine-tuned, it can be used to make predictions on new, real-world real-time collected data. Specifically, it is put into use to perform its intended function – in this case, highway steering. The trained AI model can be further monitored and evaluated while it is being utilized.

#### Where can defects occur?

Like a braking system that fails due to a faulty brake caliper, an autonomous vehicle system may fail due to a fault during any phase of the AI model creation process. For example, an AI model is only as good as the data it is provided. If the original set of data used to train the AI model is defective, it may lead to defects in the operations of the AI model itself. There may be several ways in which the data is defective: it may be faulty because the sensors used to collect the data may have been faulty, there may be a defect in the way the data is structured, or faulty sorting or labeling processes could also lead to data defects.

Defects may also occur based on the type of drivers from whom the data is collected. If the training data is collected from careless drivers, then the autonomous vehicle feature based on that AI model may similarly operate carelessly. This defect may be exacerbated if the model is being updated based on real-world scenarios generated by careless or unsafe drivers.

Defects may also occur if the AI model is trained using data from a narrow set of circumstances but applied in different circumstances. For example, if the data is largely collected under clear and dry conditions, the resulting AI model may not work effectively in wet or nighttime conditions. If the data is collected from drivers from a narrowly selected geographical region, then the resulting AI model may not be effective in other geographical regions that have different driving rules, etiquette, customs, or tendencies.

In short, the effectiveness and safety of an autonomous vehicle feature, such as highway

These frameworks are robust enough to handle new and complicated technologies such as AI model-based autonomous

vehicle

features.



driving, is largely dependent upon the data on which the underlying AI model is based. But whether the autonomous vehicle feature can be considered "defective" is a difficult question.

#### Possible solutions

How must the current legal framework change to account for defects in AI models?

Some might argue that no change is needed because the existing tort and contract laws are sufficient to address these concerns. There is already a well-established and heavily vetted negligence and product liability framework as well. These frameworks are robust enough to handle new and complicated technologies such as Al model-based autonomous vehicle features.

Others might argue that a risk-sharing mechanism, such as insurance or a compensation fund, may be needed. In this scenario, all parties involved (vehicle manufacturers, part manufacturers, and AI model developers) would all contribute to the risk pool. When an accident involving an autonomous vehicle feature occurs, the victims would be compensated, at least in part, from the risk pool. One only needs to determine whether the accident was caused by the autonomous vehicle feature. There would be no need to determine whether the autonomous vehicle feature is actually defective or not.

As AI-based autonomous vehicle features continue to develop, so should our solution to the liability challenge. The ultimate solution should be designed to fairly assign liability without allocating excessive burden on AI model developers.

This article reflects only the present personal considerations, opinions, and/or views of the authors, which should not be attributed to any of the authors' current or prior law firm(s) or former or present clients.

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# The new European Unified Patent Court: practical advice on how to best prepare for litigation

Detlef von Ahsen, Partner at Kuhnen & Wacker, delves into key considerations for filing a litigation suit, and defending against claims of infringement, at the newly implemented UPC.

aving started its work on June 1, 2023, the new European Unified Patent Court (UPC) has the competence to decide in particular on the infringement and validity of European patents with effect in 17 EU member states. Its jurisdiction covers both European patents with unitary effect, the so-called Unitary Patents (UP), which were also introduced on June 1, 2023, and conventional European patents which are essentially a "bundle of national patents". In the weeks before and after June 1, 2023, the operation of this Court and the points to keep in mind in proceedings before the UPC were the subject of many written contributions and seminars. In this article, which is not intended to be exhaustive and was prepared as an input to reflection and further discussion, we will



Detlef von Ahsen

explore how to best prepare for potential litigation before the LIPC

While claimants are able to carefully prepare proceedings before bringing an action, there are still many things they need to be aware of.

However, the position of defendants, which is naturally less favorable in this respect, should also not be forgotten here.

#### The frontloading system of the UPC

The system underlying the Unified Patent Court is called a frontloading system. This means that the entire submissions of the parties, including all evidence in support thereof, must be provided as soon as possible, ideally at the same time as filing the statement of claim or of defense. The subsequent submission of new facts or evidence is only allowed within very narrow limits and should therefore be avoided from the outset.

This means that a patent holder who intends to bring a patent infringement action should first thoroughly investigate the facts and procure all evidence in support of the action. If possible, test purchases should be conducted to analyze the subject matter suspected of infringing on IP rights. It is also essential to find out more about the precise nature and characteristics thereof by thoroughly searching the web for operation manuals and other information material. The use of private investigators may also be a good way of gaining deeper insights. It is moreover crucial to precisely identify the alleged patent infringer, to avoid any risk of suing the wrong person.

#### Résumé

#### Detlef von Ahsen, Partner, European Patent Attorney

Detlef studied mechanical engineering and has been awarded a master's degree of Diplom-Ingenieur. He is a German and European Patent Attorney and a European Trademark and Design Attorney as well as a European Patent Litigator who specializes in the fields of mechanical engineering, thermal, and sound insulation technologies as well as electrical, chemical, and biological engineering. Detlef also has experience in the oil and gas industry and has been involved in many litigation cases. Prior to joining K&W, he worked as a patent attorney with his own law firm and as a product engineer with Baker Hughes Inteq. He has lectured and recently presented seminars in Germany, the USA, and China.

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Thus, the patent proprietor has to do a great deal of "homework" to acquire all evidence to support its case before drafting or even filing a motion with the Unified Patent Court.

Yet, what if not all necessary evidence can be produced but is in the possession of the accused defendant or a third party?

#### **Procurement of evidence**

In view of the above-mentioned fact that not all the evidence is always readily available, Art. 60 of the UPC Agreement (UPCA) and the related Rules of Procedure (RoP) provide the possibility of demanding that an infringer or a third party provide any evidence that lies in its control. The UPC may also order an inspection of the premises of the alleged infringer or the third party. This may even be carried out by way of a provisional injunction without a prior hearing and without notice to the alleged infringer or third party (so-called *ex parte* injunction).

However, even after the start of infringement proceedings, the Court may still order, at the request of a party, that the adverse party or a third-party present evidence that lies in its control (Art. 59 UPCA).

This requires, however, that based on the existing means of evidence there must be a sufficient degree of probability of the patent being infringed. This likelihood is not precisely defined and remains to be established by case law of the UPC. Here as well, just as in the German procedure, the degree of probability will presumably be higher the more deeply the alleged infringer or the third party is affected by the provisional injunction. It is generally also true here that a patent holder must make every effort to secure its position as best as possible by suitable evidence. In other words, as mentioned above, the patent holder must first do their "homework".

#### Positions of the patent holder and accused infringer

While a patent holder has ample time to prepare very carefully before bringing an action, the accused infringer only has three months from the service of the statement of claim to prepare and file its statement of defense (Rule 23 RoP). This is very little time considering that a counterclaim for revocation of the patent in suit must possibly also be filed within this time limit. This period is even far too short if a search for suitable prior art is started only after service of the statement of claim. Therefore, now, more than ever, entrepreneurs are strongly advised to extensively monitor the Patent Gazette so as to permit both the timely detection of patents and patent applications in the respective technical field and their risk assessment. This early handling

might still leave enough time to even lodge an opposition at the European Patent Office within the nine-month opposition period and, thus, at a much lower level of financial risk.

Generally, however, a patent holder should first cond a worning letter to the gunnetted.

Generally, however, a patent holder should first send a warning letter to the suspected infringer before commencing proceedings since, according to the rules of the UPCA, it would otherwise incur the risk of having to bear the litigation costs even in case it prevails in the dispute if this failure to warn has created unnecessary costs to the defendant (Art. 69 (3) UPCA). Therefore, very careful research should be done when a warning letter is received at the latest. The response to the warning letter should then also inform the patent holder of the prior art found since the defendant, in turn, also runs the risk of having to bear the adverse party's costs if these were unnecessarily caused (Art. 69 (3) UPCA). For this reason, it is generally advisable to respond to warning letters to the fullest possible extent rather than ignore them.

The question of how such a search should be carried out would provide enough material for several days of seminars. However, in essence,





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it can be said that an "investigative patent search" should not be limited to conventional patent databases but should involve other search strategies as well. Indeed, it is always surprising to discover how many patent holders advertise their inventions on their own homepage before filing a patent application. It is therefore often worthwhile using a Wayback Machine to find defunct web pages. YouTube is also a very popular advertising platform and sometimes hosts advertising videos that prematurely disclose an invention and thus constitute citeable prior art. In fact, patent applicants from non-EU member states, particularly the United States, are often even unaware that in Europe there is no such thing as a grace period during which the novelty of the invention is protected from early disclosure. However, surprisingly many mistakes are also made in this respect by European companies. The German National Library, which is one of the largest libraries in the world and archives all German and German-language publications since 1913, is a good example here as it may have some surprises in store. As mentioned, there are many more ways of obtaining vital information, but that would go beyond the scope of this

#### Steps to take during the threemonth time period for delivery of statement of defense

From the above statements it is clear that comprehensive action must be taken within the three-month time period for delivery of a statement of defense. It is therefore vital that you start doing your "homework" right after receiving a warning letter and definitely right after service of the statement of claim. You should immediately take your patent attorney on board and set up a team of your own contact persons who will assist the legal team.

#### The right legal team

Another question is what makes a good legal team. Due to the complexity of proceedings and the tight deadlines, the parties will not be able to evade the necessity of setting up a more or less large legal team in which each member takes care of individual aspects of the proceeding. So how exactly should a successful legal team be built?

I keep hearing that UK law firms should also be taken on board since almost all the local divisions, the Nordic-Baltic regional division, and the central divisions offer English as the language of proceedings. However, when talking to the judges, you will hear quite often that they are not English native speakers. In fact, the UPC divisions will have a multinational composition, with judges having to be nationals of a Contracting Member State. This means that the

While a patent holder has ample time to prepare carefully before bringing an action, the accused infringer only has three months from the service of the statement of claim to prepare and file its statement of defense.

UK, once designated to host one of the central division courts, will not be represented due to its decision to withdraw from the Unitary Patent System. The judges appointed so far mostly come from Germany, the Netherlands, France, Italy, and Sweden. It is also worth noting that local and regional division panels consist of three legally qualified judges, only two of whom may be nationals of the hosting country. A technically qualified judge may be added to a panel at the request of a party or at the initiative of the panel. The nationality of this additional member depends on the technical field at hand and the person's technical expertise. It would not be surprising if these multinational judges were at first to handle cases from a purely national perspective. Only in the long run will a uniform and truly European approach be developed by the Court of Appeal. It might therefore not be a bad idea to set up the legal team, at least initially, also with a view to the multinational composition of the panels. Mother tongue is not everything. Entrusting highly competent and qualified non-native speakers might actually be an advantage in this multinational context, provided they have a very

good command of the English language. Not only lawyers but also European Patent Attorneys who are entitled to act as professional representatives before the European Patent Office and who have appropriate additional qualifications are fully authorized to practice before the UPC ("European Patent Litigators"). Therefore, unlike in the case of national German infringement proceedings, European Patent Attorneys are not reliant on the participation of a lawyer. Given that both patent infringement and patent invalidity are first and foremost technical matters, it is my personal opinion as a patent attorney and President of the Federal Association of German Patent Attorneys that patent attorneys are the most important team members and are in any case indispensable in infringement proceedings before the UPC.

As mentioned above, these are just a few thoughts on how to prepare for litigation before the UPC that I hope will provide a good basis for discussion

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## Combating infringement in Chile

Pedro Videla, Attorney at Law at Johansson & Langlois, evaluates the available protection for patents of invention in Chile – and entry point for goods destined for Latin America – including available board measures.

his article intends to provide notions on the legislation of patents of invention in Chile, with special reference to rules for adequate enforcement of these rights, as well as those related to border measures. Overall, in our opinion, they embody strong legislation on this matter, meeting high international standards assumed by our country as a result of the relevant international treaties it has signed.

The foregoing is particularly relevant since Chilean ports – especially in the north of the country – are a point of entry for goods destined for several Latin American countries such as Bolivia, Peru, Paraguay, Uruguay, Argentina, and Brazil. This will also be strengthened when the terrestrial bioceanic corridor (currently under construction) which crosses the region between the Pacific Ocean and the Atlantic Ocean, is completed.

Intellectual Property broadly includes patents, utility models, industrial drawings and designs, layout designs or topographies of integrated circuits, trademarks, appellations of origin and geographical indications, as well as the regulation of matters related to trade secrets.

Consequently, patents constitute the right granted by the State to an inventor for exclusive



Pedro Videla

and excluding use for a given period of time, preventing third parties from exploiting it, unless they are authorized by its owner, for instance, through a licensing contract.

Patents represent the major legal instrument to protect an invention and an undeniable source of technology generation and human capital valorization, therefore contributing to the development of countries.

#### Résumé

#### Pedro Videla

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The enforcement of industrial property rights in Chile can be achieved through both civil and criminal actions brought before the relevant courts.

Moreover, specific means are established by law to prevent products infringing intellectual property legislation from entering the market or for their removal from the market.

Civil actions seek to halt the illegal act and/ or obtain compensation for damages caused to the owners of Industrial Property rights as a consequence of unauthorized use of a patent of invention.

Interestingly, the Law of Industrial Property expressly regulates or establishes clear and precise guidelines for the Judge on how to determine damages, as follows:

- a) Profits that the holder of rights would have ceased to earn as a consequence of the infringement;
- b) Profits that the infringer would have earned as a consequence of the infringement;
- c) The price that the infringer would have paid to the holder of rights for the granting of a license, considering the commercial value of the infringed right and contractual licenses that have already been granted.

**Criminal actions** seek to apply penalties expressed in fines for fiscal benefit against the infringer of a Patent of Invention. The fines are from USD 2,000 to USD 75,500.

In effect, articles 52 and 53 of our Law 19,039 on Industrial Property establish the following rules for the fines:

Article 52. A fine, for fiscal benefit, of USD 2000 to 75000 will be imposed upon:

 a) Those who maliciously manufacture, use, offer, or introduce into the market, import, or are in possession of a patented invention for commercial purposes. This will be so notwithstanding the provision of No. 5 of Article 49.

- Those who, for commercial purposes, use a non-patented object, or whose patent has expired, or has been canceled and using on such object indications corresponding to a patent or simulating such indications.
- Those that maliciously, for commercial purposes, use a patented procedure.
- Those that maliciously imitate or use an invention whose application is pending, unless the patent is eventually not granted.

Those convicted according to this Article will have to pay the court costs and the damages caused to the owner of the patent.

Tools and elements directly used in the commission of any of the crimes mentioned in this Article and the objects produced illegally will be confiscated. Illegally produced objects will be destroyed. In case of tools or elements used, the competent court will decide their destination and may order their destruction or their distribution to charity.

Those who re-offend within five years from the date of a fine will be subject to another fine which cannot be less than twice the amount of the first fine, with a USD 2,000 cap.

Article 53. Any patented object must be indicated in a visible manner, either in the product itself or its container, preceded by the expression "Patent of Invention" or the initials "P.I.", followed by the registration number.

Process patents that, due to their nature, cannot comply with this obligation are exempted from the above obligation.

The omission of this requirement, will not affect the validity of the patent. However those not complying with this obligation shall not be able to exercise the criminal actions provided for by

In the case of pending applications of products being manufactured or sold for commercial purposes, this situation must be informed.

The body in charge of criminal actions corresponds to the Public Ministry-Ordinary Courts of Justice with criminal jurisdiction.

**Border measures** constitute another form of protection; defined as the actions taken by customs authorities of a country in relation to goods moving into and from its territory and which are subject to its legal authority.<sup>1</sup>

By means of seizures or detentions conducted by the National Customs Service, border measures seek to prevent the entry or exit from the country of products infringing industrial property rights. These measures, however, have proved to be very effective in the fight against trademark counterfeiting, but not in the case of patents of

invention, due to the difficulty of identifying infringed patents.

Chile has pioneered in the region by adopting economic policies of openness to the world, signing a considerable number of international free trade agreements, generating an increase in foreign investment and a natural increase in international trade and traffic conducted through the country's coasts, borders, and airports.

A substantial proportion of the increase in the inbound traffic of goods to Latin America through Chile originates in China, and this is due to the Free Trade Agreement signed with China in 2005, which has since become our country's main trading partner.

In this context, customs regulations have also been adjusted to the new methods of committing customs offenses and related crimes. Its legislation has been updated through Law No. 19,912, in order to comply with the regulatory obligations assumed by Chile in accordance with the Agreement established by WHO, adopted in the Final Act of the Eighth Round of Multilateral Trade Negotiations of the General Agreement on Tariffs and Trade (GATT), signed on April 15, 1994, in Marrakech, Morocco.

The provisions of Law No. 19,912 supplement those of the WTO Agreement, enabling their direct application in the event of gaps in Chilean legislation, thereby reaffirming the significance of these agreements for Chile.

As regards Industrial and Intellectual Property, although Law No. 19,912 clearly establishes that counterfeiting and piracy are of interest to the affected rights holder, it also concerns a matter of common interest.

Chile possesses a solid customs control system, contained in Article 16 of Law No. 19,912 governing the suspension of the clearance of goods ordered *ex officio* by the authority:

"Customs authorities may, ex officio, impose the suspension of the release of merchandise when a simple examination indicates counterfeit trademark merchandise or that such merchandise infringes copyrights.

In such cases, Customs shall inform the rights holder, if identified, of the eventual infringement so that he/she may exercise the right to request a suspension, to demand all applicable rights pursuant to the preceding regulations and, in particular, to provide information on the authenticity of the goods. Customs shall, in addition, file the complaint, in accordance with the law.

The suspension of clearance ordered by Customs in accordance with this article may

The issues of control of goods and copyright infringement have acquired great relevance in Chile, becoming one of the present priorities of the National

**Customs** 

Service.

suspension, the goods shall be cleared in accordance with Article 11.

The relevant customs office shall designate the owner, importer, consignee, warehouse, or a third party as custodian of the

comprise a maximum period of ten working

received ordering the continuance of the

days, after which, if no notification is

the owner, importer, consignee, warehouse, or a third party as custodian of the merchandise, under the responsibilities referred to in Article 12 or place the merchandise at the disposal of the relevant court, as the case may be.

In any case, the appropriate customs office may always collect a representative sample of the merchandise for its examination or for its submission to the relevant court."

Therefore, the suspension of merchandise has a period of 10 working days, counted from the notification of the suspension.

Within this period, the holder of rights must file a lawsuit or complaint and request the maintenance of the suspension order. If such action is not filed or the maintenance of the suspension is not requested, the consignee may petition for the release of the merchandise.

Customs authorities' notification is essential for the holders of intellectual or industrial property rights to be able to take appropriate action and provide information concerning the features of the protected product. The National Customs Service may provide information by any means allowing the necessary expediency to promptly file the action.

Documenting this communication is essential for the avoidance of any liability on the part of the administrative authority that could arise from eventual accusations regarding the lack of timely communication. For that purpose, the e-mail available in the INAPI or Customs database is generally used with a concurrent telephone call.

The Law clearly states that, in accordance with the Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPS), the issues of control of goods and copyright infringement have acquired great relevance in Chile, becoming one of the present priorities of the National Customs Service.

On a final note, we must emphasize that our National Customs Service maintains a low level of corruption as demonstrated by the findings of "Transparency International" (2010), placing Chile as the country with the lowest perception of corruption in all of Latin America, thereby enhancing the supervisory work of the National Customs Service which we hope will continue to be strengthened and adapted to our new times.

THE PATENT LAWYER

Vrins, M. S. (2007). 'The magnitude and economic and social consequences of counterfeiting and piracy'. in, Enforcement of Intellectual Property Rights through Border Measures -Law and Practice in the EU. London: Oxford University Press.

**Criminal** 

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# Intellectual property operations: wrapping up key ingredients for a strong patent portfolio

Stephanie Sanders, Managing Director in the Legal Function Consulting Practice and Americas IP Operations Leader at EY Law, deconstructs the foundations of IP operations to explain how it can assist in developing a robust patent portfolio to ensure the continued functionality of IP with business goals in mind.

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icture a burrito. On the inside, you have a protein – maybe chicken, carne asada, barbacoa, or beans – and toppings, such as veggies, shredded lettuce, cheese, pico de gallo, and guacamole. And to keep it all together, you have a soft tortilla that encases the filling to help marry the flavors and serve as a convenient way to handle this delectable meal.

Now, imagine the burrito represents all that is needed to create, manage, and maintain a company's IP portfolio.

- The protein is the outside counsel who draft and prosecute applications and advise clients on the preferred legal approach to protecting and enforcing their intangible assets.
- The toppings are all of the people, processes, and technology needed to

- manage those assets: paralegals and docketers, docketing and workflow, and an intellectual property management system (IPMS).
- The tortilla is IP operations. It is the wrapper that keeps all of the components together, working in harmony to boost the company's protection, while reducing risk.

Of course, one of the worst things that can happen when eating a burrito is that the tortilla falls apart. Maybe it was overstuffed and the tortilla couldn't hold it together; maybe it was soggy and the tortilla started to disintegrate; or maybe the whole thing just fell apart because the tortilla wasn't warm enough to stick to itself. In any event, without the tortilla, you are left with some delicious components, but it is no longer the culinary perfection that is a burrito.

It's the same with an IP portfolio. If the company's IP operations (tortilla) aren't doing the job of holding these ingredients together, while you may still have an IP portfolio and many of the components necessary to keep filing applications - prosecuting them to allowance or registration, maintaining the patents and trademarks, and enforcing and monetizing the assets - you won't have effective and efficient IP operations that

support the company's IP strategy and ultimately serves the company's key objectives and results. Instead, you'll have a collection of IP ingredients just lying around – much like a failed burrito.

This article will describe how a company can create and maintain successful IP operations. We will cover the first step, developing a patent strategy, which enables the company to clarify why it is developing a patent portfolio. Next, we will discuss how to select activities to operationalize (i.e., develop IP operations) that can help the company meet its overall goals. And, finally, we will describe how to measure and adapt existing IP operations to help the company ensure that the function continues to be effective.

Because this is *The Patent Lawyer* Magazine, and to keep things simple, this article will focus on patents. The aspects of IP operations discussed assume a patent portfolio of some size in order to justify the resources needed to create an IP operations function as described; those companies with smaller portfolios or more specific needs – such as those in highly regulated industries – may need to adjust up or down to suit their specific situations. Please also note that the ideas and suggestions outlined may apply to trademark, copyright, trade secret, and know-how management, depending on the situation, however, nothing in here constitutes legal advice, nor should it be interpreted as such.

#### What kind of burrito do you want? Developing a patent strategy

A patent strategy is a focused approach to protecting a company's innovations, products, and technologies through the acquisition, management, enforcement, and use of patents in jurisdictions that are important to the company's business. A well-crafted patent strategy should not only safeguard a company's competitive advantage (e.g., by preventing others from using, making, or selling its patented inventions), but should also reflect the company's goals related to commercialization, monetization, and enforcement. A company's patent strategy should also align with its overall business objectives and key results, as well as the company's values.

To develop a patent strategy, a company should answer the following questions.

#### 1. What are our key innovations and intellectual property assets?

Identifying the core technologies and inventions that provide a competitive advantage is the first step in determining which areas to prioritize for patent protection.

When considering this question, it is important to remember that sometimes the company's key innovations are outside of its core product or service lines. For example, a pharmaceutical



Stephanie Sanders

Identifying the core technologies and inventions that provide a competitive advantage is the first step in determining which areas to prioritize for patent protection.



#### Résumé

**Stephanie Sanders** is a Managing Director at EY Law in the Legal Function Consulting practice and is the Americas IP Operations Leader. She works with clients to transform their IP operations to better align the organization's tactical IP portfolio management with its overall IP strategy and goals, while balancing appropriate protection and risk management with cost efficiencies. Stephanie began her career as a patent Examiner at the USPTO, and prior to joining EY Law, she handled patent prosecution and litigation at private law firms. She has also served as an executive managing IP operations for a premier US IP boutique and AmLaw 100 law firm.

company that develops a new app for patients taking part in clinical trials might consider including software protection as part of its patent strategy. In another example, a company may determine that it has created valuable innovations in its unique supply chain processes, prompting a strategy that focuses on patenting those logistical methods.

#### 2. What is our target market and where do we plan to operate?

Understanding the geographical scope of your business helps inform the analysis of the jurisdictions in which to seek patent protection.

When considering geography, a company should not focus solely on where it sells its products or services, but also on locations where it has manufacturing, supply chain resources, and key partnerships. Decision making around geographical protection might also include an analysis, in consultation with legal counsel, of where enforcement efforts may be successful so as not to waste resources in a place where the patent system is not as strong.

#### 3. What is the primary purpose of our patents?

Two common reasons to file patents are to protect against infringement and generate revenue.

If protection is the primary goal, the company might seek to protect market share and revenue by actively pursuing litigation against competitors who infringe on the company's patents. If the company doesn't want to spend the time or resources, or potentially risk harming existing goodwill in the market by litigating against potential infringers, it might regard its patents primarily as a deterrent against potential infringement. In such a scenario, when infringement is identified, the company might work with legal counsel to explore ways to amicably resolve disputes with the potential infringer (e.g., through licensing or other arrangements).

If the company seeks to monetize its patents, it may look for opportunities for collaboration and cross-licensing with other companies and/or opportunities to sell patents (retaining a right to license) on innovations of lesser-importance or which the company is not practicing.

#### 4. How does our patent strategy align with our business goals and timeline?

Consider whether your strategy is geared toward short-term protection, long-term value, or a balance of both, and ensure it complements your overall business strategy.

In one example, a company's primary business goal might be to bring a new product to market quickly – which may be critical for start-ups or emerging businesses at an established company. Effective IP operations are the sturdy wrapper that protects a company's patent portfolio and helps it manage and realize its patent goals.

In that case, the company may opt for a strategy that focuses on securing patents for the product's core features as quickly as possible. Alternatively, if the company's primary business goal is to establish a strong patent portfolio as a long-term asset, perhaps to position the company for future acquisition, it may adopt a strategy that emphasizes comprehensive protection, growth, and long-term value over quick returns.

#### Build your burrito: operationalizing the right activities to meet the company's patent strategy

Creating effective IP operations is key to ensuring that the company's patent strategy is executed through day-to-day activities and processes, with the right people and technology to support it. This linkage is essential for translating the company's strategic vision into tangible results.

In addition to deciding what to operationalize to ensure that the company's IP operations support its patent strategy, it is critical to know whether those operations are, in fact, working. A company can make that determination by setting Key Performance Indicators (KPIs) and measuring outcomes (more on that below).

Here are a few ways a company might operationalize around an example set of goals set forth in its patent strategy:

Goal	Operationalize	Measure (KPI)
Protect software innovations	Create a culture that values IP with software engineers to maximize invention capture and cooperation     Draft new applications to withstand challenges related to software patenting	Number of disclosures from software engineers     Patents filed and granted on software innovations     Software patent enforcement activity outcomes
Expand into a new jurisdiction:	Select local outside counsel with strong software background	Number of patents granted in the new jurisdiction
Generate revenue	<ul><li>Valuation</li><li>Identifying potential licensees and/or buyers</li></ul>	Number of patents licensed and/or sold     Yearly revenue     One-time sales

#### How is your tortilla holding up? Measuring and adapting IP operations

Whether a company's IP operations are effective is entirely dependent on whether the company is meeting its patent goals. It is critical to

regularly measure the company's patent portfolio against its stated patent strategy by selecting an appropriate set of KPIs.

Patent attorneys like numbers, so quantitative KPIs are going to be the most comfortable. But, since people are a core component of IP operations, a company should use qualitative measures as well as those that can be given a numerical score. Here are a few examples.

Category	Quantitative	Qualitative
IP spend	Total spend     o By product/     business unit     o By jurisdiction     o By outside counsel/     vendor     o As a percentage of     revenue/R&D     budget	Alignment of spend with strategic and business goals     ROI on IP spend
Expand into a new jurisdiction:	Cycle time     Budget vs. actual     Number of late filings	Adherence to     OC guidelines     Work quality     Stakeholder     satisfaction
Internal IP operations	<ul> <li>Matters/applications/ registrations per person</li> <li>Spend per person</li> <li>Disclosures vs. filings</li> <li>Number of firms and vendors used</li> </ul>	Stakeholder satisfaction, including inventors, marketing     Integration of IP operations team with business
Portfolio	Number of active applications, number of patents/trademarks in force     Number of assets licensed out     Product-to-asset maps	Portfolio "quality"     Valuation (e.g.,     as loan collateral)

If a company is not meeting its patent goals, it should assess how the relevant operationalized activities – and the associated people, processes, and technology – are missing the mark and adjust accordingly. For example, if the number of grants in a desired country has decreased – despite a goal of increasing protection in that jurisdiction – the company should look into whether its counsel in the country is as experienced with software inventions as needed to meet the goal. The results of these investigations may result in adjustments to the company's IP operations to keep it on track to meet its patent goals.

Even a company that regularly confirms that its IP operations are allowing it to meet its patent goals and a company's patent goals may change over time. Much like overall strategic planning, it is important for a company to regularly revisit what it hopes to accomplish with its existing patent portfolio and whether to adjust its strategy. And, if so, its IP operations and KPIs should be updated accordingly.

#### Time to eat: conclusion

The best burritos are wrapped in a soft, yet sturdy, tortilla that perfectly holds together an array of delicious components in one delectable package. Similarly, effective IP operations are the sturdy wrapper that protects a company's patent portfolio and helps it manage and realize its patent goals.

#### Contact

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## A brief introduction to the latest examination

# the latest examination practice for partial design application in China

Ms. Zhu of CCPIT Patent & Trademark Law Office provides guidance for preparing partial design applications to ensure grant success in the Chinese patent system.

ccording to the fourth revision of the Patent Law of the People's Republic of China (herein below, called CPL), China began to allow partial design applications from June 1, 2021. Then, the China National Intellectual Property Administration (herein below, called CNIPA) issued the draft revision of the Guidelines for Patent Examination (herein below, called Guidelines) in August 2021, and again in October 2022, the CNIPA issued the re-draft revision of the Guidelines, where the regulations on protected object, product's name, brief description, drawings, judgment on similar designs and etc. for partial designs are subjected to public consultation.

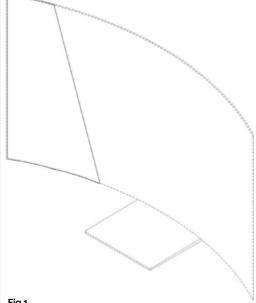
Although the formal revision of the Guidelines has not yet been released, the CNIPA begins to examine partial design applications basically following related regulations of the draft/redraft revision of the Guidelines from the first half of 2023, and some partial design applications have been patented. According to the latest examination practice, the author summarizes the examining focuses or common objection types unique to partial design applications, as well as application filing or responding strategies as follows:

#### 1. Protected object

According to the draft/re-draft revision of the Guidelines and the latest examination practice, the claimed portion should form a relatively independent area on the product or constitute a relatively complete design unit. For example, a transition line of a cup, or an arbitrary portion of a screen such as shown in Fig. 1 are not eligible objects for a partial design.



Ms. Znu

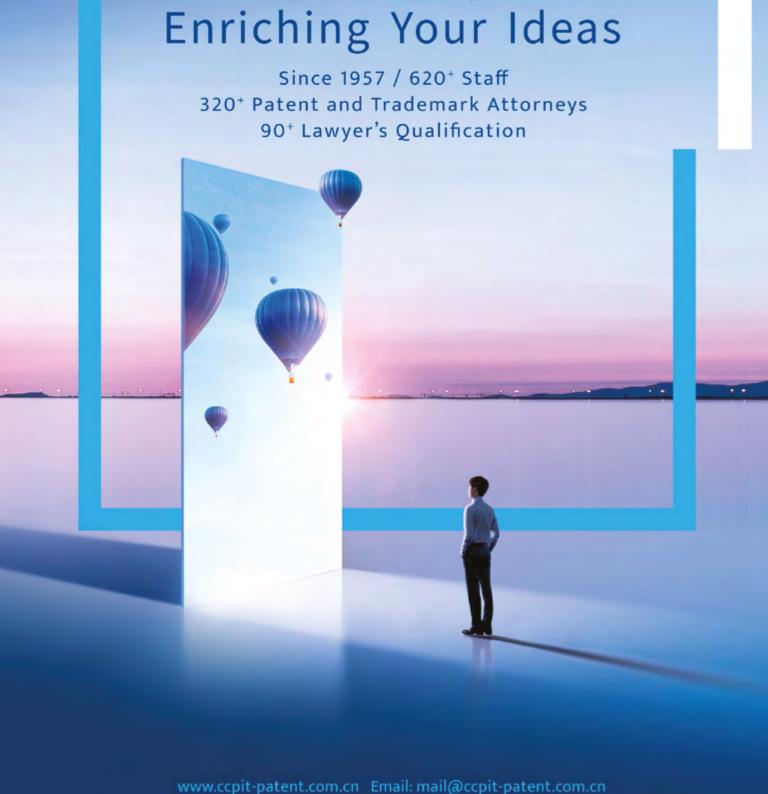


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In this regard, the common objection types are that the claimed portion(s) are arbitrarily divided, or that the claimed portion(s) cannot form an enclosed/complete area on the product. To

#### Résumé

**Ms. Zhu** has been engaged in IP work for nearly 10 years. She has successfully handled hundreds of patent drafting, patent filing, patent prosecution, patent reexamination, patent invalidation, patent search, legal opinion on patent infringement, and FTO opinion cases, covering various technical fields, particularly the fields of mechanical engineering, material engineering, medical equipment, and designs.



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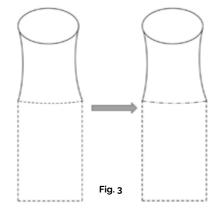
overcome this kind of objection, some advisable responding strategies are as follows:

 Explaining that the claimed portion(s) are physically or visually separable from the rest of the product, such as shown in Fig. 2 (see CN308234853S);

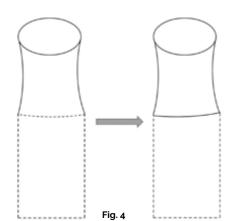




 If there is no structure line on the boundary, changing certain broken or solid line(s) into boundary line(s) which divide the claimed portion(s) from disclaimed portion(s), such as shown in Fig. 3, or adding boundary lines;



 If there is structure line(s) on the boundary, converting certain broken line(s) into solid line(s), such as shown in Fig. 4, and vice versa to make the solid line(s) form an enclosed area;



4. Arguing that the discontinuity of solid line(s) is owing that part(s) of the claimed portions are covered by the disclaimed portion, and such covering is inevitable in the use state of the product, as shown in Fig.5 (see CN308201028S).

Fig. 5

The common

objection

types are

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the claimed

disclaimed

overlapping

to distinguish

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solid lines.



Please kindly note that, in this regard, the examiner has a relatively large discretion, and different examiners may have different yards. It is strongly recommended to conduct a telephone interview with the examiner to dig out an acceptable response solution. In addition, amendments to the drawings should not bring about new-matter issues.

#### 2. Product's name

The product's name for a partial design should reflect both the claimed portion(s) and the whole product to which the claimed portion(s) belong.

In this regard, the common objection types are that the product's name is not suitable since only the whole product is reflected, or not all the claimed portions are reflected. To overcome this kind of objection, the product's name can be amended in the following four ways.

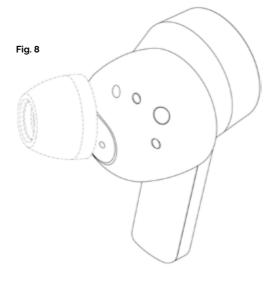
 If there is a known name for the claimed portion(s), the design can be named as "name of the product + name of the claimed portion", such as "the ear shield of a headset" shown in Fig. 6 (see CN308156581S);



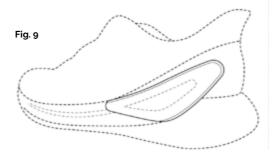
 If there is no known name for the claimed portion(s) but the location of the claimed portions is definite, the partial design can be named as "name of the whole product + the location of the claimed portion", such as "the front portion of an automobile" shown in Fig. 7 (see CN308058536S);



 If the claimed portion(s) occupy a majority of the whole product, the partial design can be named as "the name of the whole product + the main body", such as "the main body of an earphone" shown in Fig. 8 (see CN308270396S);



4. If there is no known name for the claimed portion(s) but the claimed portion(s) have a certain function, the partial design can be named as "the name of the whole product + XX function-portion", such as "the decorating portion of a shoe" shown in Fig. 9 (see CN308253351S).



Changing the protection scope via divisional application(s) is not allowed.

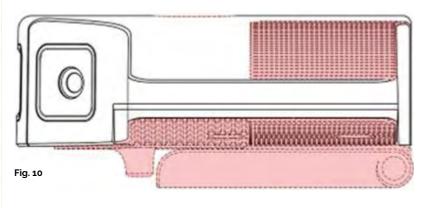


## 3. Ways to show claimed and disclaimed portions in the drawings

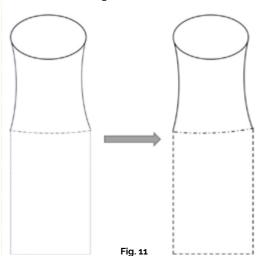
The partial design may use a combination of broken lines and solid lines, or cover portions of the product with a translucent color or monochromatic color to indicate the claimed/disclaimed portions.

In this regard, the common objection types are that it is impossible to distinguish the claimed portions from the disclaimed portion owing to overlapping of broken lines and solid lines, or the structure of the claimed portion(s) is not clearly shown, or the thickness of the broken lines and solid lines is uneven. To overcome this kind of objection, some advisable responding strategies are as follows:

 In the case of line drawings with broken and solid lines, the disclaimed portions can further be covered with translucent color or monochromatic color, as shown in Fig. 10 (see CN308186685S);



- Adding reference view(s) in the responding observation to assist in illustrating the structure of the claimed portion(s);
- 3. Amending the broken lines and solid lines to keep the same thickness as shown in Fig. 11.



Please also kindly note that, in this regard, the examiner has a relatively large discretion, and different examiners may have different yards. It is strongly recommended to conduct a telephone interview with the examiner to dig out an acceptable response solution. In addition, amendments to the drawings should not bring about newmatter issues.

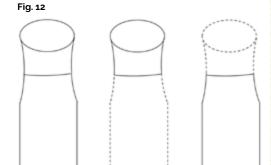
#### 4. Brief description

The brief description of a partial design shall indicate the name of the product, the use of the product (if necessary, the use of the claimed portion(s) shall also be indicated and correspond to the use reflected in the product's name), the characteristic feature of the design, etc.

In this regard, the common objection types are that the product's name does not reflect the claimed portion(s), the use of the claimed portion(s) is unclear. To overcome this kind of objection, it is recommended to amend the brief description accordingly.

#### 5. Similar designs

In terms of partial design, two similar designs shall direct to the same portion of a single whole product. The judgment on similarity is based on the claimed portions, and the whole product is used for determining the position and proportion of the claimed portion(s) in the whole product. Under normal circumstances, after an overall observation, if basic partial design and other partial design(s) have the same or similar design features, and the difference(s) therebetween lies in minor local changes, common design in the field, repeated arrangement of design units, conventional changes in the position and/or proportion of the claimed portion in the whole product, or changes in only the color, etc., these designs will generally be considered as similar designs. In addition, the design of the whole product and the design(s) of any portion(s) of the whole product generally cannot be filed as similar designs in one application. For example, the following three designs shown in Fig. 12 generally will not be considered as similar designs.



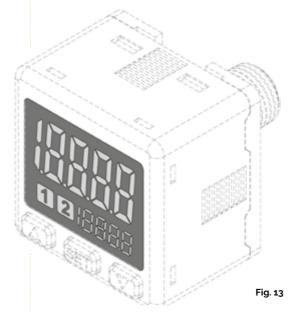
Within two months of filing an application, the applicant may amend the scope of protection.

In this regard, the common objection types are that the design of the whole product and the designs of portions of the whole product are not similar designs and cannot be filed in one application, or that multiple designs of different portions of the same whole product are not similar with each other. To overcome this kind of objection, the objected designs should be removed, and divisional application(s) can be filed to claim protection for the removed designs.

#### 6. Partial design of graphical user interfaces

For partial design applications of the graphical user interface (herein below, called GUI), the following types are acceptable:

1. A partial design with the whole GUI claimed and with a product (to which the GUI is applied) shown, wherein the applied product can be shown by broken lines or covered with translucent or monochromatic color, and the design can be named as "name of the applied product + XX function-GUI", such as "the pressure unit displaying GUI of a pressure sensor" shown in Fig. 13 (see CN308178570S);



2. A partial design with portion(s) of the GUI claimed and with an applied product shown, wherein the applied product and the disclaimed portion(s) of the GUI can be shown by broken lines or covered with translucent or monochromatic color, and the design can be named as "name of the applied product + XX function-GUI + XX functionportion", such as "the uploading and downloading module of the video and music managing GUI of a mobile phone" shown in Fig. 14;



- 3. A partial design with the whole GUI claimed and without an applied product, wherein there may be no broken lines or translucent color or monochromatic color in the drawings, the design can be named as "electronic device + XX function-GUI", such as "calendar GUI of an electronic device" shown in Fig. 15 (see CN308167687S);
- 4. A partial design with portion(s) of the GUI claimed and without an applied product, wherein the disclaimed portion(s) of the GUI can be shown by broken lines or covered with translucent color or monochromatic color, and the design can be named as "electronic device + XX function-GUI + XX functionportion", such as "the information displaying bar of the information displaying GUI of an electronic device" shown below in Fig. 16 (see CN308250665S).



can be shown in the form of blank, or the sign "XX" as shown in Fig. 17 (see CN308167687S), or monochromatic color or translucent color coverage as shown in Fig. 18 (see CN308146479S), and the



Fig. 15



Fig. 17

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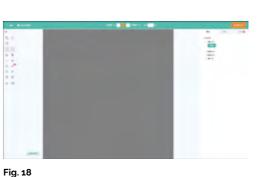
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China

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brief description indicates that related part(s) of the GUI are disclaimed portions.



#### 7. Divisional applications

For partial design applications, changing the protection scope via divisional application(s) is not allowed. In particular, if the former application claims protection for the overall product, it is not allowed to claim protection for portion(s) of the product via divisional application(s). For example, if the former application claims protection for an automobile, it is not allowed to claim protection for parts of the automobile via divisional application(s). On the other hand, if the former application claims protection for portion(s) of a product, it is not allowed to claim protection for the whole product or other portion(s) of the product via divisional applications.

#### 8. Timing for amendments

Within two months of filing an application, the applicant may amend the scope of protection, i.e., convert the claimed scope from a whole product into portions of the product and vice versa, or convert the broken lines into solid lines and vice versa, or increase or decrease or change the claimed portions and/or disclaimed portions. Except for this period, amendments may be allowed only in response to the office actions or to overcome obvious defects in the application documents.

In summary, although a formal revision of the Guidelines has not yet been issued, the examination criteria for partial designs are basically clear. The CNIPA starts to examine partial design applications before the formal revision of Guidelines is issued, and listens to the arguments or explanations from the applicants widely. Based on this, the Guidelines can be further revised, which is conducive to formulating the Guidelines more objectively, fairly, and realistically, and improving the quality of partial design patents in China.



Fig. 16

In addition, the content of the picture in the GUI

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## Womenin IP Leadership

Celebrating achievements and continuing the empowerment of women



This segment is dedicated to women working in the IP industry, providing a platform to share real accounts from rising women around the globe. In these interviews we will be discussing experiences, celebrating milestones and achievements, and putting forward ideas for advancing equality and diversity.

By providing a platform to share personal experiences we aim to continue the empowerment of women in the world of IP.

## Maria Boicova-Wynants: Partner, Starks

You want to

know what

truly

An interview: inspirations, experiences, and ideas for equality.

aria is an IP lawyer and strategy consultant empowering SMEs to sustain their competitive edge. Currently a partner at Starks, an IP and International trade law boutique in Ghent, Belgium, she also spearheads her own strategy consulting practice. With nearly two decades of experience, Maria is a Latvian Patent and Trademark Attorney, European Trademark and Design Attorney, and European Mediator in civil and commercial cross-border disputes. Her expertise encompasses IP strategy, contractual relations, and alternative dispute resolution. Holding an MBA from Vlerick Business School and LL.M. (MIPLM) from CEIPI/ University of Strasbourg, Maria currently serves as the Chair of the Committee for Quality in IP Management at 13PM, lectures at CEIPI, and contributes to ECTA's SME Task force.

What inspired your career?

It all started with a school thesis project. I was drawn into this incredible concept called knowhow, something I read about in a business journal. The more I dug into it, the more I realized I was falling head over heels for the entire realm of IP. That initial curiosity turned into a burning passion that has guided every step of my career.

Fast forward to 2004, a year that turned my passion into action. I snagged an opportunity to work as a summer intern at an IP law firm. That's where I got my first taste of the real deal – the practical applications of IP law. Let me tell you, that experience wasn't just eye-opening; it was soul- stirring. It deepened my love for the field and showed me the endless possibilities and challenges it holds.

You want to know what truly inspires me about IP?
It's the fact that it's alive, always changing and evolving. It's not just a set of rules; it's a force that

growth, and a guardian of creativity.

fuels innovation, a powerhouse driving economic

How have you found the pathway to your current position? And can you offer advice from your experience?

My career so far has been quite the adventure. I started in law in Latvia, reaching to Senior Associate position, then moved to Belgium, got myself an MBA, tried my hand at strategy consulting, and even delved into the world of risk management before landing where I am now.



If you would like the opportunity to share your experiences with Women in IP Leadership, would like to nominate an individual to be involved, or would like to learn more about sponsorship, please contact our Editor.

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It's like they say, the best way to eat an elephant is one bite at a time. And the best way to get somewhere is to keep moving forward, one small step at a time.

But through all these twists and turns, there was one thing that never left my side – my love for IP. It was like this guiding light that I just couldn't resist, something I found a way to bring into every role I took on.

Looking back, I've had the opportunity to explore various aspects of IP, whether it was within a law firm, consulting, or academia. Currently, I hold the position of European Trademark Attorney and partner in a Belgian law firm, drawing from a diverse range of these experiences. My journey has allowed me to develop a unique perspective – a blend of legal expertise, strategic thinking, and a global understanding of intellectual property.

If I am to give a piece of advice – I'd say, stay curious about the world around you! While intellectual property is amazing on its own, I'd tell anyone looking to make it big in this field to broaden their horizons. Get a deeper understanding of the business world. Trust me, it'll help you serve your clients better, give you a bigger picture, and let you come up with even more well-rounded solutions. Keep exploring, keep growing! It's a never-ending journey!

#### What challenges have you faced? And how have you overcome them?

It has been quite a rollercoaster. I've faced my fair share of challenges, but you know what's always pulled me through? Good old-fashioned determination and a strong support system.

I started in the IP world when I was pretty young and was met with quite some skepticism, partly because of my age and also because of my gender. But I didn't let that stop me, not for a second. I took on the challenge of juggling work and studies, and let me tell you, it demanded a boatload of perseverance over many, many years.

One key thing I learned along the way is the power of having a solid support system. Emotional support from people who truly believed in me, and practical support in the form of opportunities that came my way – I cherished every bit of it. You see, opportunities have this funny way of showing up when you actively go looking for them, even if you've had your fair share of setbacks. I've certainly had mine, from not getting into that first law firm I applied to (or even the second) to dealing with a pretty lengthy hospitalization during my university studies (and a whole bunch more in between). Then came the dream of pursuing an MBA, and oh boy, the financial hurdles seemed daunting.

Here's the thing – where there's a will, there's a way. I went all out, applying for every scholarship under the sun. I snagged one!

It's like they say, the best way to eat an elephant is one bite at a time. And the best way to get somewhere is to keep moving forward,

one small step at a time, but consistently and persistently.

But what really made all the difference was this: I have always had (and still have) this unwavering chorus of 'you can do it; we believe in you' echoing from my husband, my mom, friends, and colleagues. They have always provided the emotional scaffolding that helped me conquer every challenge that came my way. And that, in my opinion, is the real secret to overcoming anything life throws at you – the belief and support of those who stand by your side.

#### What would you consider to be your greatest achievement in your career so far?

When I was 23 years old, I undertook the challenge of passing the qualifying examination for a Latvian patent attorney - a feat that hadn't been accomplished in Latvia for several years before me. I vividly remember the paralyzing fear I felt when I signed up for the exam, but... despite the daunting odds, I passed, becoming not only the youngest person to achieve this qualification in Latvia but also the first one in a long time. What allowed this to happen was - again - being always in search of opportunities, coupled with the unwavering support I received. My mom, believing in me with all her heart, and the managing partner of the law firm where I worked demonstrated incredible understanding and support as I juggled intense work hours and evening university classes... their belief in my abilities and encouragement helped me surmount the challenges, proving that with determination and a strong support network, even the most formidable obstacles can be overcome.

Yet, you know what's an even more remarkable achievement to me? It's not the certificates, the medals, or the fancy titles I earned. It's not the recognition I received.

No, the most profound achievement for me is this: I found my true professional passion. I discovered a field that sets my soul on fire, and I have the chance to keep growing in it. This, right here, is my heart's calling, and every day I get to live it. It's amazing!

#### What are your future career aspirations? And how will you work to achieve them?

In a nutshell, my career aspirations are all about diving further into exciting opportunities that let me use what I know, my skills, and my passion to make a real impact.

I'm super keen on shaping IP policy. I might not know the exact position that'll get me there, but I truly believe that as we move forward, the right path unfolds. And you can bet on it, I'm always moving forward!

Mediation is another realm where I see boundless potential for myself to further grow. I've been honing my mediation skills and weaving its principles into my professional journey for well over a decade now. And I am absolutely certain that the inherent qualities of empathy and active listening (qualities often associated with women, by the way), are the secret sauce in this field. It's like we have this superpower to bridge gaps and bring harmony! But I'm not stopping there. I want to take this passion of mine even further and be the spark that ignites the fire in other women in the world of IP. I want them to see what's possible and join me on this incredible journey.

But even that's not all!

Another one of my big dreams is to breathe new life into my side gig of executive coaching, mentoring, and training. I see oceans of potential here, especially in uplifting young women. That could be the niche direction I dive into headfirst. You see, I am a die-hard believer in the magic of mentorship and unwavering support. And I am fully committed to paying it forward by guiding and empowering women. Not just in IP! We're talking about entrepreneurs, activists, scientists, you name it. I'm driven by this unshakeable belief that women are reservoirs of incredible strength and untapped potential, and more often than not, all they need is someone who believes in them and gives a hand.

Remember that support system I talked about earlier? Well, I'm lucky to have it, but I also know how to build it, and I am itching to share that knowledge to help others rise and shine!

### What changes would you like to see in the IP industry regarding equality and diversity in the next five years?

In my ideal world, I want to see equality and diversity not as just fancy words we throw around, but at the heart of everything we do in our professional lives. Imagine a future where we not only offer empowerment and emotional support but actively encourage it. It's about realizing that our unique qualities aren't hurdles; they're hidden superpowers just waiting to be unleashed.

I'm all about this vision where every single voice, no matter the gender, race, or background, isn't just acknowledged but celebrated. Our differences? They should be our secret weapon, giving us fresh perspectives and making our problem-solving skills unbeatable.

And oh, I dream of a world where mentorship isn't just a checkbox but a genuine commitment to guiding the next generation. Imagine: initiatives that tear down barriers, making sure everyone, especially those who haven't had much representation before, has a fair shot in our field.

That's the future I'm hustling for – a future where our differences aren't just accepted, they're our biggest source of strength and innovation!

How do you think the empowerment of women can be continued and expanded in the IP sector?

First off, let's talk education. We can open up so many doors for young women by offering scholarships, sponsorships, and mentorship programs. Imagine giving them the tools and guidance they need to truly shine! Plus, we can spread the word about the amazing things women in IP are achieving. I'm talking big campaigns that inspire girls to think, 'Hey, I can do that too!'

Mentorship is huge. We can create these fantastic mentorship programs within companies and the broader IP community: experienced female mentors teaming up with newcomers. A safe space where they can share knowledge, talk about challenges, and make some really important connections.

Oh, and flexible work arrangements! They make a world of difference. Let's not just talk remote work and flexible hours, let's go for it – the whole deal. It means women can juggle their professional and personal lives without feeling like they're constantly stretched thin.

And then there's leadership training. We can offer tailored programs that give women the skills they need, things like negotiation, strategic thinking, and decision-making. And hey, why stop there? Let's support their continuous learning, making sure they're always at the top of their game. With these steps, we're not just talking about empowering women in IP. We're making it happen, creating a future where every woman in this field feels strong, capable, and ready to take on the world!

And I am absolutely certain that the inherent qualities of empathy and active listening (qualities often associated with women, by the way), are the secret sauce in this field.

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## Sandra Pohlman: Co-founder and Partner, df-mp

#### An interview: inspirations, experiences, and ideas for equality.

andra Pohlman is co-founder and partner of df-mp. She heads the firm's large and diversified biotechnology and pharmaceuticals practice group together with Dr. Dörries. A main part of her practice is oppositions and prosecution before the European Patent Office. where she has consistently obtained favorable results for her clients. Additionally, Sandra is qualified to practice before the Unified Patent Court (UPC), the German courts, and is a registered US Patent Attorney.

She has served as lead counsel in notable opposition cases relating to patents for blockbuster drugs and groundbreaking technologies including, more recently, Tecfidera®, Tysabri®, and attacking and defending CRISPR patents. In IAM 1000: The World's Leading Patent Practitioners 2013-2023, Sandra was recommended for her expertise in patent prosecution and invalidity it's really actions including the following comments about her skills: "She displays a matchless knowledge of her law, her writing is brilliant, and she is technical hugely responsive", and: "She can handle highpressure briefs with a cool head and is the first choice for North American law firms".

#### What inspired your career?

My mother inspired me to become a patent attorney. She worked at a patent law firm in New York as a paralegal, so I was confronted with this career at a young age and I pretty much knew I wanted to be a patent attorney when I went to college at 18 - which people thought was very strange! With the path already in mind I decided to study first biology and then law.

#### How have you found the pathway to your current position? And can you offer advice from your experience?

The pathway to my current position was, I think, unconventional because I actually started out as a US patent attorney but for most of my career I have lived and practiced in Germany. I'm from the US and I undertook my entire education, including law school, there. I met my husband in my final year at The George Washington University Law School in Washington D.C., we spent a few years in D.C. where I worked as an associate at the patent law firm of Finnegan

I think if you want to become a patent attorney you should understand that it's actually a legal job -

Henderson, and then we decided to move to Germany just for a couple of years. We liked it so much that we stayed. With some experience in the US, I was hired at a law firm in Munich and worked there, met my partners and then we founded our firm in 2000. In the meantime obviously - I had to qualify to practice in Europe, so it was not the traditional way of getting to

In the way of advice, I would offer a few things: for patent law, I do think it's quite important to have a very solid technical background - and I'm saying that as somebody who has a Bachelor of Science degree and not a Master's or PhD. Not to put myself down, but I think that in the meantime, since I left education and started my career, so much has happened and I see that it's very necessary to have a very high level of education on the technical side - that is, at least, if you're going to work in the biotech or pharmaceutical space. And then on the other hand, I think if you want to become a patent attorney you should understand that it's actually a legal job - it's really not a technical job, so the skills that you need to have are those of a lawyer. You need to combine a good technical background with the skill set of a lawyer, which means excellent writing skills, excellent communication skills, and also being able to work under pressure. That has a lot to do with being a lawyer too! If you have that in you, it's a very good career path. I love this combination of elements - it doesn't get boring, I'm always learning new things, so it's a job I could recommend!

#### What challenges have you faced? And how have you overcome them?

Certainly the challenge of qualifying in US and Europe! Having a few years of litigation experience in the US under my belt working at a well-known firm, I then came to Europe with - from the point of view of other people - not so much relevant experience and I had to go through the process of getting the right qualifications and the respect and the skills here. So, that was a challenge. Of course, it was a bit of a restart. I guess it's important to be flexible in life if that's something you really want to do, and that was an important lesson.

I've also started my own firm, so this was obviously challenging as a woman. At the very time of opening our firm, I was actually pregnant with my first child. The timing was so that it was either commit and do it or probably never do it at all. So. I had to make that choice and I think it worked out well despite the challenges. Of course, it's not always easy having your own firm and there's a lot of responsibility related to that but, at the same time, I have the luxury of being my own boss so to speak. In essence, my clients are my boss (and they can be pretty demanding bosses!) but being a founding partner did give me some flexibility to work my career around my family. Balancing everything was certainly the greatest challenge, but now my kids are grown and I haven't seen any issues there so I feel it all worked out!

#### What would you consider to be your greatest achievement in your career so far?

When I founded df-mp we were three partners, we have about 100 people working at df-mp now. Our firm has gained a reputation in, I would say, a relatively short period of time from being an unknown firm, started by three relatively young people at the time, to be a firm that's well known in the German market for patent litigation and patent prosecution in all technical fields. So, I'm very happy with that achievement, with what we managed to do together.

But being able to have my children and raise my family at the same time has been incredible. that's also a huge achievement that I'm proud of. Both of my daughters are grown up at this point - as I said, the firm's 23 years old and my oldest daughter is 23 years old, my younger is 21, so they've grown together, and I've been able to manage it. It's a balance.

#### What are your future career aspirations? And how will you work to achieve them?

I hope of course that my firm continues to do well. At this point, I'm starting to consider myself as one of the senior members at the firm and, while I'm not planning to end my career, it's important for me to ensure that the firm is solid with the right young partners and attorneys so that growth can continue. I'm still leading the most important cases, but I am also beginning to transition into a mentorship role to ensure all of the members in our firm are taken care of so that the firm, in turn, is taken care of. It would be great if I could contribute to df-mp being healthy and sustainable for many years to come.

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At the very time of opening our firm, I was actually pregnant with my first child. The timing was so that it was either commit and do it or probably never do it at all.



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The UPC is a very important development and, having always been very involved in patent litigation, we're already involved in cases at the UPC. We would really like to become known for patent litigation for UPs, not just in Germany and at the European Patent Office, as a professional goal.

What changes would you like to see in the IP industry regarding equality and diversity in the next five years?

On the one hand, I would like to say that our firm has a lot of women, I think the life sciences area has a lot of women, and I've seen a lot of my female contemporaries moving through the ranks in many areas, also being very high up in companies or being partners in firms. But I do have to say that from what I can see - and this goes for diversity issues as well - I actually believe the US is a bit ahead of Germany in this regard. In Germany I still encounter the attitude of 'career and family don't mix', which I would like to see removed. I'm obviously a strong proponent of this, but there could still be better support for it - when I started out things were worse and much progress has been made. In Germany, there are more limited childcare options for small children, so reform in this area is still needed. I have seen a positive trend. I would say people of my generation and younger are quite open though, at least in Germany, to women moving up, to being generally more inclusive, and not really having a problem with diversity issues.

I also think it's people's attitudes as well, women included, in just believing that this can be done - it's a personal hurdle. It's a question for every single woman to answer for themselves individually and for their family, but it is possible. I'm far from the only person who has achieved this, I've got friends who aren't just in the legal area who have pursued management positions in their companies and they were able to do it - and at the same time, they did have two or three children

You have to have the courage to believe that it's going to work, and the desire.

who turned out lovely - but did have to put in the time and work to do it. You have to have the courage to believe that it's going to work, and the desire. You should be able to have these options and I see men of the younger generation are much more involved in taking care of the kids and taking parental leave for raising their children, which is great and was not the norm for my generation.

How do you think the empowerment of women can be continued and expanded in the IP sector?

Personally, I think it's important for women to mentor other women and I'm at that stage too where I'm thinking much more about that aspect and trying hard to make sure that talented women can move forward. So, I think it's important that women who have the experience and have overcome career hurdles can help other women do so, even if it's just answering questions and sharing experiences.





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## Jurisdictional Briefing, Spain: The European Patent Office abolishes the "10-day rule"

Miguel Fariña and Manuel de Arpe of H&A introduce the EPO's amended rules for the date of notification in response to the shift to predominantly digital filings that will affect Spanish and European applicants from now on.

https://www.epo.org/en/

https://www.epo.org/en/

journal/2023/03/a29.html

legal/official-

legal/epc/2020/r126.html

ven though the present topic may not be the most exciting for discussion, it does represent a relevant tipping point for applicants and representatives. From November 1, a new fiction that provokes a change of the date of notification of communi-cations from the EPO was imposed. Time limits can be calculated from the date of notification. Not being aware of this change could cause a loss of rights to the application due to a wrong calculation of a particular time limit.

The end of the "10-day rule" specified in previous Rule 126(2)1 EPC is in response to the shift by the EPO from issuing physical documents by postal service, to issuing digital documents electronically by email. In fact, the EPO has been issuing 99% of all documents via its EPO Mailbox service since 2011. The EPO Mailbox service allows professional representatives, legal practitioners, or applicants who have their residence or place of business in an EPC Contracting state to receive communications from the EPO online.

The **new notification fiction** simplifies things for users and brings the EPC and PCT notification procedures closer together. The "10day rule" has been abolished and will not be applied in respect of communications from the EPO dated on or after 1 November 2023.

amended Rule 126(2)

The previous Rule 126(2), in force until handover to the postal service".

the date it bears".

The date of the document is now the relevant date of notification and corresponds to the date on which the document is handed over to a postal service provider or transmitted electronically to the EPO Mailbox.

found printed on the document. This relevant date will never be, e.g., stamped on an envelope. To clarify this, the word "letter" has been replaced with the word "document" in the amended Rule 126(2).

A bit of EPC: previous Rule 126(2) versus

31 October 2023, specifyed that in the "10-day rule": "the letter is deemed to be delivered to the addressee on the 10 day following its

The amended Rule 126(2), with effect from 1 November 2023, specifies: "the document shall be deemed to be delivered to the addressee on

The amended Rule 126(2) provides a new notification procedure based on a new fiction where postal notifications (notifications handed over by a postal service provider) and electronic notifications (notifications transmitted electronically to the EPO Mailbox) will be deemed to occur on the date of the document.

Henceforth, the date of the document can be

For disputes wherein users do not receive a document, or the document is received later than the date of the document, under the new rules, the new notification procedure can be contested. Users can dispute any aspect of the delivery, including the date, and the steps taken by the EPO will depend on the outcome of the dispute. For disputes between the EPO and the applicant, the burden of proof remains with the EPO: the EPO must prove both the delivery of the document and the actual date of its delivery.

In a dispute between the EPO and the addressee, to avoid the granting of an extension of time over any time limit calculated from the date of the document, the EPO must prove that a document reached the addressee within seven days of the date of the document.

However, if it is proved that a document is received later than seven days from the date of the document, any time limit indicated in said document will be extended for the number of days the reception of the document is delayed counting from the eighth day.

Example of a calculation of an extension of the time limit:

- Date of the document: 10 April ("the date it bears", Amended Rule 126(2)).
- The document indicates a time limit of four months from the date of the document: 10 August.
- The actual date the addressee receives the document: 19 April.
- Extension of time limit: two days (counting from the eighth day).
- Extended time limit from the date of the document: 12 August.





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Henceforth, representatives must emphasize the abolition of the "10-day rule" to ensure that applicants are aware of the new fiction for calculation of time limits. It should be borne in mind that no action must be taken by the applicants, as the time limits shall be accurately

OJ EPO 2023, A29 – Notice from the European Patent Office dated 6 March 2023 concerning amended Rules 126, 127 and 131 EPC<sup>2</sup>

#### Résumés

Miguel Fariña is a European patent attorney and European patent litigator with an MSc in telecommunications engineering having work experience in private practice in top Spanish, English, and German IP firms and in-house practice at an American multinational company. His practice is mainly focused on computer implemented inventions, (electro)mechanical inventions, optical and medical devices. His main tasks involve prior art searches, drafting and prosecuting patent applications, post grant proceedings, as well as preparing patentability and infringement reports.

Manuel de Arpe started his career as an IP lawyer in his family business, a long-established boutique IP firm founded in 1915.

In 2015, after some difficult years due to the perseverance of the crisis in Spain, the firm took a further step to develop the international market.

In 2018 Manuel's firm was leading in trademark and design filings with the EUIPO among all IP firms in Europe.

The success attracted the interest of

H&A, the leading IP firm in Spain. Finally, Manuel joined H&A at the end of 2020 as a partner and part of the H&A

international department team.





## Jurisdictional Briefing, US: working examples in patent applications: how much detail to include?

## Asaf Batelman, Counsel at Cantor Colburn LLP, provides guidance for preparing working examples.

common topic of discussion between inventors and a patent practitioner drafting a patent application is how much detail to include in actual performed experimental examples, also known as working examples. While industry inventors may prefer limiting disclosure, such preference for limited disclosure may present significant risks.

Under US law, examples are not required in United States patent applications. See United States Patent and Trademark Office (USPTO) Manual of Patent Examining Procedure (MPEP) § 2164.02 ("Compliance with the enablement requirement ... does not turn on whether an example is disclosed."). However, inclusion of examples is often advisable, as examples may help satisfy statutory requirements for patent applications, such as the written description and enablement requirements of 35 U.S.C. § 112(a). On the other hand, in a 2021 Federal Register Notice, the USPTO advised to distinguish between working examples and prophetic examples that describe predicted experimental results. See USPTO Notice "Properly Presenting Prophetic and Working Examples in a Patent Application," 86 FR 35074 (July 1, 2021). Details of a working example are nevertheless helpful and can establish that a skilled artisan could reasonably conclude that the inventor(s) had possession of the claimed invention, thereby satisfying the written description requirement, as well as establish that experimentation needed to practice the claimed invention is not undue or



Asaf Batelman

unreasonable, thereby satisfying the enablement requirement.

Therefore, detailing working examples may provide concise disclosure supporting written description and enablement requirements that are difficult to refute. On the contrary, working examples that are not particularly detailed may not clearly satisfy written description and enablement requirements for the patent application.

Accordingly, from a patent application drafting point of view, a description of the ideal level of detail to be disclosed in working examples often provided to inventors is as much detail as possible and certainly enough detail such that one of ordinary skill in the art could reproduce the working examples. The ability to reproduce working examples can help establish that the inventor(s) had possession of the claimed invention and that experimentation needed to practice the claimed invention is not undue or unreasonable, noting that a patent application must provide adequate guidance to make and use the full scope of the claimed invention.

As the Supreme Court explained in Amgen Inc. v. Sanofi, 598 US 594 (2023), a specification may call for a reasonable amount of experimentation to make and use a claimed invention, though what is reasonable will depend upon the nature of the invention. The opinion of the Court held that claims covering potentially millions of antibodies – the science of which remains unpredictable – "sweep much broader" than the

26 working examples of the application and affirmed a ruling that the enablement requirement had not been satisfied.

The amount of guidance or direction needed to enable an invention is often inversely related to the amount of knowledge in the state of the art as well as the predictability in the art. If little is known about the nature of the invention and the art is unpredictable, the specification generally requires more detail as to how to make and use the invention in order to be enabling. On the other hand, the more that is known about the nature of the invention and how to make and use it, the less information needs to be explicitly stated in the specification. See MPEP § 2164.03.

Moreover, applicants often rely on working examples in a patent application to establish nonobviousness of a claimed invention. Arguments directed to nonobviousness based on working examples can be more convincing when the working examples include sufficient detail that one of ordinary skill in the art could reproduce the working examples.

In particular, arguments directed to nonobviousness based on working examples contained in a patent application can hinge on convincing an Examiner that the working examples are commensurate in scope with the claims. This can be significantly more difficult when the level of detail provided in the working examples does not allow for establishment of a clear nexus between the evidence of nonobviousness and the claimed invention. Conversely, if the working examples include sufficient details

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#### Cantor Colburn LLP

20 Church Street, 22nd Floor, Hartford, CT 06103-3207 US **Tel:** +1 860-286-2929 www.cantorcolburn. such that a skilled artisan could reproduce them, stronger arguments can often be constructed to establish a clear nexus between the evidence of nonobviousness and the claimed invention. For example, additional working example details may prevent an Examiner from arguing that non-disclosed details of the working examples preclude a proper comparison to support patentability.

However, other factors, for example, applicant commercial considerations, may influence the level of detail to be disclosed in working examples. Educating applicants about the benefits and drawbacks associated with the level of detail to be disclosed in working examples should help facilitate a mutual understanding with regard to the most appropriate level of detail to address applicant needs, which may vary between applications and applicants.

#### Résumé

Asaf Batelman's practice focuses on preparing and prosecuting patent applications. His current areas of focus include engineered materials, polymer synthesis and processing, and display technologies, and he also has experience in a wide range of technical areas, including semiconductor packaging and fabrication, petrochemicals, chemical and gas processing, and battery technologies. Asaf previously served as an in-house patent attorney at a privately held company in the greater Washington, D.C. area, where his work was focused on patent portfolio strategy and licensing relating to carbon nanotube technology, including conductive polymer-carbon nanotube composites.





# How viable is the global patent system?

Stéphane Ambrosini, Managing Director of Dennemeyer & Associates, outlines the recent turbulence threatening the patent system with six key takeaways for ensuring future stability.

n the 140 years since the signing of the Paris Convention for the Protection of Industrial Property in 1883, international tools and instruments have been developed that aim toward common standards in a process that continues to this day, as the recent launch of the Unified Patent Court (UPC) attests. Other examples include the Patent Cooperation Treaty (PCT) and the TRIPS Agreement, together with various regional registration systems, including the European Patent Convention (EPC) and African Regional Intellectual Property Organization (ARIPO).

Through these achievements and many more, the global patent system has supported innovation and driven enormous social and economic advances. And while the rigor of national procedures varies, the patent procedural ecosystem as a whole is clearly still fit for its dual purpose of safeguarding the interests of inventors and disseminating knowledge.

Yet, despite the steady movement toward greater cooperation and harmonization, our current framework faces strong and somewhat unexpected challenges from rising demand, disruptive technologies, and geopolitical pressures. Inevitably, it will need to adapt while retaining the core strengths of time-tested processes.

#### When "demand" becomes "burden"

According to the 2022 edition of World Intellectual Property Indicators<sup>1</sup> from the World Intellectual Property Organization (WIPO), there were 3.4 million patent applications worldwide in 2021, an increase of 3.6% on the previous year and higher than the pre-COVID peak of 3.3 million in 2018.

The growth in patent filings is partly a story of ascendant economies, as inventors and businesses from developing countries perceive the value of these Intellectual Property (IP) rights and increasingly accede to them. Notably, China's 1.56 million patent applications accounted for



Stéphane Ambrosini

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- us/569/12-398/case.pdf

  https://irp.nih.gov/
  catalyst/22/2/the-myriaddecision-a-move-towardtrade-secrets

nearly 50% of global filings in 2021, while the country was responsible for almost 98% of the 2.9 million utility model applications filed that same year. To put such outlier statistics into perspective, the number of patent applications received by the China National Intellectual Property Administration (CNIPA) is similar to the total of the next 12 IP offices combined.

It is not just China that is seeing significant growth. In 2021, India became the sixth-ranked IP office for patent applications, while filings increased by 63.9% in South Africa, 18.3% in Israel, and 12.9% in Mexico. This expansion of patent activity is welcome, demonstrating that the relevance of patents is understood and that they are available to inventors in developing and traditional markets. However, this internationalization of patents places new strain on existing systems.

Firstly, the unprecedented volume of applications makes searching prior art and determining novelty much harder. This difficulty is compounded by the increased diversity of languages used in specifications and the need to access records in IP offices in many jurisdictions. Another problem of particular relevance to national offices of smaller countries is that swelling application numbers occasionally cause delays in publishing patent applications, with the potential knock-on effect of wasting R&D efforts.

These hurdles impact patent applicants, IP offices, and third parties relying upon accurate published patent information, albeit unequally. As mentioned, researchers can be adversely affected by a general slowdown in the disclosure of technological progress, and all inventors experience rising costs from more voluminous search results. Inflation in services demand and currency differentials compel IP offices to increase official fees to boost their examining capacity and cover mounting overheads. As compelling and unavoidable as

causal economics may be, a commercial viability threshold must not be breached, lest deserving innovators get gradually priced out of IP rights acquisition procedures.

Long-term solutions need to be considered and implemented to maintain a fair and functional order. Somewhat ironically, some of the answers may lie in the very inventions that patent offices are examining – and perhaps refusing – as we shall see.

#### Pushing the limits of patentability

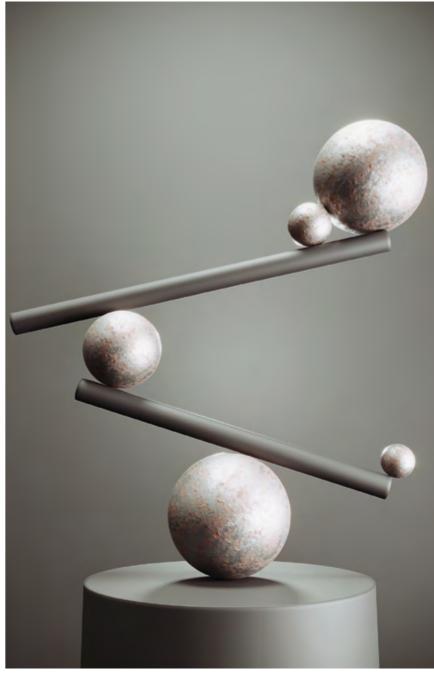
Technology's increasing complexity means that inventions often involve incremental improvements over the state of the art, making it difficult to assess whether they exhibit an inventive step or even amount to patentable subject matter.

On this second point, many breakthroughs are occurring in technology fields that lie on the very edge of patentability yet still attract substantial investments: software and genetics.

Computer software is critical to innovation in almost every industry, from power generation to healthcare and media/entertainment, not forgetting sports and many other sectors. The role of programming is likely to increase further with the use of artificial intelligence (AI) systems based on machine- and deep-learning techniques. Yet most national patent laws restrict the patenting of software to some extent. Article 522 of the EPC excludes computer programs as such from being considered "inventions." This exclusion has led to many cases before national courts and the European Patent Office (EPO) Boards of Appeal. While it has long been possible to obtain patents for computer-implemented inventions in Europe and elsewhere, a rather exacting burden of proof is imposed upon applicants to demonstrate the technical character and effect of the software invention.

Similarly, patent applicants often face objections to patentability when it comes to genetic innovations. In its 2013 ruling on the Myriad Genetics case<sup>3</sup> concerning the BRCA1 and BRCA2 genes, the United States Supreme Court held that "a naturally occurring DNA segment is a product of nature and not patent eligible merely because it has been isolated, but that [complementary DNA] is patent eligible because it is not naturally occurring." The wisdom of the decision notwithstanding, in ruling that isolated human genes cannot be patented, the Court may have inadvertently encouraged<sup>4</sup> bio-tech companies to keep research secret rather than disclose its applications.

This highlights the choice companies in these two major sectors increasingly face: whether to file patent applications or to rely upon other forms of IP protection, particularly trade secrets. While this latter option may be attractive in



#### Résumé

#### Stéphane Ambrosini, Managing Director of Dennemeyer &

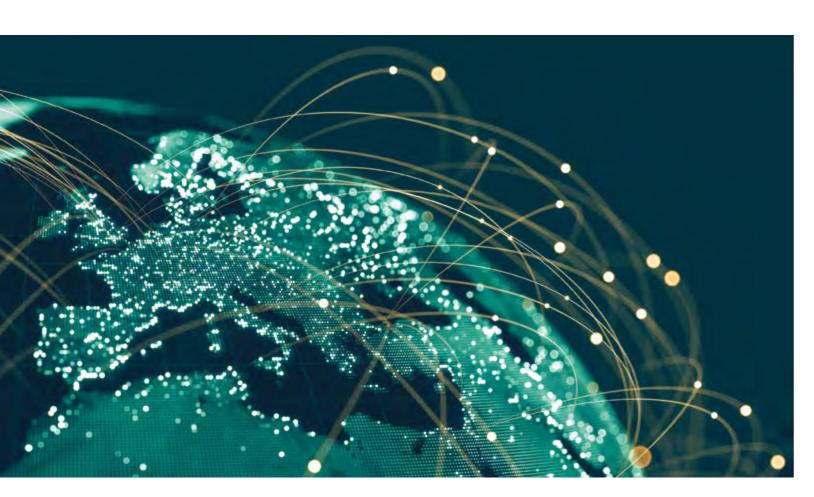
During 23 years of IP private practice in the United Kingdom, Ireland, and Luxembourg, Stéphane Ambrosini has acted for a wide variety of clients, ranging from Fortune 500 telecoms and software corporates to highgrowth digital startups.

While handling patent, trademark, and design matters, Stéphane developed a deep understanding of client-centric professional IP services and the skillsets that facilitate their delivery to clients.

After holding management roles for teams and offices in previous appointments, Stéphane joined Dennemeyer & Associates as Managing Director in July 2023 to leverage his IP expertise and business experience in leading and directing Dennemeyer's global law firm.

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some instances, it also presents significant commercial risks because it may not ensure protection in the case of independent creation of a substantially identical, competing technology.

Computer-implemented inventions have come a long way since Article 52 EPC entered into force, and eligibility criteria will surely not remain static in the face of previously unimagined technical solutions. Accordingly, patent regulations should eventually evolve, as a byproduct of a growing body of case law concerning eligibility, to accommodate technologies that have embedded themselves into modern life and work. In a similar manner to copyright law having to accommodate developments like generative AI, legislators may have to reappraise the metes and bounds of patentability.

#### Artifice of the artificial: Al dilemmas

In the meantime, the use of AI in the inventing process, either alongside human specialists or in their stead, has the potential to disrupt the patent system to some extent. The relevance and promise of AI is superlative, particularly in research that is highly labor-intensive or involves complex calculations.

This raises the question: can an AI be named as the inventor of a patent? This conundrum has been addressed directly by the DABUS patent This
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applications – and the answer from many jurisdictions has been a resounding "No." As the EPO Boards of Appeal stated<sup>5</sup>: "Under the EPC the designated inventor has to be a person with legal capacity. This is not merely an assumption on which the EPC was drafted. It is the ordinary meaning of the term inventor." In the United States, the Court of Appeals for the Federal Circuit handed down a similar denial<sup>6</sup> in August 2022: "Here, there is no ambiguity: the Patent Act requires that inventors must be natural persons; that is, human beings."

Australia initially bucked this trend<sup>7</sup>. In 2021, Justice Jonathan Beach of the Federal Court of Australia determined that the word "inventor," as applied in the country's patent legislation, refers simply to an agent that performs an action in the same way a dishwasher could be a human or a machine. But this decision was eventually overturned<sup>8</sup> in April 2022 on appeal from the Commissioner of Patents.

A consensus appears to have taken hold, but as the DABUS case was recently heard by the United Kingdom's Supreme Court, wherein a judgment is expected soon<sup>9</sup>, might the UK's highest judiciary upend it?

Inventorship is only one of the questions raised by AI. Others include: will AI tools turbocharge research, resulting in ever greater numbers of patent applications? Will the test

for obviousness/inventive step have to be changed? Does the legal construct of the "person skilled in the art" have to be a human or a team thereof only?

The answers are unlikely to be as straightforward or consistent across jurisdictions as we would like, wherefore we must be prepared to wrestle with the practical implications of AI while making the most of the opportunities it presents for enhancing productivity.

#### An uncertain world

All these patent-specific issues arise against the backdrop of a changing and uncertain world. The COVID-19 pandemic and lockdowns were highly disruptive to global trade, and many economies are still suffering its lingering effects. Interest rates have also increased substantially around the world, placing additional pressure on R&D and IP budgets.

The patent system is an excellent example of the strength of international relationships, manifesting in enhanced cooperation between the IP5 offices and such pragmatic initiatives as the growing use of the WIPO's Digital Access Service (DAS) codes among PCT contracting states. Even so, such relations can easily be damaged by political instability or conflict. In a major shakeup to the longstanding order of patent-procedural things, a number of IP offices stopped cooperating with Russia's Rospatent following the invasion of Ukraine in February

Ultimately, the cohesion or precariousness of the international patent protection framework still depends heavily on geopolitical and economic forces beyond the influence of IP professionals.

#### Responding to the challenges

There are numerous actions which stakeholders in the global patent system can take toward its stability. Such measures can be proposed in six key areas:

- Technology: Automation and AI can streamline patent processes, including classification, searching, and translation. These tools should be embraced by IP offices, service providers, and legal professionals without losing focus on the necessity of human decision-making.
- Deeper research: Conducting freedom-tooperate searches and forming patent filing strategies will only become harder in the future. Patent attorneys will need to be still more rigorous and detail-oriented when searching prior art and providing analyses.

Computerimplemented inventions have come a long way since Article 52 **EPC** entered into force, and eligibility criteria will surely not remain static in the face of previously unimagined technical solutions.

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- https://www. supremecourt.uk/cases/ uksc-2021-0201.html
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- Systems: IP offices and applicants can take further advantage of digitalized procedures to accelerate casework collaboration. This could involve solutions combining patent office-specific application programming interfaces (APIs) and other commonplace means of communicating and collaborating, such as online correspondence, file sharing, and videoconferencing.
- Finances: IP budgets need to reconcile savings opportunities with a growing requirement for IP services, prompting a greater reliance upon cost-friendly alternative dispute resolution (ADR) over traditional litigation.
- Quality control: Patents should only be granted for inventions that meet statutory criteria, as invalid patents clutter registers. Both applicants and offices need to reinforce vetting standards and systems.
- Business assets: New methods to promote technology transfer and ensure proper compensation should be explored.
   A recent example of a new collaboration model is the WIPO GREEN<sup>10</sup> online platform.

#### Stability and change

The global patent system is based on solid principles and provides a steady foundation for future economic growth and sustainable development. This makes its endurance all the more important.

As IP practitioners, our resolve should extend to ensure that this edifice of legal ingenuity remains standing to support inventors and promote societal progress over the coming decades. With proper shepherding by IP attorneys, both as individual actors and collegially as a profession, fast-advancing technologies can usher in a new age of innovation within the global patent system itself to enhance its resiliency still further.

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# The scope of the original claim is not the limit for divisional patent applications

Ranjan Narula and Suvarna Pandey of RNA, Technology and IP Attorneys review recent cases to evaluate practical issues with divisional patent applications in order to provide best practice guidance.

n applicant can file a divisional patent application on their own or to meet the official objection raised by the Controller of Patents on the ground that claims of the invention relate to more than one invention, also referred to as a plurality of an invention. Section 16 of the Indian Patents Act provides for divisional and clearly mentions that the priority date for all the divisional applications will be the same as that of the main (or the Parent) Application. A divisional application is an application with different claims to that of the parent application, however, with substantially the same specifications and drawings.

#### **Practical Issues**

In practice, the applicant would divide an application only when the Patent Office raises an objection on the ground that the invention lacks unity. In other words, inventions claimed in



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Suvarna Pandey

a single patent application do not form a single inventive concept. Despite Section 16 providing that the applicant can file a divisional application "if they so desire", in practice, it is challenging to do so. Further, such applications usually face a stronger examination in terms of being scrutinized for the actual reason of dividing the patent application by the applicant's own volition. The Controller, in that case, evaluates all the reasons to rule out any intention of the applicant to obtain multiple protection on the same invention. In that the Controller would assess whether a) the claims in the divisional are a part of the claims of the parent application to assess the requirement of the plurality of inventions, b) the applicant has added any new claims or new features in the existing claims of the divisional application, c) the applicant has filed the divisional

application on the same subject matter of the claims of the parent application because the claims in the parent were objected by the Controller on the basis of a single inventive concept.

However.

Yet another important question that comes up is whether it is necessary for the claims of the divisional application to be divided from the claims of the parent application or if new claims are added that have support from the complete specification. The most accepted interpretation on this aspect so far was that the claims could be divided only from the claims of the parent application. This is also in line with the practice elaborated in the manual of patent office practice and procedure, Version 3.0 (dated 26 November 2019), which states that "Claims of divisional application(s) shall be based on the claims of first mentioned (or earlier application for that matter) from which instant application is divided out and no addition of claims, which do not fall within the scope of said claims, is allowable."

The abovementioned two aspects were dealt with in detail by the Division Bench of Delhi High Court (two judge bench) in the matter of *Syngenta Limited v. Controller Of Patents And Designs*, (judgment dated 13 October 2023). The matter came to the Division Bench through a reference made by the Single Judge of Court as it raised doubt on the correctness of the views expressed in Boehringer Ingelheim International *GMBH v. the Controller of Patents*, for the divisional patent application.

## Boehringer Ingelheim decision In Boehringer Ingelheim International GMBH v. the Controller of Patents, it was held that

- a) For claims falling out of the scope of originally filed claims but within the scope of the complete specification of the parent, applications are not allowed. The Court in Boehringer Ingelheim took the position that if the plurality of inventions is not contained in the claims of the parent application, the divisional application would not be maintainable.
- b) That a divisional application would neither be maintainable, nor could one be permitted to be filed, solely based on disclosures made in the specification.

  The learned Judge further observed that permitting the filing of such divisional applications, even though the plurality of inventions is not mirrored or found in the claims, would run contrary to the fundamental rule of patent law, namely, "what is not claimed is disclaimed."

#### **Division Bench ruling**

Considering Boehringer Ingelheim's decision,

the following questions were addressed to the Division Bench dealing in the Syngenta matter for consideration:

- "(1) Does the requirement of a plurality of inventions being contained in the parent application, in order for a divisional application to be maintainable, apply even where the applicant *suo moto* files the divisional application, and not based on any objection raised by the Controller?
- (2) Assuming that the requirement of a plurality of inventions in the parent application is necessary for a divisional application to be maintainable, does the plurality of inventions have to be reflected in the claims in the parent application, or is it sufficient if the plurality of inventions is reflected in the disclosures in the complete specifications accompanying the claims in the parent application?"

The Bench addressed this question as "The principal contestation centers upon the question

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#### Ranjan Narula, Managing Partner

#### **Board Member, International Trademark Association (INTA)**

Ranjan founded the specialist IP law firm, RNA, in 2004, and is now its Managing Partner. He has 27 years' post qualification experience working on contentious and non-contentious IP and Technology issues. Ranjan has been practicing as an advocate and patent attorney since 1991 handling a wide range of IP, IT, and technology matters including IP management issues, strategic advice on IP clearance, acquisition, and enforcement. Ranjan has worked in-house and in private practice including a stint with international IP practice heading its India operations. In 2019, Ranjan was invited to join the INTA, Board of Directors.

Ranjan has been ranked as a leading IP practitioner by various publications including WTR 1000, IP Star (Managing IP), WIPR leaders, Who's Who legal, Asia IP experts, and others. Ranjan is regularly invited to speak by Universities and chamber of commerce on IP issues. He has authored several articles and papers on key IP issues that are published by IP magazines and blogs such as IAM, World Trade Mark Review, Bloomberg, Lexology, IP Kat etc.

#### Suvarna Pandey, Associate Partner

Suvarna is a registered patent agent and a law graduate. Having been in the practice for around 13 years, her specialties include patent searches, patent drafting, and providing patentability and infringement opinions. She is also involved in patent prosecution proceedings at the patent office, opposition and other invalidity proceedings. She is specialized in the development and strategic management of patent portfolios in areas that include biotechnology, chemical, and pharmaceutical inventions. She has been advising clients on global patent strategy including PCT applications and national phases in designated countries.

Suvarna has also authored various articles and delivered training sessions in the domain of Indian Patent practice.

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whether the plurality of invention is liable to be found in the parent claims or would it also extend to being discerned from the provisional or complete specification that may have accompanied the application for grant of a patent. The aforesaid issue forms the core of the question."

#### Facts of the matter (Syngenta Limited v. Controller of Patents and Designs):

On 28 December 2005, Syngenta Limited applied to the Controller in respect of its invention pertaining to an agrochemical concentrate comprising an adjuvant and a hydrotrope containing 14 claims.

#### Claim 1 of the parent application – IN252191 (6114/DELNP/2005)

"An agrochemical concentrate having continuous water containing single-phase characterized in that said continuous phase also comprises an oil-based adjuvant and a hydrotrope capable of solubilizing said adjuvant in said continuous phase."

#### Claim 1 of the divisional application

"An agrochemical concentrate having a continuous water-containing phase said continuous phase comprising an oil-based adjuvant and a hydrotrope capable of solubilizing said adjuvant in said continuous phase; where the adjuvant is selected from long chain ethoxylate versions of synthetic or fatty acids, alcohols and amines; and the hydrotrope is a phenol type hydrotrope; and the ratio of the adjuvant to the hydrotrope is from 1:10 to 10:1."

The controller refused the patent application on the basis that for a divisional application to be maintainable, the disclosure of more than one invention must necessarily be embodied in the parent application. The Controller took the view that since the parent application did not contain any claims relating to the plurality of a distinct invention, the divisional application was liable to be refused. The Controller additionally took into consideration the fact that the appellant had, while responding to the FER, raised no objection relating to the plurality of inventions.

## Analysis of the Division Bench in overruling the views expressed in *Boehringer Ingelheim International GMBH v. the Controller of Patents*:

The Division Bench interpreted the precept of "what is not claimed is disclaimed" as having no application to the drafting of claims. This doctrine may be relevant for infringement analysis; however, it has no application to the

- subject of divisional filing and claim drafting. There thus does not appear to be any justification to impute the principle of "what is not claimed is disclaimed" for the purposes of discerning the scope of Section 16. This is more so when the language of Section 16, in clear terms, requires the plurality of inventions to be gathered from disclosures made either in the provisional or the complete specification. It was also interpreted that Section 16 speaks both of a provisional and a complete specification. However, in the case of a provisional filing, claims need not be specified at all. If the view as expressed in Boehringer Ingelheim were to be accepted, no divisional application would be maintainable in a case where a provisional specification has been presented. This is because the decision binds us to discover the invention solely
- The Bench also held that the filing of a divisional application either suo moto by the applicant or while meeting an objection raised by the Controller would have to be answered on identical lines. On due consideration of Section 16, there was no indication of the distinction or dichotomy with respect to the filing of divisional applications based on whether the same is filed suo moto or is activated by an objection that may be raised by the Controller. Section 16(1) does not appear to warrant any such distinction being carved out. Thus, the divisional application could well be maintained in either of those situations (by the applicant suo moto or to remedy an objection raised by the Controller), subject to the plurality of inventions being evidenced from the disclosures made in either the provisional or the complete specification.
- The Court observed, "It would have been open for the Legislature to restrict the amplitude of Section 16 by stipulating that plural inventions must be embodied or be identifiable from the claims as originally filed; it has in unequivocal terms provisioned for the same being discernible from the provisional or complete specification. The provision (of Section 16) as structured, neither leaves any space for ambiguity nor does the language of the text warrant any doubt being harbored

in respect of the clear intent of the provision. We thus find ourselves unable to concur with the interpretation placed upon that provision in Boehringer Ingelheim.

#### Position in the USA and Europe:

The concept of divisional application exists in Europe as well as US (by the name of In US continuing application). The presence of multiple invention/s is the legal basis for dividing a patent application in US, according to 35 U.S.C. 121 as well as in E.P. according to Art. 82, Rule 36 of The European Patent Convention.

- In US, claims of a continuation application may be based on the subject matter that is present as a part of the specification.
- Similarly, in E.P., the claims of a divisional application need not be limited to subject matter already claimed in claims of the parent application. However, the subject matter may not extend beyond the content of the parent application as filed.

The claims of the divisional patent application are not necessarily split/divided from the claims of the parent application.

or under requirement by the Patent Office. The claims of the divisional patent application are not necessarily split/divided from the claims of the parent application. Rather, the claims of the divisional patent application can be drafted based on the features from the complete specification. The order of the Division Bench brings the practice of the Indian Patent Office in line with the EP and US Patent Offices and provides much-needed clarity on this important aspect for the grant of a patent.

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To sum up, the divisional patent application in India can be filed by the applicant by their choice



## Inventions directed to second use in Brazil

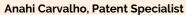
Igor Simoes and Anahi Carvalho of Simoes IP Law Firm evaluate Brazil's interpretation of TRIPS to provide an overview of second use patent protection in the pharmaceutical industry and beyond.

#### Résumés

#### Igor Simoes, Managing Partner

With over 25 years of experience, Igor is the managing partner of Simoes Intellectual Property, having graduated in Chemical Engineering from Fluminense Federal University (UFF) and in Law from Candido Mendes University. He is also an Industrial Property Agent, registered before the Brazilian Patent and Trademark Office (BRPTO) since 2001.

Igor has knowledge in all areas of Intellectual Property, demonstrating extensive experience in litigation before Brazilian State and Federal Courts, as well as in all administrative petitions before the BRPTO. His practice also involves prior art searches, technical and legal consultancy in IP, focusing on patents, industrial designs, trademarks, copyrights, and software.



Anahi holds a bachelor's degree in Industrial Chemistry from Fluminense Federal University (UFF), and has completed courses focused on Intellectual Property, Leadership, and People Management, in addition to an academic exchange in Chemistry at the University of Wisconsin-River Falls.

Anahi joined Simoes Intellectual Property's team in 2018. Her development led her to occupy the position of Intellectual Property Agent in the firm and, currently, to act as a Patent Specialist. She works in the technical department with a focus on patent prosecution, industrial designs, and software.



**Igor Simoes** 



econd use pharmaceutical patents are a topic that has been widely debated in Brazil, particularly in view of the recent public consultation published by the Brazilian Health Regulatory Agency (ANVISA), which deals with skinny labels. In this context, second use patents refer to inventions that seek protection for a second or subsequent medical use of a known

The concept works on the principle of novelty and inventiveness, where the second use for the substance is not known or obvious from its prior known uses. The patent practice for second use can differ significantly from one jurisdiction to another, due to the different definitions of novelty, inventiveness, and industrial applicability. Further, second use patents also attract controversy, notably in concerns related to "evergreening" a strategy where minor changes to a product, such as discovering new uses, are patented to extend the patent life, potentially reducing competition and hindering access to affordable drugs. Additionally, it should be noted that second use patents extend beyond just the field of pharmaceuticals; their application has shown promising results in various sectors including agriculture, technology, chemistry, and green technology. This demonstrates their immense potential to drive innovation across diverse industries.

#### **Brazil's interpretation of TRIPS**

Starting the debate on the matter, it is interesting to bring up the agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPS). TRIPS is an international legal agreement between all the member nations of the World Trade Organization (WTO), which sets down minimum standards for the regulation of different forms of intellectual property, including patents, within its member nations. According to TRIPS, the member nations are free to establish the patentability

criteria on uses of already known products. original use of that substance.

#### **Overview of second use Patents** in Brazil

The history of second use patents in Brazil is characterized by a mix of supporting innovation and upholding public health interests. In the past, the Brazilian patent system did not allow for the patenting of pharmaceutical products and processes, a policy that changed with the IPL. This opened the door for second medical use patents, allowing pharmaceutical companies to protect incremental innovations while being able to recoup any investment spent on research and development of these subsequent medical applications. In general, an incremental or sequential innovation can be defined as existing products and processes, whose performance has been significantly improved. In the pharmaceutical field, subsequent medical uses of a known substance could be interpreted as such an innovation.

Currently, the Brazilian Patent and Trademark Office (BRPTO) favors the patenting of second uses once they comply with the patentability requirements set forth in Article 8 of domestic legislation and do not fall into any legal

The current status of second use patents in Brazil is controversial since conflicts can arise due to the differing focuses of the BRPTO and ANVISA. The recent public consultation aimed at the implementation of skinny labels could even be a solution regarding the availability of generic medicines on the market since the proposal of the "call for comments" is that labels for generic drugs may differ from their respective standard labels with respect to patent-protected indications. In other words, a second medical use, object of patent protection, would be excluded from therapeutic indications specified on the labels of similar and generic drugs. However, it is necessary to be careful if this goes further, because even if the skinny label practice becomes valid, the court may analyze the company's behavior from the perspective of inducing the

consumption of its product for the protected indication not present on the label.

One key example illustrating second medical use patents in Brazil is the drug Sildenafil (Viagra®). Originally developed for use in treating heart conditions such as angina, its subsequent use to treat erectile dysfunction could be considered a classic case of a second medical use patent. Another compelling case is that of the anti-cancer drug, Azidothymidine (AZT). Originally developed to thwart cancer, a new use was found to treat HIV infections. Both of them are already in the public domain but can demonstrate the challenges faced by the pharmaceutical industry in Brazil. Despite the existing hurdles, second use patents remain an important component of the country's pharmaceutical patent landscape.

A brief survey of second instance decisions published in the Official Bulletin (RPI) in the period between 2020-2022, by the BRPTO, for second medical use is shown in the table overleaf.

Most applications for second medical use were rejected. In addition, emphasis can be placed on the legal basis that motivated such rejection decisions, which resides, mostly, in a non-compliance

Under Article 27.1 of TRIPS, patents should be available for all inventions, whether processes or products, in all technology fields. However, the same article also allows countries to exclude the patentability of certain inventions to protect public health and prevent the misuse of exclusive rights which result in limiting access to pharmaceuticals. In fact, Brazil's current interpretation of TRIPS is consistent with their domestic legislation, the Industrial Property Law (IPL) No. 9.279/96. The new use must not be inherent to the known use and needs to demonstrate a surprising effect that was non-obvious from the







Publication date (RPI)	Applicant/ Owner	Application/ Patent	Legal basis for rejection (second instance)	Final decision
19/05/2020 (2576)	NOVARTIS AG	(Pl0114870)	Art. 8 combined with Art. 13 of the IPL.	Appeal acknowledged and granted [Notice 100]
14/07/2020 (2584)	LEADIANT BIOSCIENCES SA	(Pl0117124)	Art. 8 combined with Art. 11, and Art. 24 and 25 of the IPL.	Appeal acknowledged and granted [Notice 100]
01/09/2020 (2591)	JANSSEN PHARMACEUTICA N.V.	(Pl0407329)	Art. 24 of the IPL.	Appeal acknowledged and rejected [Notice 111]
20/10/2020 (2598)	OTSUKA PHARMACEUTICAL CO. LTD	(Pl0405657)	Art. 8 combined with Art. 11 of the IPL.	Appeal acknowledged and rejected [Notice 111]
27/07/2021 (2638)	BIOGEN MA INC.	(BR 112017004056)	Art. 8, Art. 11, Art. 13, and 25 of the IPL.	Appeal acknowledged and rejected [Notice 111]
26/01/2021 (2612)	HELIX BIOPHARMA CORP.	(Plo312664)	Art. 8 combined with Art. 13 of the IPL.	Appeal acknowledged and rejected [Notice 111]
20/04/2021 (2624)	BAVARIAN NORDIC A/S	(Plo309339)	Art. 8 combined with Art. 11 of the IPL.	Appeal acknowledged and rejected [Notice 111]
06/07/2021 (2635)	CHIESI FARMACEUTICI S.P.A	(Plo8og8oo)	Art. 8 combined with Art. 11 of the IPL.	Appeal acknowledged and rejected [Notice 111]
17/08/2021 (2641)	N.V. NUTRICIA	(Plo617507)	Art. 8 combined with Art. 11 of the IPL.	Appeal acknowledged and rejected [Notice 111]
25/10/2022 (2703)	AMGEN RESEARCH (MUNICH) GMBH	(Pl0415457)	Art. 25 of the IPL.	Appeal acknowledged and rejected [Notice 111]
13/09/2022 (2697)	N.V. NUTRICIA	(Plo513551)	Art. 8 combined with Art. 11 of the IPL.	Appeal acknowledged and rejected [Notice 111]

with the patentability requirements (Art. 8 combined with Art. 11 and 13 of the IPL - novelty and inventive step, respectively). It can be also highlighted that most of the second medical uses show an International Patent Classification (IPC) in primary class A61K.

As a general understanding, inventions directed to medical use can be of two types: (i) a first medical use of a known drug; (ii) a further medical use of a known drug (second medical use).

Claims drafted in the format: a) product X characterized by being used as a drug; b) product X characterized by being for the treatment of disease Y; c) use of product X characterized by being for treating disease Y; d) process for treating disease Y characterized by administering product X (or a composition containing product X); are not acceptable by the PTO as the acceptable format in Brazil is the Swiss-type (Use of drug X characterized by being for preparing a medicine to treat disease Y).

Claims drafted as: a) pharmaceutical composition characterized by containing product X (with other components); b) composition for treating disease Y characterized by containing product X (with other components); c) composition characterized by containing product X (with other components) for use in the treatment of disease Y; d) composition in the form of (lozenge, gel, injectable solution, etc.) characterized by containing product X (with other components) for use in the

As a general understanding, inventions directed to medical use can be of two types: (i) a first medical use of a known drug; (ii) a further medical use of a known drug (second

medical use).

treatment of disease Y; may be acceptable, as long as said compositions are new and present an inventive step.

Claims drafted as: a) use of drug X characterized by being for preparing a drug to treat disease Y, said treatment consisting of ...; are not acceptable and the Examiner will likely require the deletion of the text describing the treatment.

#### Second use patents in other industries

Second use patents are not exclusive to the pharmaceutical sector; they are also present in other sectors. For example, in agriculture, one classic case involves the compound glyphosate, which was initially patented as a descaling agent to clean pipes and boilers. It was later patented as an effective herbicide, becoming a significant product in global agriculture. Another example in the technology sector is LCD technology, which was first patented on a liquid crystal light valve. Later, it was discovered that LCDs could also be used for displays in electronic devices, leading to a secondary patent for this new use. In the chemistry field, polymers such as polyethylene terephthalate (PET) were first discovered and used in the textile industry. Later, second use was obtained for packaging.

Moreover, second use patents can play a substantial role in the domain of green or ecofriendly technology, often leading to innovative



applications of existing products or methods that can benefit the environment. In the field of renewable energy, materials like silicon, initially patented for use in computer chips, were later found effective for creating solar panels. This second use could stimulate advancements in solar energy, helping to reduce reliance on fossil fuels. These examples underline the extensive relevance of second use patents across divergent industries, playing an instrumental role in driving innovation and the transition to a more sustainable economy. It establishes an interconnection between intellectual property rights and environmental policy, where the reuse and repurposing of existing inventions can lead to environmental gains.

#### Conclusion

In view of the above, it can be noted that second use patents play a significant part in promoting innovation and extending a product's lifecycle on the market, benefiting various industries like pharmaceuticals, agriculture, technology, chemistry, and green technology.

It is possible to conclude that Brazil, in view of its current legislation and the strict guidelines established by the BRPTO, grants second use patents with high technical value, therefore, The better the claims are drafted, the better the patent protection.

providing high legal certainty. Unfortunately, as it happens all over the world, the problem is to enforce patents directed to the second use of inventions. The better the claims are drafted, the better the patent protection.

For generic pharmaceutical companies, with regard to skinny labeling, it is crucial to highlight that such a practice, if comes into force, does not completely free them from patent infringement.

#### Contact

#### Simoes IP

#### Rio De Janeiro Office HQ

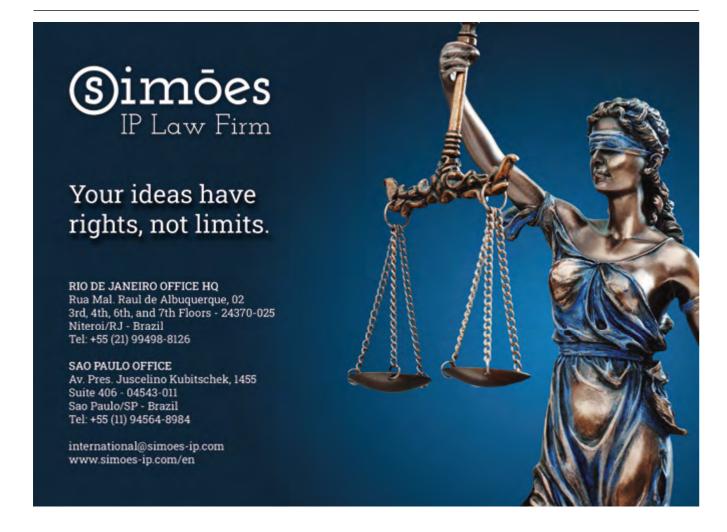
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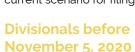


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## An unfortunate situation for divisional applications in Mexico

Mauricio Samano, Associate at OLIVARES, provides a breakdown of the changes to divisional applications introduced in November 2020 with a review of the impact this has had on patent applications.

ivisional applications are excellent for protecting additional embodiments of an invention. In many technology fields, and especially in the pharmaceutical industry, divisionals are a frequently used tool to create robust protection for a certain patent portfolio. Of course, Mexico is not an exception and for many years patent owners have filed many divisional applications either voluntarily or as a result of a lack of unity objection. This scenario has changed as a result of our new law that entered into force on November 5, 2020, which contains several limitations for filing divisional applications. Moreover, in the last few months, several erroneous interpretations from the Mexican Patent Office (IMPI) have further complicated the current scenario for filing divisionals in Mexico.



Before the Federal Law for the Protection of Industrial Property (FLPIP) entered into force on November 5, 2020, the applicable law was the former Intellectual Property Law (IPL) which had been in force since 1991. This previous law only specifically contemplated the scenario of filing a divisional application as a result of a lack of unity objection but, in practice, examiners also accepted voluntary divisionals as long as they were filed at any time during the prosecution of the parent case and before the payment of the grant fees. There was no limit to the number of voluntary divisionals that could be filed and no limitation for filing cascade divisional applications, it was frequent to see fourth and even sometimes fifth generation divisionals.

IMPI's practice for voluntary divisional applications was supported in Article 4G(2) of the Paris Convention which says that



initiative, divide a patent application and preserve as the date of each divisional application the date of the initial application and the benefit of the right of priority, if any. Each country of the Union shall have the right to determine the conditions under which such division shall be authorized".

"The applicant may also, on his own

This practice went on for over three decades and was seen as positive by most patent owners.

#### **Divisionals from** November 5, 2020, and onwards

As previously mentioned, on November 5, 2020, our Federal Law for the Protection of Industrial Property (FLPIP) entered into force and this new law specifically contemplated the possibility of filing voluntary divisional applications. However, this new law also contemplated several limitations for filing divisionals which were absent in the former law which are mentioned below.

#### a) Cascade divisionals

As mentioned in Article 100 of our new IP Law, a voluntary divisional application will only be possible if it derives from its parent case. In other words, voluntary divisionals deriving from divisionals will no longer be allowed. The only possible scenario for filing cascade divisionals is if the Mexican PTO requests further division through a lack of unity objection.

It is also possible to file multiple divisional applications all deriving from the same parent

A possible solution to this new situation is to file in the first divisional a set of claims that do

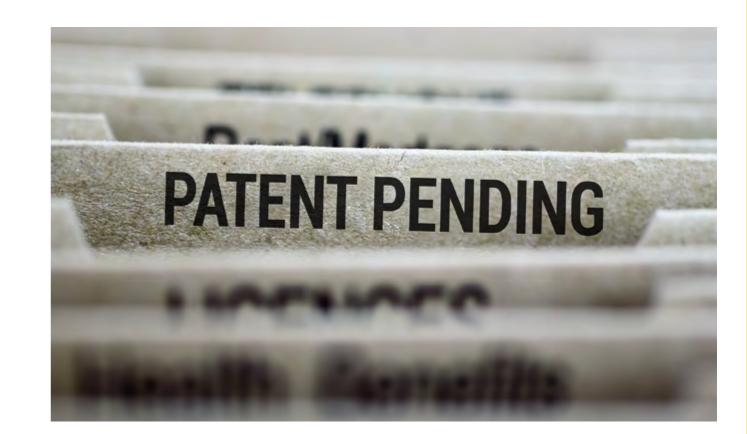
Mexico and, in practice, examiners tended to raise double patenting objections when there is scope overlap between the claims of a divisional and that of its parent case. However, double patenting was not defined in our previous law, so it was feasible to argue that the only scenario in which double patenting existed was if the scope of the claims of the divisional was identical

Article 101 of our new law mentions that a patent will not be granted to a matter that is

started denying all voluntary cascade divisional applications regardless of whether the parent case was filed before or after November

5, 2020.

already protected in another patent or if the essential technical characteristics sought to be protected are a non-substantial variation of the matter protected in said other patent. This definitely poses a grey area on how double patenting will be assessed by the examiners and how they will interpret a "non-substantial variation". The assessment of the examiners will depend on the pertinent case law that will develop once these cases reach the Mexican courts.



not comply with unity of invention in order to ensure that the examiner issues a lack of unity objection, thus allowing the applicant to file further divisional applications in the future.

#### b) Limitations on claimed subject matter

One major change in divisional practice is that now, when unity of invention is objected to, any invention or group of inventions that are not included in the initial application, or in the application that originated, the division cannot be included again in any of said applications. Therefore, when receiving a unity objection, the applicant needs to consider this when deciding the scope of protection that is of commercial interest to them. If this is not yet clear, it is important to not let go of any matter when dividing the application.

#### c) Double patenting

Double patenting has long been an issue in to the scope of the claims of the parent case.

#### Résumé

Mauricio Samano works in the patent department at OLIVARES where his work mainly focuses on prosecuting chemical, biotechnological, and pharmaceutical patent applications, as well as providing technical opinions regarding patent infringement. He has experience in conducting state-ofthe-art searches and drafting patent, utility model, and industrial design applications. Additionally, he is a member of the International Patent Law and Trade Committee, as well as of the Latin American Practice Committee of Intellectual Property Owners (IPO)

**Voluntary** divisionals deriving divisionals longer be allowed.

#### **Erroneous interpretations** from the Mexican PTO

In view of the new Federal Law for the Protection of Industrial Property (FLPIP), IMPI started denying all voluntary cascade divisional applications regardless of whether the parent case was filed before or after November 5, 2020. IMPI applied this criterion even though the FLPIP contains transitional articles that specifically state that patent applications filed under the former law should be prosecuted still under the former law.

As previously mentioned, the FLPIP in its article 100 prohibits the filing of voluntary cascade divisionals. However, as also previously mentioned, this limitation was not present in our previous law, and voluntary cascade divisionals were accepted in the previous law without any

After several months of lobbying efforts, this criterion was modified and in the first months of 2022, IMPI started accepting voluntary cascade divisionals which derived from a parent case filed before November 5, 2020.

Unfortunately, IMPI's rectification did not last long and in May of 2023, IMPI again changed its criteria and started rejecting voluntary cascade divisionals if the first parent case had been allowed and issued as a patent or if it was abandoned.

At this moment the scenario is even worse because now IMPI has also started issuing substantive office actions rejecting cascade divisionals that were previously accepted, and which had complied with all formal requirements. In a nutshell, they are overturning their decision to accept voluntary cascade divisionals deriving from a parent case filed before our new law entered into force on November 5, 2020, even though said cascade divisionals were filed long before this abrupt change of criteria.

Even more worrisome, we have seen cases in which the examiner issues one or two office actions objecting to substantive issues such as lack of inventive step, lack of clarity, etc., and in the last office action they abruptly reject the application for being a divisional that was filed after the first parent case had been allowed.

IMPI is basing its criterion on a Federal Court Jurisprudence that provides that it is not possible to file divisional applications once the prosecution of the parent case has been finalized. However, this court decision does not mention the specific case of cascade divisionals and thus, IMPI is misusing this Jurisprudence and applying it wrongfully to all voluntary cascade divisional applications, regardless of the applicable law.

This is a particularly worrying situation because not only does IMPI's legal criterion lack any legal support, but they are applying it to cases that have already been accepted and are thus applying contradictory criteria in a single

application when in fact administrative authorities are not allowed to revert their own decisions during the prosecution of the same case.

The current situation does not provide any certainty to applicants that have pending voluntary cascade divisionals that derive from a parent case filed before November 5, 2020, and although it is a fact that IMPI's criterion is wrong, in case the applicant wishes to continue prosecution, the current option is to wait for a definite rejection from IMPI and then litigate the case before the Mexican courts. This will not be an easy task as Mexican courts are not familiar with this issue, but we believe that we have a good chance of overcoming these rejections in the courts, particularly in the cases in which contradictory criteria were applied in the same patent application.

#### Conclusions

IMPI's current criteria regarding voluntary cascade divisionals deriving from parent cases filed before November 5, 2020, is disappointing, to say the least, and lacks any legal basis. This criterion responds to a current left-wing trend in the Mexican government in which cascade Divisionals are seen as abusing the patent system and not as a vehicle for enhancing patent protection for patent owners.

It's sad to see that IMPI is adopting such an anti-patent view, but we are optimistic that once the first cases reach the Mexican courts, positive outcomes will help overturn this unfortunate and illegal criterion. However, at this moment, applicants who seek to ascertain additional protection through a cascade divisional deriving from a parent case filed before November 5, 2020, should consider that the path to obtaining such protection is now longer and more complex.

#### Not only does IMPI's legal criterion lack any legal support, but they are applying it to cases that have already been accepted and are thus applying contradictory criteria in a single

application.

#### Contact

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## Maiwald makes the case for patent lawyers to learn something new: LiquidText

Influenced by several years of use, Dr Eva Ehlich, Partner, Shareholder, and Managing Director at Maiwald, expresses why LiquidText is the 'it' software for patent attorneys owing to its advanced capabilities for thought tracking and instant recall across entire project areas.

aiwald is one of Germany's largest and most renowned intellectual property firms. With approximately 250 employees at offices in Munich and Dusseldorf, the firm's 100 patent attorneys and attorneys-at-law work with an in-house research department and numerous client-related teams to service and protect intellectual property rights worldwide. Maiwald's attorneys and staff comprise interdisciplinary teams with legal and business expertise and a wide range of technical and scientific know-how. But like many patent law firms, Maiwald is challenged to organize and manage the volume of information required to represent inventive clients.

#### The challenges of practicing patent law

Patent lawyers must command and control many documents in cases that often drag on for years, requiring lawyers to manage and organize hundreds to thousands of documents. Yet, "the information must be at your fingertips," said Dr Eva Ehlich, Partner, Shareholder, and Managing Director at Maiwald.

Patent lawyers must contend with a long lapse between acquiring client knowledge and applying it in court and before the patent offices. They must return to open projects with aplomb and come up to speed quickly and efficiently without losing a thought or a document. "Patent information is too voluminous and technical to keep it all in your head," said Dr Ehlich.



Over time. one's focus may shift, but you still need the information you collected when the project started.

#### Résumé

A practitioner responds

Dr Ehlich is a German and European patent

attorney. She practices before the German and

European Patent Office (EPO) and develops and

manages international patent strategies for other

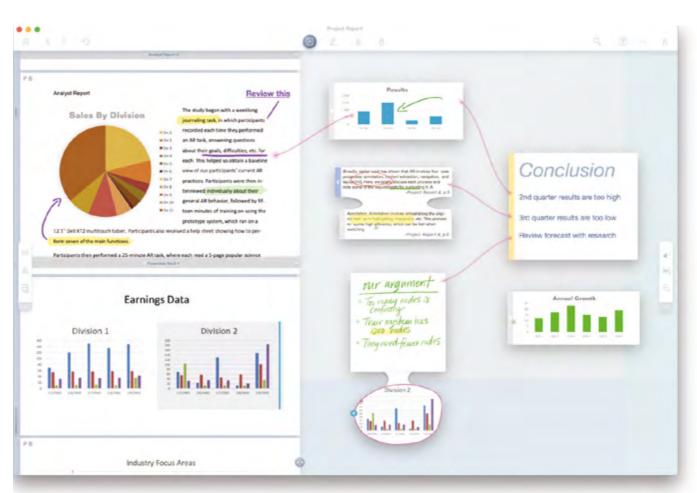
country systems. Dr Ehlich prepares freedom-

to-operate and validity opinions, accompanies

drafting patent applications and implementation

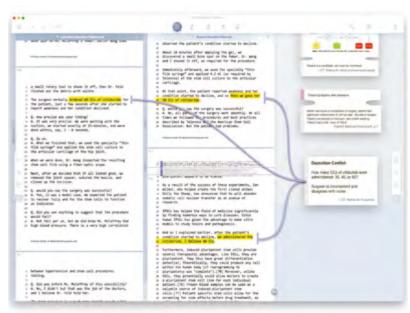
#### Dr Eva Ehlich, Partner, Shareholder, and Managing Director at Maiwald

Eva represents European, US and Japanese companies in the chemical, biochemical and pharmaceutical sectors whom she advises and assists in drafting prosecuting, defending, enforcing and challenging IP rights in Germany, Europe and worldwide. Along with preparing freedom-to-operate and validity analyses she has experience in patent litigation and strategic patent filing, especially in the area of drug delivery, pharmaceutics and medical uses (small molecules and biologics) as well as in coordinating international patent portfolios and freedom-to-operate strategies. Eva has received numerous recognitions for her professional activities as a patent attorney.



Overview: A screenshot of LiquidText with the document pane and a workspace open, showing notes and connections.

of application procedures, and conducts validity and patent litigation proceedings. With her doctorate in chemistry from the Technical University of Munich and many years of experience, Dr Ehlich focuses on drug delivery, pharmaceutical technology, and medical applications (small molecules and biologics) in developing and coordinating international patent portfolios.



InkLinks, shown here, connect text in one document to text in another relevant document.

With her highly specialized work, Dr Ehlich needed a tool to analyze and manage a very large number of documents in multiple projects that ran for decades. The tool must let her return to any project where she left off. Furthermore, she wanted to know immediately what happened from the beginning of the project to date. "Over time, one's focus may shift, but you still need the information you collected when the project started," said Dr Ehlich. She feared losing sight of a document or a thought if she couldn't command and control project information.

#### LiquidText comes to Maiwald

In 2019, Dr Ehlich had thoughts of going paperless. Her office was full of boxes and folders but looking for a specific document could become cumbersome and time consuming. Accessibility was first and foremost in her mind. She looked for software to overcome the disadvantages of storing and retrieving paper and work better than paper. Although paper allows a reader to embellish and markup the document, it provides little opportunity to alter or restructure the presentation to include in a legal argument or strategy and retrieve it on demand.

Dr Ehlich considers herself open to new ideas. She tried different tools, but they couldn't connect her thoughts with source documents

and pinpoint citations. "After all, lawyers don't invent anything; we use things that are there," said Dr Ehlich. Connecting her thoughts, ideas, and arguments to "there" was crucial: "There is always the great fear of losing direct touch with all the details and interrelations between the original fact and evidence of an argument or a certain strategy."

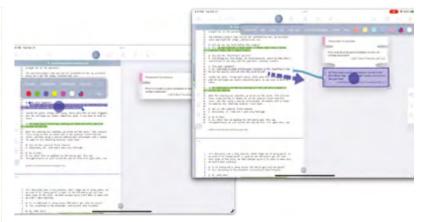
Then someone suggested she try LiquidText<sup>1</sup>, the software the European Patent Office makes available to all their patent examiners. LiquidText gathers documents into projects where you can capture notes, highlights, annotations, and observations into workspaces and link the information together and back to the source documents. For Dr Ehlich, the ah-ha moment when she knew LiquidText was for her came from a project that included a crucial graph. She lassoed and dragged the chart to a workspace to comment on it and fit it into her case strategy. She felt she would not lose it and the link to the original document. It became a marriage of convenience and necessity.

#### The 'it' software: LiquidText

LiquidText solved Dr Ehlich's accessibility problems. She would never lose a document or idea again. She has imported thousands of documents into patent projects, where LiquidText stores them for the project's life, which often exceeds 10 years for patent lawyers. Before LiquidText, documents were in different places and sometimes very cumbersome to be found after years had gone by.

Like many patent attorneys, Dr Ehlich is a visual learner. She dragged various document highlights and citations to workspaces and organized them around ideas and strategies using color codes and subheadings. She linked together workspace content, and LiquidText connected it back to the original documents in the project. Before LiquidText, the visual information in workspaces was only available in a work product, such as a brief or memorandum, disconnected from sources. Typos or inaccurate citations in handwritten notes could cost Dr Ehlich time finding the original documents to resurrect an argument.

For Dr Ehlich, the crème da la crème of LiquidText was the connections between documents and workspaces. She pinned ideas and citations from numerous documents together in workspaces. Everything that mattered to a project was together in one or more workspaces where the link to original documents was at her fingertips and immediately accessible. Before LiquidText, Dr Ehlich conducted research and notetaking in a serial fashion, document by document, recording her findings in yet another document disconnected from sources.



Excerpts allow users to bring together information from different patents or claims.

LiquidText gathers documents into projects where you can capture notes, highlights, annotations. and observations into workspaces and link the information together and back to the source documents.



https://liquidtext.net

Dr Ehlich started out using one ample workspace per project. But she soon adopted multiple workspaces for each project, switching among them on demand. Although she enjoys the ease and mobility of using LiquidText on Apple iPads, using the software on Microsoft Windows computers in the office with large screens brings additional visual clarity to projects and workspaces. Dr Ehlich uses LiquidText with two large screens in her office. She uses one screen to view and compare graphics and documents side by side, link documents, and scroll through document lists. She drags workspaces to a second screen where her comments, highlights, and citations link back to sources displayed on the first screen.

"I must have information ready, accessible, and manageable," said Dr Ehlich. "I rarely do something without LiquidText - it's self-perpetuating." Whether on an iPad outside the office or on Microsoft Windows PCs in the office, Dr Ehlich's projects synchronize instantly and automatically from the cloud, where they are continuously backed up.

#### **Collaborating with LiquidText**

Dr Ehlich is not working with LiquidText alone. She has schooled younger associates to jumpstart projects for her, uploading documents into projects and overseeing quality control on optical character recognition (OCR) run on document images. Dr Ehlich shares LiquidText projects and thought processes with partners and other colleagues. Other attorneys mark up files and link source documents in shared projects, and everyone, including clients, benefits from the collaboration.

Like any expert software user, Dr Ehlich continues to hone her skills in contextual searching, tagging content, and copying links from project materials to insert into PDF and Word documents. When she clicks the link in an external document, she's transported back to the LiquidText project and into the context of a document, comment, highlight, or idea.

#### LiquidText's impact

"LiquidText follows my brain," said Dr Ehlich, who takes notes and incorporates new knowledge in mind-mapping exercises. In LiquidText projects, she can read and analyze content randomly and use workspaces as a pinboard to pin thoughts to content and formulate patent strategies for clients.

LiquidText saves Dr Ehlich copious amounts of time. Even after years, she can return to a project where her thinking process is preserved and linked to supporting information. The software also saves paper. Dr Ehlich's practice is primarily paperless. She rarely needs to print documents.

Although she uses paper as a backup to LiquidText in court proceedings, she has never needed it so far. Dr Ehlich has everything she needs to prosecute cases in LiquidText on her computer. And she has successfully used LiquidText in two recent court cases. Maiwald is working with LiquidText to provide a direct interface to their new document management system, so Dr Ehlich will have immediate access to the firm's file wherever possible.

#### Better than paper

"People complain to me about the amount of information they need to access and process without relying on paper and worry about preserving their thoughts," said Dr Ehlich. "When I take out my iPad and show them LiquidText, they get big eyes."

"LiquidText works better than paper," said Dr Ehlich. Most notetaking and document creation Everything that mattered to a project was together in one or more workspaces where the

link to

original

documents

was at her

fingertips

immediately

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and

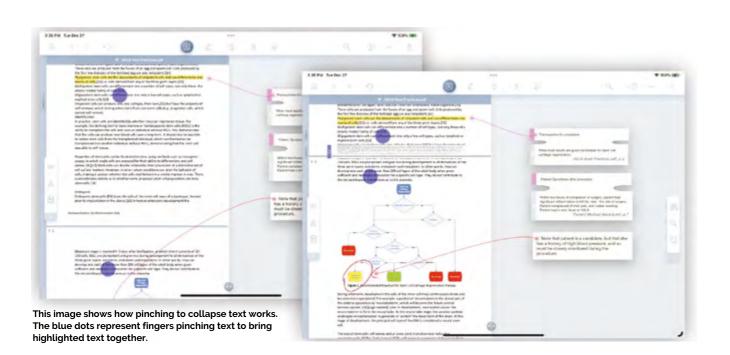
tools mimic how lawyers use paper and map analog processes onto digital formats without considering the benefits of digital transformation and the ability to make connections between source documents and notes. LiquidText interconnects notes and source documents, helps lawyers make present use of previously acquired knowledge, return to a project after a period elapses, share knowledge with a colleague or partner, and quickly retrieve information in courtroom proceedings.

#### What to expect from LiquidText

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## Traditional practices, cultural delights, and reconnecting - AIPPI World Congress 2023 in review

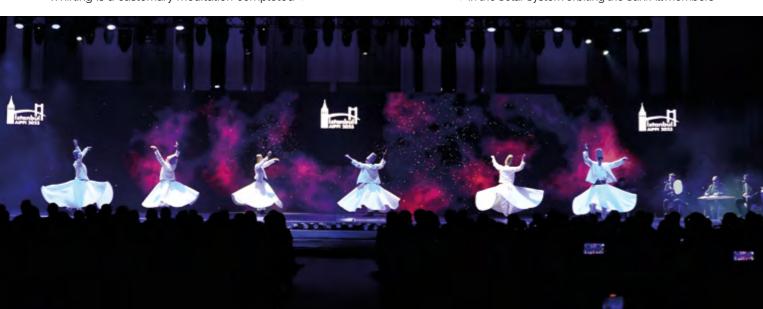
Following on from the success of the annual event, The Patent Lawyer brings you an overview of the delights shared by attendees that extended beyond the program.

n October. Istanbul embraced the IP community as the generous host of the 2023 AIPPI World Congress – and it did not disappoint! The exposure to cultural delights began with a bang right from the Opening Ceremony. After the energetic welcome to 2,000 attendees from 69 countries by Esra Dündar-Loiseau, Chair of the AIPPI Congress Advisory Committee, an address from Habip Asan, Director of the Division for Transition and Developed Countries at the World Intellectual Property Organization, and Muhammed Zeki Durak, President of TÜRKPATENT, a mesmerizing demonstration of Sufi Whirling took the stage.

A practice founded in the 13th century, Sufi Whirling is a customary meditation completed

All members watched in harmonized silence as the meditation took place.

as part of sema worship ceremonies. The continuous turning, performed in traditional attire that fanned out across the stage, is performed to help participants and their audience reach a state of nirvana and forge a greater connection with Allah. Every aspect of the performance was based on tradition. The full skirt robes worn by the meditators symbolize the shroud of their egos, their sikke atop their heads the tombstone of their egos, and the dark cloak, discarded during the whirling, representative of their worldly life. Once the cloaks have been discarded, the individual is spiritually reborn and ready to begin their meditation. The whirling itself is a symbolic representation of the planets in the Solar System orbiting the Sun. All members





watched in harmonized silence as the meditation

Following on from the Sufi Whirling, the dance group Fire of Anatoli took to the stage for a series of enlightening performances that encompassed hundreds of years of folk dance figures and music from different regions. The choreographer Mustafa Erdogan formed the group with the intention of introducing the world to the cultural history of Turkey. Since its formation in 2001, the group has performed around the world and earned a superb reputation, and their performance at the Opening Ceremony did not

It was an honor to absorb Turkish culture from both performances, and the AIPPI attendees were instantly reconnected in advance of the busy few days ahead.

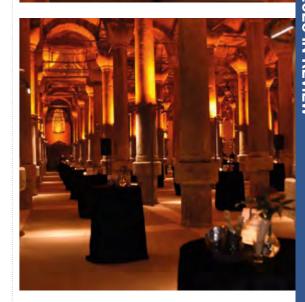
The exceptional education program kicked off the next morning (for further information about the program, read '2023 AIPPI World Congress is around the corner – here's what you need to know', The Patent Lawyer July/August 20231) and the Hilton Istanbul Bomonti Hotel & Conference Center was abuzz with professionals expanding their minds and reconnecting with colleagues and friends. Between the Panel Sessions, Pharma Sessions, and IP Lunches, all

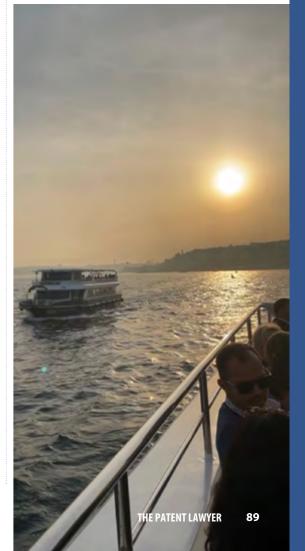
program excellent and offered the flexibility to allow for truly meaningful interactions with the attendees.





AIPPI WORLD CONGRESS







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industry hot topics were discussed from a wide range of perspectives.

Craig O'Dell, Vice President of Sales at iPify, stated:

"The program was excellent and offered the flexibility to allow for truly meaningful interactions with the attendees without the pressure of an extremely intense schedule. All networking opportunities were expertly delivered and we left the event feeling part of a very special community."

The Cultural Evening was a further opportunity to experience Turkey's rich heritage. Held in the breathtaking venue of The Binbirdirk Sarnici, attendees gathered to enjoy each other's company and a selection of Turkish appetizers that circulated throughout the evening. The manmade reservoir is the second largest in Istanbul, created in the fourth century, and later restored in the sixth century following a destructive fire, to store a body of 40,000 M3 of water for the city. While long since used for the purpose of its creation, the Binbirdirk Sarnic is still a structure to admire for its 224 marble columns. Local artists and creatives showcased their work for attendees to browse or purchase as keepsakes and gifts for loved ones back home. The venue had an exceptional atmosphere to reconnect

Xiaojun GUO, Patent attorney at CCPIT Patent & Trademark Law Office, expressed that:

"It was an exciting and energizing conference where I met a lot of people and instead of talking about our businesses, we talked more about our lives, transportation, cultures, environments, etc., and I look forward to meeting again at next year's Hangzhou Congress. I enjoyed the ease of communication and felt rejuvenated at the AIPPI Congress after a three-year pandemic!"

In addition, many social events were hosted throughout the city during the event including a

Held in the breathtaking venue of The Binbirdirk Sarnici,

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Binbirdirk
Sarnici,
attendees
gathered
to enjoy
each other's
company
and a
selection

of Turkish

appetizers.

Bosphorus Strait. Amongst the most unique bodies of water in the world, the Bosphorus connects the Black Sea to the Sea of Marmam and forms the boundary between Asia and Europe. The coastlines of Istanbul glistened as the sun set, and the spectrum of architecture from Mosques to contemporary highrises peppered the orange and pink skyline.

number of cruises along the enchanting

The Closing Dinner offered a taste of Turkey's culinary wonders alongside sensory entertainment from a variety of acts, a brilliant end to a great week.

It is clear from the energy throughout the conference that AIPPI had crafted an event full of developmental opportunities, but beyond this, they have reminded us of the importance of reconnecting with our colleagues and friends, sharing experiences and cultures, all while reinforcing our passion for IP.

Thank you to AIPPI and all of the attendees for a valuable and memorable event.

For more information about AIPPI and its upcoming events, visit www.aippi.org.

https://edition.pagesuite-professional.co.uk/html5/ reader/production/default.a spx?pubname=&edid= 956962e7-a65b-46a6-a413-1833ee58aage&pnum=69



# Alternative features in patent law

Olga Dolgikh, Head of the Patent Department at Zuykov and partners, details the use of alternative concepts in patent protection and litigation to provide a broader scope of rights to IP owners.

or the first time, alternative features were identified and became known in world patent practice from the Markush case in 1924. Dr Eugene A. Markush was the founder and president of the Pharmaceutical Chemical Corporation in Bayonne, New Jersey. He was a leading dye manufacturer in the United States and held more than 20 patents in synthetic dyes and related fields. In 1924, he received a patent for pyrazolone dyes (US No. 1,506,316), which protected a generic chemical structure, in addition to already synthesized products, through the use of the expression "where R is a group selected from." Although Dr Markush did not file the first generic chemical structure patent, he was involved in precedent-setting litigation in the United States for this type of claim. Eugene Markush was the first inventor to successfully use construction in the claims that represented alternative embodiments of the invention. Initially, such a statement of the claims was typical only for chemical compounds or gene sequences, and alternative features were alternative chemical elements or species,



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inventions and utility models, as well as
in registration, preparation, and filing of
applications for inventions, utility models,
software, and databases to Rospatent
and the Eurasian Patent Office (EAPO).
Olga was included in the IAM1000 2021
ranking.



Olga Dolgikh

**Alternative** 

features were alternative chemical elements or species, but in further practice, such use of alternatives began to be used in patent claims for methods, devices, and uses.



but in further practice, such use of alternatives began to be used in patent claims for methods, devices, and uses.

What does Russian patent legislation say about alternative characteristics? The use of alternative concepts is allowed in cases where it is necessary to characterize several different forms of implementation of a feature that ensures (in combination with other features of the invention) the same technical result, but a general concept covering such forms is absent or its use is impossible.

Alternative features are usually included in the claims in the form of concepts in combination with the conjunction "or". It should be taken into account that "alternative" can also stand behind a form of notation such as, for example, "at least one hole." This means that the device has one or more holes. However, this is not a complete list of alternative characteristics.

Let's look at a specific example of an independent claim to see what alternative features might look like, and mark them in bold.

Epoxy adhesive composition, including:

- a) the first part of the composition containing:
- a.1) at least one epoxy resin or mixture of epoxy resins selected from the group consisting of bisphenol A diglycidyl ether, which is brominated, and its oligomers, bisphenol F diglycidyl ether, which is brominated, and its oligomers, epoxide diethylene glycol and its oligomers, as well as their combinations;
- a.2) a reactive diluent selected from diglycidyl ethers of aliphatic C4-C12
- a.3) core-shell nanoparticles, wherein the core contains **or** consists of **at least one** elastomer having a glass transition



temperature (Tg) in the range from -70°C to -110°C, wherein the shell contains or consists of a compatibilizer based on epoxy resin;

- a.4) at least one filler or a mixture of fillers having a thermal compression coefficient of not more than 50 × 10-6 K-1;
- a.5) a reactive binding agent that establishes a chemical bond with the filler, on the one hand, and the hardener forming the second part, on the other;
- b) the second part of the composition containing:
- b.1) a hardener selected from the group consisting of aliphatic polyamines, amidoamines, and aliphatic polyamides, in particular, the reaction products between an aliphatic polyamine and a fatty acid dicarboxylic acid, in particular the reaction products between an aliphatic polyamine and an unsaturated

Let us immediately note that the more alternative options protected, the greater

the volume

of exclusive

available to

the copyright

rights

holder.

C12-C18 fatty acid dimer or the reaction products between an aliphatic a polyamine and tall oil or a tall oil fatty acid dimer;

b.2) at least one filler or mixture of fillers having a thermal compression coefficient of not more than 50 × 10-6 K-1; it is understood that at least one of filler a4) or filler b2) has a thermal compression coefficient of not more than 50 × 10-6 K-1;

b.3) a reactive coupling agent that establishes a chemical bond with the filler, on the one hand, and the resin forming the first part, on the other hand.

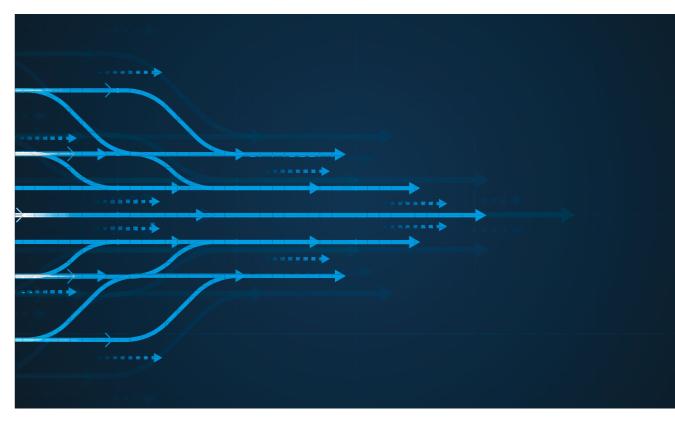
As can be seen from the presented example, the applicant has defended a huge number of different embodiments of the invention. What's good about so many alternatives? Let us immediately note that the more alternative options protected, the greater the volume of exclusive rights available to the copyright holder.

In the case when the formula proposed by the applicant contains a feature expressed by alternative concepts, for example, if an independent claim of the invention contains a set of features A, B, C, D, and feature D is expressed through alternative concepts D1 or D2, the patentability check is carried out in relation to each set of features that includes one of these concepts.

The patentability check is carried out separately in relation to all alternative options and sets of features existing in the invention formula. This means that if any of the alternatives or part of the alternatives do not comply with the patentability condition of novelty and/or inventive step, then the remaining options have the right to life and can be patented, subject to the exclusion of non-patentable alternatives.

Patentability testing may lead to different conclusions for each set of features. It is possible that a set of features that includes one of the alternatives will not meet the requirement of novelty, and a set that includes another alternative will not meet the requirement of inventive step.

In the event that, based on the results of a patentability check, it is established that a set of features containing one of the alternatives is non-patentable, and in relation to a set containing another alternative feature, a conclusion has been reached about the possibility of providing legal protection, the grant of a patent can only take place if the



applicant excludes from the claims of the "defective" alternative.

In the case where several features are expressed as an alternative, obtaining the same technical result must be ensured by combining each of the alternative characteristics of one feature with each of the alternative characteristics of other features separately. Compliance with this condition can be considered confirmed if the description of the invention presents separate sets of features containing various combinations of such alternative features. If such sets are not presented and, in connection with this, understanding the essence of the inventions described in such a formula is difficult to the point of impossibility of conducting an information search, the expert has the right to request appropriate clarifications from the applicant.

For applications containing a claim with many combinations of alternative features, the applicant may be sent a request with a proposal to supplement the description with relevant information on the disclosure of specific variants of the invention formed from specific combinations of features expressed as alternatives, since their absence does not allow examination essentially or clarify the claims so that the essence of each invention of the claimed group can be established.

Separately, it should be noted that, in accordance with the current patent legislation, the use of alternative features in the formulas of a utility model is not permissible, since only one

specific embodiment of a device can be protected as a utility model. Thus, other embodiments of a utility model containing alternative features may be protected by another patent.

Thus, despite the fact that the presence of a large number of alternative features in the claims of the invention makes it possible to obtain a wider scope of legal protection, we should not forget that several different forms of implementation of the feature should ensure, in combination with other features of the invention, obtaining one and the same technical result, as well as the description of the invention, must contain relevant information on the disclosure in it of specific variants of the invention, formed from specific combinations of features, expressed as an alternative. Otherwise, in the absence of such, the chances of obtaining a broad patent are significantly reduced, and the examination may limit patent rights only to the specific embodiments of the invention disclosed and confirmed in the description.

The use of alternative features in the formulas of a utility model is not permissible.



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# At the dawn of a novel patent war: the need for a robust legal framework to handle the impending wave of metaverse patent abuse

John Healy, former Summer Associate at Carter, DeLuca & Farrell, explains the niche territoriality issues and corresponding determinations of liability arising in infringement disputes relating to the metaverse.

he term "metaverse" has frequently percolated over the last year,2 and its prominence presents a unique opportunity for patent attorneys to help clients capitalize on their innovations.<sup>3</sup> The opportunity to procure patent rights is notably the focus of metaversepatent jurisprudential discussion. However, as large multinational enterprises ("MNEs") duel for rights in the metaverse, the judicial system becomes increasingly vulnerable.4 Unique and urgent litigation challenges will continue to jeopardize the sanctities of the patent system and the judiciary must prepare for the impending onslaught of jurisdictional concerns that the metaverse presents. The absence of a calculated approach for handling these challenges may lead to growing uncertainty about the metaverse generally through shallow judicial rulings that confuse the next generation of scholars. The rise of the metaverse attracts malicious actors yearning to monetize off the system's flaws, and introduces a growing need for a scrupulous legal framework to protect the foundations of patent law at the cusp of uncertainty.

## The big players fighting for metaverse-related patent protection

Generally, a patent for a metaverse-related invention may be granted for either hardware components or software processes.<sup>5</sup> It is important to note that software *per se* is not patentable in the United



John J. Healy Jr.

However, the metaverse is virtual and thus defies territorial boundaries.

States under 35 U.S.C. § 101, but computerimplemented methods that add "substantially more" than the mere code may be patent eligible subject matter. Large MNEs like Apple, Meta, Nike, and others have begun fighting for their piece of the metaverse market share through recent patent applications.<sup>6</sup> In 2019, Apple filed a patent application related to "methods and devices for attenuation of co-user interactions" in the simulated reality ("SR") space.7 Meta Platforms Technologies LLC, formerly known as Facebook, acquired a patent related to "an avatar personalization engine that can generate personalized avatars for a user by creating a 3D user model based on one or more images of the user."8 Nike also received a patent on "cryptographic digital assets for retail products," and methods for using and exchanging the assets on a blockchain; this Nike patent is better known for its trade name, "Cryptokicks."9

## Emerging legal challenges arising from an inundated metaverse patent market

Patent rights are "territorial rights" that may only be enforced within registered areas. 10 However, the metaverse is virtual and thus defies territorial boundaries; it is this dichotomy between the two topics that creates a divergence that patent litigators and the judiciary must become weary of. Ironically, even though it defies borders, metaverse patent litigation is best classified as a

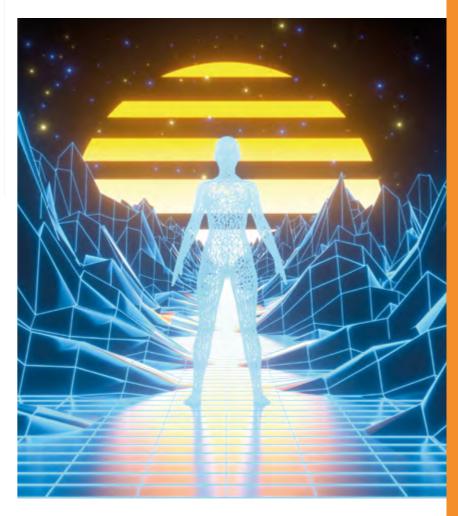
"cross-border dispute." Thus, it is important to determine three critical elements to draw liability in metaverse patent litigation: (1) the place of infringement, (2) the existence of patent rights within the place of infringement, and (3) the identity of the infringer. Absent either of these three elements, determining infringement will prove futile. Even in the initial presence of these three elements, the metaverse may still present challenges.

For instance, when determining the place of infringement, a court must determine where the metaverse exists - that being the "location" of infringement - which may be the location of the infringing user, the location of the server, the headquarters of the provider, or even the metaverse "land," amongst numerous other possibilities. The existence of patent rights in the place of infringement will be tied to which location is being proffered as the proper location.<sup>13</sup> In a case of first impression, if a court were to determine location based on the user's location, the question becomes quite simple: does the patent owner have rights in the country where the user is located?<sup>14</sup> If the patent owner does not have rights in that country, counsel may argue the location should be based on the country where the servers are situated, since the "digital act" is first rendered on the servers and aliased to the user's location. If the patent owner does not have rights in either location, counsel may argue that fairness should permit patent rights to equitably expand over the internet.

The metaverse also poses challenges when locating an infringer.15 Users within the metaverse interact through an "avatar," which is a digital user persona.16 Scholars have questioned whether avatars are entitled to separate and distinct legal sovereignty from the user.<sup>17</sup> In the case where avatars utilize artificial intelligence ("AI"), the question becomes increasingly complicated, where the court must decipher whether the user is responsible for the actions of the AI. Oddly, the Federal Circuit has already addressed a similar issue: whether AI may be considered an inventor.18 Intuitively, if AI cannot create, then AI cannot infringe, but the Federal Circuit in Thaler v. Vidal dismissed this contention, stating in dicta that "Section 271, in setting out what constitutes infringement, repeatedly uses "whoever" to include corporations and other non-human entities. That non-humans may infringe patents does not tell us anything about whether non-humans may also be inventors of patents."19 Since determining "who" is infringing is a baseline question, if AI is said to infringe, then the court must determine who is responsible for the AI when collecting

To illustrate how physical ideas may be infringed in the metaverse, let's take Nike's "Cryptokicks"

- Metaverse Meaning; Different Ways of Defining the Metaverse View Larger Image, METAMANDRILL, https://metamandrill.com/metaverse-meaning.
- Metaverse The Latest Buzzword, GLOBALDATA, https://www.globaldata.com/data-insights/technology--media-and-telecom/metaverse-the-latest-buzzword.
- 3 Scott Vaughan, How Business and Tech Leaders Can Capitalize on the Metaverse, AccelerationEconomy, https://accelerationeconomy.com/metaverse/how-business-and-tech-leaders-can-capitalize-on-the-metaverse.
- Eur. Innovation Council and SMEs Exec. Agency, Intellectual Property in the Metaverse. Episode III: Patents, EUROPEAN COMMISSION (May 30, 2022), https://intellectual-property-helpdesk.ec.europa.eu/news-events/news/intellectual-property-metaverse-episode-iii-patents-2022-05-30\_en [hereinafter Eur. Innovation Council]
- o Ia.
- 6 *ld*
- Id.; US Patent Pub. No. 2021/0339143 (filed Sept. 17, 2019).
- <sup>8</sup> Eur. Innovation Council, *supra* note 5; US Patent No. 11,217,036 (filed Oct. 7, 2019).
- <sup>9</sup> Eur. Innovation Council, *supra* note 5; US Patent No. 11,295,318 (filed May 14, 2020).
- <sup>10</sup> Patents, WORLD INTELL. PROP. ORG., https://www.wipo.int/patents/en/.
- Ben Coleman, Jurisdiction and Torts in the Metaverse, BRISTOWS LLP (Oct. 10, 2022), https://www.bristows.com/news/jurisdiction-and-torts-in-the-metaverse.
- <sup>2</sup> Id.
- Jacob W. S. Schneider, The Metaverse: Patent Infringement in Virtual Worlds, HOLLAND & KNIGHT (Aug. 23, 2022), https://www.hklaw.com/en/insights/publications/2022/08/metaverse-patent-infringement-in-virtual-worlds.
- Richard Wee et al., The Metaverse and Legal Jurisdiction, RICHARD WEE CHAMBERS (Aug. 12, 2022), https://www.richardweechambers.com/the-metaverse-and-legal-iurisdiction
- 15 Coleman, supra note 11.
- <sup>16</sup> Ia
- 17 Id.
- <sup>18</sup> Thaler v. Vidal, 43 F.4th 1207, 1209 (Fed. Cir. 2022).
- d. at 1212.







patent.<sup>20</sup> To directly infringe the patented method, the infringer must perform each step within the United States.<sup>21</sup> Direct infringement may still be possible under the doctrine of equivalents where, pursuant to the Graver Tank test, the patent owner proves that the step in the accused method performs substantially the same function, in substantially the same way, to achieve substantially the same result.<sup>22</sup> Additionally, multi-party direct infringement may result if multiple infringers contribute each step of the claim, and the acts are attributable to a single entity through agency, contract, or joint enterprise.<sup>23</sup> Even if not directly infringing, one may be liable for indirect infringement through induced or contributory infringement, where a third-party's infringement is induced or contributed to by an indirect infringer with knowledge of the patent's existence.<sup>24</sup> While the current law provides helpful carve outs to impose liability on clever infringers (such as § 271(g) which imposes liability for importing a product into the US that was made by a protected method outside of the US), the territorial aspects of the infringement statutes make it difficult for courts today to adequately apply the law to the metaverse's unique qualities.

Now, suppose Meta releases an "open world" metaverse platform that allows users to create minigames of their choosing. Assume that a clever computer scientist creates a minigame that allows users to import physical items into the game, that directly infringes Nike's Cryptokicks patent. While it may seem as though the computer scientist infringed, suppose they are in Mongolia. Now they're outside the United States, and thus not infringing, unless § 271(g) is extended to protect digital processes. What about Meta? Certainly, their headquarters and operations are occurring within the United States (or, at minimum, a server that is interconnected to the United States). Should they be held liable even though they did not know the infringement occurred? Do they

Since determining "who" is infringing is a baseline question, if AI is said to infringe, then the court must determine who is responsible for the AI when collecting damages.

have a duty to monitor each and every program a user makes on their "open world" platform? And if they did have to monitor everyone, wouldn't this become overly cumbersome and inhibit innovation? For another added twist, suppose the computer scientist's avatar performed the method without the user's input. Who will bear the costs of liability - the owner of the avatar, the creator of the minigame, or the platform itself?

The underlying point is striking: current doctrines in patent litigation may not be sufficient to circumvent infringers availing themselves of another's patent without a license. Even attempts to prove direct infringement may be difficult absent some physical realization.25

#### The solution: a patent law **DMCA** equivalent

The metaverse is not unique to the United States: countries around the world are struggling to keep pace with its complexities.26 To address uncertainties, a patent-DMCA (we'll call it the "DMPA" or the Digital Millennium Patent Act) should be codified to prevent patent owners from losing their rights within the metaverse, grant service providers safe harbors and limits on liability, while also allowing for patent owners to seek remuneration from service providers if they fail to meet these safe harbors.

Outside the sweeping legislation behind the DMPA, an interim amendment could extend the "in the United States" provision of § 222 to include individuals acting over the Internet within the United States.27 This is a fine line to walk since expanding patent protection may impermissibly broaden the scope of liability for some, but not all patents.28 This is especially true when considering that all virtual objects in the physical world are merely a chain of ones and zeros that correspond to the memory of code that houses the digital object.29 If physical (or digital) patents were granted unforeseeable digital (or physical) counterpart patents, patentees would essentially receive two patents for the price of one that may normally not be enforced under the doctrine of equivalents.

Lastly, service providers may, sua sponte, capitalize market share through the sale of licenses. For instance, metaverse platform owners could issue end-user license agreements ("EULAs") that reserve certain rights and features to limit or share independent user creation. Metaverse software licensing with a corresponding EULA that acknowledges users will not "use the company's intellectual property to develop or create comparable software" could impose user restrictions within the metaverse. While such licenses may stymie questions of liability, they become overly prejudicial toward users through over-encompassing terms and minimal bargaining power.30 Other contracts or agreements

could also hinder innovation within the metaverse – just imagine an agreement that assigns any intellectual property created within the metaverse to the platform host.31

#### Conclusion

In the face of escalating patent litigation challenges within the metaverse, it has become evident that urgent action is required to address the uncertainties surrounding territorial rights in a non-territorial space. To safeguard the progress of the useful arts in this evolving landscape and facilitate future development, it is imperative to advocate for a statute like the DMPA. Introducing provisions that explicitly recognize the unique nature of the metaverse and establish clear guidelines for patent rights and infringement will create a lasting foundation for innovation and foster an environment that encourages creativity and collaboration. Now is the opportune moment to take action, as we find ourselves at the intersection of technological progress and legal precedent, poised to shape a future where the metaverse thrives as a realm brimming with boundless potential.

#### Résumé

**John Healy** is a third-year student at the Maurice A. Deane School of Law at Hofstra University pursuing a concentration in Intellectual Property and Patent Law. John is a United States Patent and Trademark Office registered patent agent who has experience in both patent prosecution and litigation at Carter, Deluca & Farrell and Ropes & Gray. John will be returning to Ropes & Gray as an Associate in the IP Litigation department in 2024.

John authored "Veto the Black-Box Politics: How Implementing Blockchain Technology Into the United States Voting System Will Give Our World the Transparency We Deserve," which will be published in the forthcoming volume of the Hofstra Law Review and founded the International Business Digest, a blog dedicated to discussing current events surrounding international and business law for the Hofstra Journal of International Business & Law.

John graduated cum laude with a Bachelor of Science in Industrial and Systems Engineering from The Ohio State University. He completed his coursework with a concentration in data science, computer science, and optimization and received his Lean Six Sigma Green Belt.

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Other contracts or agreements could also hinder innovation within the metaverse - just imagine an agreement that assigns any intellectual property created within the metaverse to the platform host.



- <sup>20</sup> US Patent No. 11,295,318 (filed May 14, 2020).
- 21 It is noted that under § 271(f)(1) and § 271(f)(2) impose infringement liability upon sending all or substantially all components to be assembled outside of the US or when sending a non-commodity component specially made or especially adapted for use in the claimed invention. 35 U.S.C. §§ 271(f)(1)-(2). Additionally, § 271(g) imposes infringement liability upon shipping a product into the US that was made by a patented method outside of the US 35 U.S.C. § 271(g).
- Graver Tank & Mfg. Co. v. Linde Air Prods. Co., 339 US 605, 608 (1950).
- 24 35 U.S.C. § 271(b).
- <sup>25</sup> Schneider, *supra* note 13.
- <sup>26</sup> James Cooper, Why We Need 'Meta Jurisdiction' For The Metaverse, The Hill (Dec. 2, 2021), https://thehill.com/opinion/technology/ 583529-why-we-need-meta-jurisdiction-for-the-metaverse
- 27 35 U.S.C. § 222.
- 28 US CONST. art. 1, § 8, cl. 8.
- <sup>29</sup> Schneider, supra note 13.
- 30 Wee, supra note 14.
- 31 Contra id.

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## Prioritizing wellbeing in the IP profession

As we enter into a new year, Diane Silve, Director & Senior Trademark Counsel at Mondelez International, reminds us of the importance of creating and maintaining a repertoire of habits to ensure we are caring for our mental and physical wellbeing in a high-pressure profession.

hen was the last time you checked in with yourself and answered, honestly, the question "How do I feel today?" Wellbeing is not a "nice to have" topic, and the IP community needs to continue talking and caring about it. According to a 2020-21 study about wellbeing in the legal profession, released a couple of years back by the UK legal mental health charity LawCare, "the majority of participants (69%) had experienced mental illhealth in the 12 months before com-pleting the survey," and, "legal professionals are at a high risk of burnout". IP professionals often manage a strong volume of complex matters with tight deadlines, for demanding (and stressed) clients, in competitive environments. IP profes-sionals are also often high achiever individuals and, as such, are the most self-critical judges with strong self-expectations. All these elements combined, or not, with a busy personal life can

'Wellbeing' is defined as "(...) the state of being healthy, happy, or prosperous; physical, psychological, or moral welfare" (Oxford English Dictionary). Wellbeing is often understood as being formed by different pillars: mental wellbeing, physical wellbeing, financial and social wellbeing - we will not talk here about financial wellbeing. There are several cornerstones that IP professionals can use to build and then strengthen their wellbeing:



Diane Silve

- Life in the Law new research into lawyer wellbeing (lawcare.org.uk)
- Healthy Eating Plate | The Nutrition Source | Harvard T.H. Chan School of Public Health
- Resources & Free Audio Practices - Oxford Mindfulness Foundation

#### Résumé

impact wellbeing.

**Diane Silve** is Director & Senior Trademark Counsel at Mondelez International. She has more than 20 years' experience as an IP lawyer. She has worked both in-house and in IP firm for various industries and in different countries. Diane is also a registered Yoga teacher and is undertaking qualifying courses in personal performance coaching and naturopathy. Diane is passionate about wellbeing and generally wants to understand and promote how IP professionals could take more care of themselves.

#### Being physically active

Staying active is a fantastic way for IP professionals to boost their physical health and fitness. But physical activity also reduces symptoms of depression and anxiety (notably due to the chemical changes caused in the brain helping to positively change the mood), enhances thinking, learning, and judgment skills, raises self-esteem, and generally improves overall wellbeing. According to the World Health Organization, one in four adults fail to meet the global recommended levels of physical activity. The UK National Health System (NHS) recommends that adults should try to be active every day and aim to do at least 150 minutes of physical activity over the week. Not everyone has the time to train for 30 minutes every day, but there are ways to integrate physical activities into a busy schedule by making them part of everyday life, e.g., walking or cycling to work, or stopping one bus stop early and walking the remaining part.

#### Eating and drinking

Beyond any weight considerations, building a healthy and balanced diet<sup>2</sup> will significantly improve our physical and mental wellbeing. According to the UK Charity Mind, "some studies suggest that what we eat and drink can affect how we feel". Though, when we are under stress, one of the first things that may slip is our diet along with the urge to find refuge in comfort food. And even when we manage pressure well, it is not always easy to know what to eat or drink as there is a lot of contradictory information out there and healthier foods can be more expensive. Our diet eventually can impact the way we work as IP professionals. For instance, a low or high blood sugar level can have repercussions on our energy, not drinking enough water can reduce our concentration or ability to think clearly, eating sufficient proteins will help our brain produce neurotransmitters that are

necessary to regulate our thoughts and feelings, eating vegetables and fruits will bring nutrients to our body, too high levels of alcohol intake may disrupt chemicals in the brain and caffeine can stimulate but, for some, it can increase anxiety. Some food for thought...

#### Sleeping well

The aforementioned LawCare study:

"Suggests that many legal professionals are getting less than the recommended amount of sleep (seven-nine hours a night) with just over a third of participants (35%) estimating they had slept between six to seven hours a night over the two weeks before completing the survey, a quarter (25%) averaging five to six hours, and over one in 10 (12%) indicating they had less than five hours a night".

While the needs of everyone are different, getting enough sleep is generally important for one's wellbeing. A good night's sleep will notably help with managing stress, reducing anxiety, improving mood, along with increasing focus at work, and improving our relations with people.

#### Beina mindful

Mindfulness practices can improve our wellbeing significantly. Various free and accessible mindfulness techniques such as Yoga, breathing exercises, and meditation<sup>3</sup> can help individuals cope with difficult thoughts, feel calmer in stressful situations, and/or increase their concentration. Being more mindful can help IP professionals to be more present and engaged in the moment, boost their attention, and manage their stress. While the idea of sitting and meditating for 30 minutes may sound daunting for some, mindfulness can also be about noticing simple things that are part of our daily lives, like a smell, taste, a thought, and the air on our face, or focusing on a specific action such as the action of brushing our teeth or the steps we take when we

#### Taking some time for yourself and your hobbies

When we can, taking the time to do what makes us feel happy and fulfilled is an important piece of our wellbeing. Hobbies, from knitting, singing, and gardening, to running or playing music, can help reduce the pressure on IP professionals after a stressful day of non-

professionals are also often high achiever individuals and as such, the most critical judges with strong selfexpectations.

stop meetings, or as a breakaway from work, and give a positive kick to boost their mood and self-esteem at the same time. Hobbies, especially if creative, can help improve the cognitive functions of the brain and train memory by learning or practicing new skills. Such activities can also provide connection with new and/or like-minded people.

#### **Connecting with others**

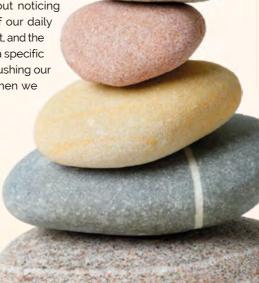
Having meaningful relationships (within a community, family, at work) helps individuals to obtain a sense of belonging and self-worth. Knowing that there is a network of people on which they can rely or with which to share experiences is an important element of the emotional support that IP professionals, like anyone, need. Whenever possible, finding supportive colleagues with whom to chat with about a complex clearance assessment or getting some genuine feedback on the next big presentation to a client may be so helpful. One may also build a strong network of previous colleagues, mentors, or university friends to whom they can reach out to. These connections are important on a personal and professional level. Indeed, discussing helps to see a matter through different lenses, especially when working in an area of law, such as trademarks, that can be subjective.

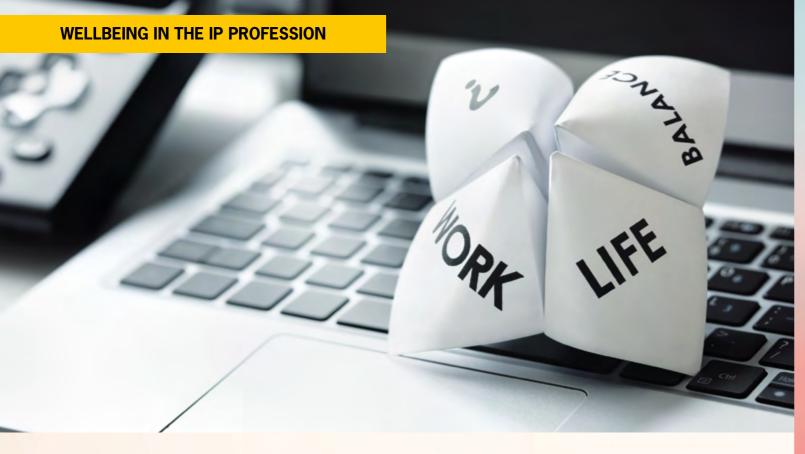
These are simple, non-ground-breaking practices but are, unfortunately, not always easy to maintain in the long run. This is especially true when individuals are under pressure: "I am waiting for counsel to call to discuss a risk assessment," "I have so many deadlines to handle," "I need to finalize this injunction request," "I have 560 pages of use evidence to review," etc. In such cases, IP professionals may well go their day sitting the whole time at their desk, not moving except to go to the cafeteria to buy the crisps and soda which will be eaten quickly in front of their screen, or to get their fifth cappuccino of the day, and while doing so, hardly talking to others because they don't have

For many, such periods of stress can last for a long time, if not permanently. This makes it even more difficult to maintain a healthy and balanced way of being. For some, this can become another type of vicious circle, when the more stressed they become, the less they prioritize their wellbeing, the less well they are, and the more guilty they may feel for not keeping up with healthy

> eating, sleeping, and other practices. So what? Is there a way for us, IP professionals, to break the circle and to be well, or better, physically and/ or mentally despite the stress and the tensions we may be going through?

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There are no right or wrong wellbeing practices, nor any good or bad ways to apply them. What may work for one may not for another: some may need to bake, others to meditate, journal, or cycle. In any case, what is important is to identify what our **coping strategies** are which help us to feel better and on which to then rely when things are getting more difficult.

Sometimes we are so buried under work matters and/or a demanding private life that we may not even notice that we may be dropping our wellbeing ball. As such, installing a regular self-wellbeing check-up with simple questions to answer may be very useful:

- How do I feel, mentally and physically on a scale from one to 10?
- Do I sleep well these days?
- How is my stress level?
- Is there anything I can do to improve how I feel?

Mental Health First Aid England proposes such a simple tool<sup>4</sup> that uses notably the notion of a "stress container" and helps us to question how full it is and how we can use our coping strategies to reduce stressors and prevent overflow.

Trying to fit in, at all costs, time (and energy) for a walk and for cooking nutritious food may quickly become exhausting. In such cases, we may need to recognize and accept the situation as it is. For example, we may recognize that we are doing our best but that there is just so much going on and that most of our energy is focused

night's sleep will notably help with managing stress, reducing anxiety, improving mood, along with increasing focus at work, and improving our relations with people.

4 Weekly Wellbeing Checkup.pdf (mhfaengland.org)

To be fully transparent, while writing this article, I questioned whether I myself could legitimately write about wellbeing, despite my passion for the topic. Like all fellow IP professionals, I have experienced high levels of stress and times during which most, if not all, of my wellbeing strategies vanished quickly before I realized I was feeling unwell. Luckily, I could notice where I was heading, and also count on lovely colleagues to check on me. Wellbeing is as much an individual responsibility as a collective one, especially in

on this big litigation matter we are working on and taking care of our family but accepting that we may be too tired to go to our HIIT or pottery class without labeling ourselves as lazy. It is vital to be kind to ourselves as we would be kind to others in the same context and try to release this extra pressure we may put on our shoulders. We need to remember that a five-minute meditation or stretching exercise or 10-minute gardening session is better for our wellbeing than nothing at all instead of waiting for our energy to return. One may also use the 'just two minutes' principle: just a two-minute breathing practice, exercise, or break in the garden is a step towards maintaining that wellbeing balance. Starting small is the best way to grow a practice. And most importantly, celebrating all the little

the work environment.



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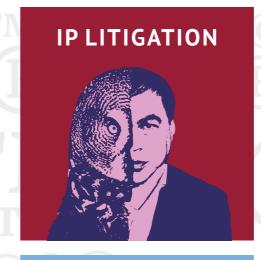
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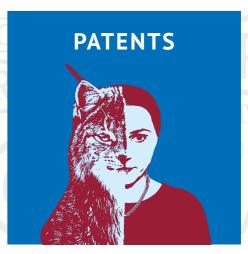
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