D YOUNG & CO PATENT NEWSLETTER no.95

June 2023
In this issue:

Editorial

After so many years of hope, anticipation and false starts, the unitary patent and Unitary Patent Court has come into existence. Whether it will be a success, or how that will even be assessed remains to be seen, but the new court undoubtedly offers a quicker and cheaper way for litigants to obtain pan-European (in the context of the relevant states) resolution of validity and/or infringement. The cost savings of the unitary patent (due to the renewal fees) may also be sufficient incentive for a critical mass of relevant rights falling within the jurisdiction of the court such that a sweet spot of litigation may exist that sets this new venture into motion. How the courts handle the first generation of cases will set the tone for the future and possibly draw in the next generation of patent rights to those presently selected for the opt-out procedure. It is very much hoped that the many, many hours invested by all involved over the past 30+ years in bringing this project to reality is rewarded with a broader access to justice for both patentees and third parties. This issue devotes several articles to interesting concepts that may arise before the new courts as well as addressing the recent decision of the Enlarged Board of Appeal and other interesting topics emanating from the EPO.

Neil Nachshen, Editor

Events

BIO International Convention
Boston, USA, 05-08 June 2023
Patent partners Charles Harding and Simon O'Brien from our biotech, chemistry & pharma team will be attending this event.

IPO Annual Meeting
Boston, USA, 10-12 September 2023
Trade mark partner Jackie Johnson (member of the International Trademark Law and Practice Committee) and patent partners Garreth Duncan (Vice-Chair of the Pharma and Biotech Committee) and Nicholas Malden (member of the Software Related Inventions Committee) will be attending this event.

www.dyoung.com/events

Subscriptions

Email subscriptions / mailing preferences:
subscriptions@dyoung.com

Read online and view previous issues:
www.dyoung.com/newsletters

Our privacy policy is published at:
www.dyoung.com/privacy

Follow us

LinkedIn: dycip.com/linkedin
Twitter: @dyoungip

UP & UPC

Unified Patent Court
The beginning of a new era

Thursday 01 June 2023 marked the beginning of a new era for the European patent system: after decades of working towards simplifying patent litigation in Europe, the Agreement on a Unified Patent Court (UPCA) has entered into force, and the Unified Patent Court (UPC) has opened. Moreover, as an alternative to the classic European patent, proprietors of newly granted European patents can choose European patents with unitary effect also known as unitary patents (UP), that cover, for now, the territories of 17 member states of the European Union (EU), taking part in an enhanced cooperation of the EU.

The UPC has started with 22 locations across 17 participating member states, with seven participating member states expected to join later. The remaining EU member states (Croatia, Poland and Spain) can also join, if they wish to do so. As further states join, territorial coverage of newly granted unitary patents will extend to include these states.

> Thus, from its very beginning, the UPC's jurisdiction already covers a population of 296,678,702 (66.4 % of population of the EU in 2022) and gross domestic product (GDP) of 11,234 billion EUR (77.9 % of the GDP of the EU in 2021).

With the additional seven participating member states the UPC's jurisdiction would cover a population of 357,786,025 (80.1 %) and GDP of 12,591 billion EUR (87.3 %).

It is possible to opt out European patent applications and classic European patents from the jurisdiction of the UPC during a transitional period, so that national courts in each participating member state remain solely competent for the opted-out European patent applications and classic European patents.

The UPC proves that where there's a political will, there's a way – into uncharted territory towards economic growth and innovation throughout the EU.

This new court is an ambitious project. The court is equipped with a purpose-built tailor-made electronic case management system (CMS). Although this new system has been overwhelmed during the last three months before the start of the UPC, the period known as sunrise period, by applications to opt-out classic European patents, one can see that the CMS will be the backbone of the highly branched court, that has the potential to provide unparalleled functionalities and external connectivity.

Much has been said and written about the pros and cons of opting-out from the jurisdiction of the UPC. However, the political will in the EU is to unify and strengthen patent litigation across a large number of states.

The relevance of the UPC to patent litigation in Europe cannot be overstated. With harmonisation, efficiency, and effective patent enforcement at its core, the UPC offers a way out of fragmented litigation and varying legal systems.

However, with new options in addition to established practice, taking decisions can become even more complex and complicated for stakeholders than before.

The Unified Patent Court (UPC) is a court of law and parties must be represented by an authorised lawyer or qualified attorney. Our German and UK-based European patent attorneys are appropriately qualified to handle litigation matters directly before the UPC - individually, or as part of cross-disciplinary and cross-border teams.

Good luck! * Viel Erfolg! * Bon courage!

Author:
Hanns-Juergen Grosse

Unified Patent Court
Opt-out challenges

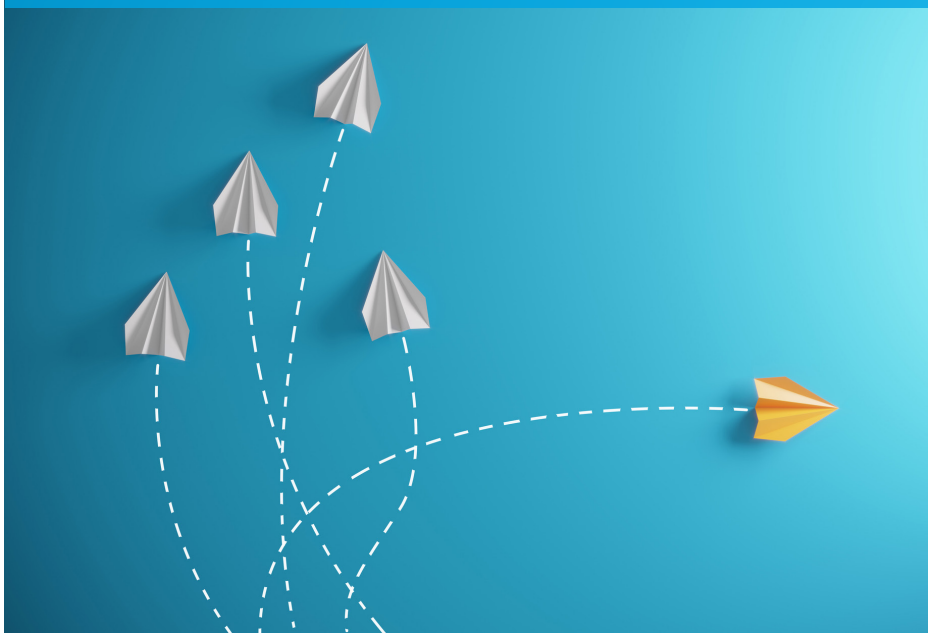
The UPC is the default litigation forum for unitary patents (UPs), as well as for conventional European patents. During the transitional period, which will last for seven years until 01 June 2030, the UPC will share jurisdiction over conventional European patents with respective national courts for those states that are member states of both the European Patent Convention (EPC) and the UPC. However, patent proprietors and applicants can, during this transitional period, opt out their granted European patents, published European patent applications, and supplementary protection certificates (SPCs), from the jurisdiction of the UPC, provided that an action has not already been started at the UPC in respect of the right to be opted-out.

For an opt-out to be valid, it must be submitted by the true proprietor(s) or applicant(s) of the right, or their representative. The true proprietor(s) or applicant(s) may not be the same as that registered before the EPO or before various national patent offices, and, indeed, the registered owner(s) is not actually relevant to the validity of the opt-out. Where there are joint proprietors or applicants, or where the ownership differs between different contracting states, the application must be made in the name of all owners.

Opt-out requests will be published by the UPC on the court's website for all to see, without the UPC conducting any formal checks as to the validity of those opt-out requests. This means that all opt-out applications will be processed and published by the UPC, irrespective of whether or not they are valid.

This therefore opens up the possibility of challenges to the validity of opt-outs by third parties. According to the wording of Article 32 of the agreement on a Unified Patent Court (UPCA), the UPC has exclusive competence in respect of a number of actions relating to patents and SPCs, including but not limited to infringement, revocation, and award of injunctions, damages, or declarations of non-infringement. Challenges to the validity of opt-out requests are not mentioned in Article 32 of the UPCA, and so it may be

European patents, published patent applications and SPCs can be opted out from the UPC



expected that a standalone action in respect of the validity of an opt-out is not likely to be something that the UPC will countenance. It can therefore be expected that an opt-out challenge may be brought before the UPC as a first step of a larger action, such as a revocation action. If the opt-out challenge fails then the action is dismissed. However, if the opt-out challenge is successful, and the opt-out is found to be invalid, the patent or UPC is then pulled into jurisdiction of the UPC and the action may proceed from there. While this does mean that frivolous or bad-faith challenges to the validity of opt-outs are unlikely in view of the costs associated with actions filed at the UPC, there is a very real chance that a third party may be able to bring an action at the UPC that first seeks invalidity of an opt-out. Therefore, simply filing an opt-out application, without first ensuring that it is filed in the name of the true proprietor(s)/applicant(s), is not enough to ensure that a patent, SPC, or published application will sit safely and indefinitely outside of the UPC's jurisdiction. In view of this possibility of challenging the validity of an opt-out, it is advisable to ensure that the ownership of European patents, published applications, and SPCs is carefully reviewed before filing of an opt-out application.

Requests for corrections of opt-outs may also be filed by patent or SPC owners. For example, a request to correct (or withdraw) an opt-out may be filed if an error is noticed (for example, in respect of ownership), or if a third party opted out the patent or SPC without the consent or knowledge of the true owner. Any correction will only be effective from the date at which the UPC accepts the correction, and does not have retroactive effect. This means that if a revocation action is brought at the UPC in respect of an opted-out patent, which includes a challenge to the opt-out, and the owner at this stage realises that the opt-out was not requested in the name of the true owner(s) for all states, then it is too late to correct the opt-out. It is therefore necessary, where an error or out-of-date information in respect of the ownership of an opted-out patent, SPC, or published application is spotted, that a request for correction of that opt-out is filed as early as possible.

Author:
David Al-Khalili

Revocation at the UPC
Can UPC revocation actions be filed using a "strawman"?

Amongst other uses, the Unified Patent Court provides the opportunity to revoke a patent in any country that is a signatory to the UPC and which has not opted out.

At present, a single revocation action at the UPC could invalidate the patent in all of the 17 states that have signed and ratified the Agreement on a Unified Patent Court (UPCA). There are a further seven states that have signed the UPCA, but that still need to ratify it.

Whilst a revocation action is expensive (the court fee is €20,000) this gives the revocation a broad geographical coverage and, unlike EPO opposition proceedings, there is no time limit in which to revoke the patent within the UPC.

> One important feature of the EPO opposition procedure is that anyone can oppose a patent within nine months of the grant of the patent (other than in an abuse of process). This provides the ability for opponents to hide their true identity by using a so-called "strawman". A strawman is a party (for example, a company) that files the opposition on behalf of the true interested party.

There are many advantages to using a "strawman" when filing an opposition or revocation action. For example, the interested party may wish to avoid alerting the patent proprietor to its interest in the patent, or it may have an amicable relationship with the patent proprietor.

Now the UPC has started, companies will want to know: can UPC revocation actions be filed using a strawman?
With no case law or practice established by the UPC, we must turn to the legislation to try to answer this question.

Article 47(6) UPCA states that "[a]ny…natural or legal person…who is **concerned** by a patent, may bring actions in accordance with the Rules of Procedure". (emphasis added).

While it is not clear what constitutes "concerned by a patent", this requirement indicates some level of interest in the patent by the party trying to revoke the patent.

It may be that the UPC interprets "concerned by" as a legal interest or standing by the person bringing the action. This would be consistent with the procedure in some UPC member states. For example, in France a third party may commence revocation proceedings if it has a legal interest. This usually requires the third party to be a competitor to the proprietor, or to show that commercialisation or manufacturing of relevant products or services is imminent in order to bring a revocation action. However, it should be noted that the wording in the relevant section of the French Civil Procedure Rules specifically states "a legitimate interest" in the success of the action rather than a "concern" with the patent as in the UPCA, and so the intention of the legislator of the UPCA may be argued to be different.

Obviously, it is for the UPC to ultimately decide what is meant by the person being "concerned by a patent". However, the wording of the UPCA, and the procedure before some other courts of UPC member states, suggests that there needs to be some legal interest by the party bringing a revocation action. If the court takes this view, this may prohibit a strawman bringing a revocation action on behalf of someone else before the UPC.

It is interesting to contrast this possible approach with the EPO's opposition procedure, where it has been long established that any person (other than for an abuse of process) may start opposition proceedings. As found by the Enlarged Board of Appeal in G3/97, there is no legal interest requirement at the EPO. This difference in approach may be explained by the remit of each tribunal. The EPO is solely interested in patent validity and actually sees the opposition procedure as a legal remedy in the public interest.

However, the UPC has a broader remit, which includes both infringement and validity, and must balance the interests of the parties to the dispute. Indeed, Rule 49(2) of the Rules of Procedure at the UPC provides a defence to revocation to include a counterclaim for infringement. Accordingly, a revocation filed by a strawman, which is unconnected to the interested party, would remove a possible defence for the patentee. This would seem inequitable in the dispute.

Author:
Jonathan Jackson

In short

The question of whether a strawman can bring a revocation action before the UPC on behalf of an interested party will ultimately be formed by case law, and the interpretation of the term "concerned by" will obviously determine this.

Until it is finally settled, interested parties that require the use of a strawman for commercially important reasons should continue to use the EPO opposition procedure, rather than relying on a UPC revocation action.

Cyber security technology
Patenting cyber security inventions in Europe

Useful links

- *Genesis Market: "Popular Cybercrime Website Shut Down By Police", 05 April 2023: dycip.com/genesismarket*
- *EPO Guidelines for Examination, 3.3 Mathematical methods: dycip.com/epoguidelinesmath*

The shutdown of Genesis Market, one of the world's biggest criminal online marketplaces, has been recently reported. The site offered for sale stolen, sensitive information to fraudsters, including login, browser history and IP address information.

With the growing distribution of sensitive information across global computer networks there is a constant need for innovation in the field of cyber security.

Can cyber security inventions be patented at the EPO?

Inventions relating to cyber security are often based on complex mathematical techniques implemented using computers. Such computer-implemented inventions are examined in a particular way at the European Patent Office (EPO).

First, it is determined whether the claimed subject matter falls into any of the exclusions to patentability defined under European patent law. To avoid falling into such an exclusion (such as those relating to mathematical methods) it can be ensured that the use of technical means (for example, as a computer) is defined in the claims.

Second, it is determined whether the claimed invention provides a technical effect (rather than, for example, merely providing a commercial benefit). Importantly, the technical effect must be above and beyond the mere implementation of the method using technical means. A technical effect of a claimed feature must be demonstrated in order for that feature to contribute to an inventive step at the EPO.

Technical application or implementation

Under European practice, a computer-implemented mathematical method, such as those which might underpin new cyber security technology, can contribute to the technical character of an invention due to:

1. its **application** to a particular field of technology, and/or
2. being adapted to a specific technical **implementation**.

Point 1: application

Regarding (1), features of a mathematical method may contribute to an inventive step if it is defined in the claims that those features are directed to a specific technical purpose. A sufficient link must therefore be established between this technical purpose and the claimed mathematical steps. Helpfully, the EPO Guidelines for Examination list certain cyber security-related concepts, such as encrypting or signing electronic communications, and generating cryptographic keys, as examples of such a technical purpose. This suggests that explicitly directing a claim to a specific cyber security purpose can help demonstrate there is a technical **application** of the technology.

Point 2: implementation

Regarding (2), features of a mathematical method may also contribute to an inventive step if they take into account the functioning of the technical system on which they are **implemented**, and improve this functioning in some way. For example, a security process might satisfy these requirements if it is designed to be particularly computationally efficient on the computer system on which it is implemented.

It is therefore helpful to have information in a patent application which shows at least one of these criteria are met. Demonstrating they are **both** met may further increase the chances of success. For example, if an EPO examiner disagrees that the **application** to which the claims are directed is technical, but the description nonetheless shows an improved specific technical **implementation** is provided, it may still be possible to convince the examiner that the claimed features contribute to an inventive step.

Patent protection and secrecy

For new cyber security technology, some secrecy may be necessary to ensure potential fraudsters do not circumvent it. However, filing a patent application necessarily results in the contents being publicly disclosed when it is published.

One alternative to seeking patent protection is to instead keep the technology as a trade secret. However, this can be risky. In the event of a leak, or someone reverse-engineering the invention, the technology becomes public knowledge and can be copied by competitors.

> A potential solution is to obtain a patent which covers the essential features of the invention without disclosing specific implementation details that a potential fraudster could use to evade the security system.

For example, the patent may disclose all features essential for carrying out the invention in sufficient detail that a person skilled in the field would understand how to put it into practice generally, but certain specific implementation details (such as specific cryptographic keys) can be kept secret.

Authors:
Rosemary Elliot & Arun Roy

In short

Innovation in cyber security technology is increasingly important. It is possible for such technology to be patented at the EPO if it can be demonstrated that a technical effect is present.

Writing the patent application to support the presence of a technical effect and to provide sufficient information without compromising security is highly desirable.

G 2/21
Has anything changed?

After the flurry of reaction to the Enlarged Board's (EB) decision in G 2/21, it is perhaps a good time to seek a deeper understanding of the EB's conclusion, how they reached it and how they responded to the questions posed in T 116/18.

The immediate reaction online to the decision was of attorneys emphasizing the need to correctly draft initial applications and include all relevant data. But this has always been the correct advice. From an attorney's perspective, it has never benefited an applicant to deliberately withhold data available at the filing date to support the invention. This deeper analysis of the decision, seeks to ascertain whether this is the underlying message of the EB and whether any changes in practice can be expected.

In their referral decision, the Enlarged Board of Appeal (EB) set out three lines of TBA decisions regarding whether post-filing data should be taken into consideration[1]. The EB emphasized the fact that such a question was applicable to the analysis of sufficiency (specifically in medical use cases) and inventive step. The three approaches were described as *ab initio plausibility* (where the applicant/patentee has a burden to demonstrate an effect), *ab inito implausibility* (where data would be admitted unless the examiner or opponent could demonstrate a reason the effect was unlikely) and a third option where all data was admissible without further analysis. The supporting case law was described under heading Type I, Type II and Type III respectively.

Amicus briefs were submitted from a variety of industrial organisations, specific companies, specific individuals (patent attorneys), bodies representing patent attorneys (CIPA, FICPI, IIPLA) and the President of the EPO. On balance (of numbers), the amicus briefs expressed a slight preference for *ab inito implausibility* i.e. benefit being given to the applicant and the burden in post-grant proceedings being on the opponent but there was significant call for the EB to maintain a balanced approached fair to applicants and the public. There was also support for the EBA to embrace the question as it applies to both sufficiency and inventive step.

In their preliminary comment (issued in 13 October 2022), the EB expressed an initial view that as sufficiency was not at issue in the referring decision, they did not consider it "appropriate to extend the clear scope of the referral…"and would steer clear of addressing it. Furthermore, their comments were understood as pointing towards *ab initio implausibility* as they referred to "*any significant reason to doubt*" and "*in the absence of any such doubts*" when summarising the understanding to be derived from the original specification.

G 2/21 concerned whether post-filing data can support technical effect for inventive step

The decision may therefore have come as somewhat of a surprise to all stakeholders regardless of their preferred outcome.

Despite acknowledging that sufficiency was out of the scope of the referring decision, in recognition of the importance of post-filing data to the question of sufficiency of medical use claims (and other related fields where the technical effect is in the claim), the EBA included some commentary and an "Intermediary Conclusion" on plausibility as applicable to Art 83 EPC. In doing so they confirmed the status quo where:

> "In order to meet the requirement that the disclosure of the invention be sufficiently clear and complete for it to be carried out by the person skilled in the art, the proof of a claimed therapeutic effect has to be provided in the application as filed, in particular if, in the absence of experimental data in the application as filed, it would not be credible to the skilled person that the therapeutic effect is achieved. A lack in this respect cannot be remedied by post-published evidence." (para 77)

and confirmed that

> "the scope of reliance on post published evidence is much narrower under sufficiency of disclosure (Article 83 EPC) compared to the situation under inventive step (Article 56 EPC)."

Turning to inventive step, the EB reviewed the EPO case law on each of the approaches set out in the referring decision and reached a unifying conclusion:

> "when analysing the case law in more detail and irrespective of the conceptual terminologies for what questions 2 and 3 refer to as two distinct plausibility approaches, the Enlarged Board understands from the case law of the boards of appeal as common ground that the core issue rests with the question of what the skilled person, with the common general knowledge in mind, understands at the filing date from the application as originally filed as the technical teaching of the claimed invention." (para 71)

Useful link

European Patent Office, GL G.VII.5.2: dycip.com/formulationtechproblem

Notes

1. *The question regarding the free evaluation of evidence is not being addressed in this article).*
2. *"Plausibility" is often used to mean the same as "credible", a term that is used in Guidelines with regard to assessing whether the technical problem has been solved "A technical problem may be regarded as being solved only if it is **credible** that substantially all claimed embodiments exhibit the technical effects upon which the invention is based." (penultimate paragraph of GL G.VII.5.2). No guideline is provided as to the source of the evidence of the solution.*
3. *The Guidelines do not address the nature of the "technical effect" when identifying "the technical effect resulting from the distinguishing features".*
4. *Repeated in GL G.VII.11 where an example is provided that a later effect of "low toxicity" for a pharmaceutical would be considered "since pharmaceutical activity and toxicity are related in the sense that the skilled person would always contemplate the two aspects together".*

In the following paragraph, the EB stated that by application of such an understanding they were;

> "satisfied that the outcome in each particular case would not have been different from the actual finding of the respective board of appeal. Irrespective of the use of the terminological notion of plausibility, the cited decisions appear to show that the particular board of appeal focussed on the question whether or not the technical effect relied upon by the patent applicant or proprietor was derivable for the person skilled in the art from the technical teaching of the application documents."

The EB went on to conclude that a similar approach appears to have been taken by national courts.

The EB effectively neutralised the thorny issue of plausibility or implausibility by describing it as "*a generic catchword seized in the jurisprudence of the boards of appeal, by some national courts and users of the European patent system.*"[2]

The EB then elected to provide "guidance" that effectively seeks to reassert the basic principles of the "patent bargain".

The "guidance" appears in paragraphs 93 and 94 reproduced below with the authors emphasis added:

> "93 The relevant standard for the reliance on a purported technical effect when assessing whether or not the claimed subject-matter involves an inventive step concerns the question of **what the skilled person, with the common general knowledge in mind, would understand at the filing date from the application as originally filed as the technical teaching of the claimed invention. The technical effect relied upon, even at a later stage, needs to be encompassed by that technical teaching and to embody the same invention, because such an effect does not change the nature of the claimed invention.**
>
> 94 Hence, a patent applicant or proprietor may rely upon a technical effect for inventive step if the skilled person, having the common general knowledge in mind, and based on the application as originally filed, **would consider said effect as being encompassed by the technical teaching and embodied by the same originally disclosed invention.**"

Emphasis has been placed on the "technical teaching" and whatever is "encompassed" by such teaching. For any reformulation of a problem, the technical effect must still be embodied by that original technical teaching and not change the nature of the invention. This language is somewhat consistent with that used in the Guidelines for Examination, regarding the reformulation of the problem[3]: "*any effect provided by the invention may be used as a basis... as long as said effect is derivable from the application as filed (see T 386/89). It is also possible to rely on new effects submitted subsequently during the proceedings by the applicant, provided that the skilled person would recognise these effects as implied by or related to the technical problem initially suggested*" (GL G.VII.5.2[4]).

Quick reference guide to the decision

Topic	Paragraph of the reasons
Scope of the referral	01-12
Admissibility of the referral	13-20
Preliminary considerations	21-26
Free evaluation of evidence Analysis of Enlarged Board of Appeal decisions Analysis of Technical Board of Appeal and national decisions Intermediate conclusion	27-59 35-37 38-54 55-59
Inventive step Analysis of EPO case law Intermediate conclusion	 60-69 70-72
Sufficiency Analysis of EPO case law Intermediate conclusion	 73-76 77
Inventive step National law Intermediate conclusion	 78 86
Concluding considerations Free evaluation of evidence Technical effect for inventive step	 88-91 91-95

It would appear that the guidance places the initial burden on the applicant/patentee but this will no doubt not exclude the possibility of circumstances where a burden will be placed on an opponent to challenge a prima facie case of credibility – how else could the EB have reconciled the existing case law!

Many may see this decision as an opening to a whole new cycle of debate but, in reality, it will be the same debate (possibly absent the word "plausibility") with all parties capable of finding supportive wording and phrases in the decision.

So the initial advice of including all effects in an original application undoubtedly remains true and applicants will continue to live with the pressure of a "first to file" system, the need to maintain sensitive data confidential and/or disclose/publish their data. Looking ahead to oppositions, appeals and no doubt proceedings before the UPC, the debate will continue with the new guidance of the EB and nuances it may introduce.

Author:
Neil Nachshen

T 1473/19
Claim interpretation in view of the description

In T 1473/19, the European Patent Office (EPO) Board of Appeal revoked a patent for added matter, because the normal interpretation of the claim lacked basis following a missing comma discrepancy between the claims and the description.

At first glance, this case appears to be a reminder of how easy it can be to fall foul of the added matter trap at the EPO. However, there are other interesting aspects to this decision, particularly questioning whether Art.84 EPC relates to claim interpretation, where Art. 84 of the European Patent Convention (EPC) is often used as basis to justify a request for amendments to the description to be in-line with allowed claims.

Background

EP2621341B1 relates to a contactless rotary joint, where claim 1 recites: "…a rotary joint body (200) of a plastic material, said body having a free inner bore holding a capacitive data link…"

The opponent asserted that claim 1 contains added matter because it requires that the free inner bore holds the capacitive data link (interpretation a), whilst the application as filed only discloses a joint wherein the rotary joint **body**, not the bore, holds the capacitive data link.

The opposition division rejected the opponent's argument and agreed with the patentee that claim 1 should be interpreted in the context of the specification, and thus found no added matter.

Appeal

The opponent appealed the decision of the opposition division, asserting that claim 1 is clear and there is no reason to consult the description to interpret the claims, so the lack of a disclosure in accordance with claim 1 means that the claims comprise added matter.

The patentee asserted that the claims did not comprise added matter because they should be interpreted in the context of the description. The patentee submitted auxiliary requests for correction under R.139 EPC, adding commas defining the "free inner bore" as a sub-clause: "said body, having a free inner bore, holding a capacitive data link" (interpretation b).

The Board of Appeal thus had to interpret the claims to decide if the claims contained added matter and if the proposed corrections would broaden their scope.

Interpretation

Articles 69 and 84 EPC refer to the scope of protection of claims:

- Article 69(1) EPC states: "The extent of the protection conferred by a European patent or a European patent application shall be determined by the claims. Nevertheless, the description and drawings shall be used to interpret the claims."

- Article 84 EPC states: "The claims shall define the matter for which protection is sought. They shall be clear and concise and be supported by the description."

The Board of Appeal noted in it's decision at 3.3 that, according to established case law, claims must be interpreted through the eyes of the person skilled in the art, who should "try, with synthetical propensity, i.e. building up rather than tearing down, **to arrive at an interpretation of the claim which is technically sensible and takes into account the whole disclosure of the patent."** (Case Law of the Boards of Appeal, 10th edition 2022, II.A.6.1, first paragraph).

However, the Board of Appeal noted that there is divergent case law over the extent to which the description and drawings should be used to interpret claims. In many decisions, the description and drawings were used to interpret claims and identify their subject-matter (case law of the Boards of Appeal, 10th edition 2022, II.A.6.3.1, second paragraph), whilst in others, the description and drawings were only used to interpret claim features that were ambiguous, whilst unambiguous terms were interpreted without taking the description and the drawings into account (T 197/10, T 1127/16).

Interestingly, the Board of Appeal noted in it's decision at 3.8 that in it's view: **"Article 69 EPC and the Protocol are the only provisions in the EPC containing rules for the interpretation of patent claims. Article 84, first sentence, EPC does not contain any such rules".** Rather, the rationale underlying both the specific requirements under Article 84, second sentence, EPC (as to clarity see, for example, T 6/01, Reasons 14), and the general requirement under Article 84, first sentence, EPC (see T 3097/19, Reasons 28 and 28.1), is to enable a clear delimitation of the extent of protection. In other words, claims must satisfy the requirements under Article 84 EPC so that they can fulfil their purpose of enabling the protection conferred by the patent to be determined under Article 69 EPC (see G 2/88, Reasons 2.5). Article 84 EPC, however, says nothing about how to interpret patent claims. At most, it defines the standard to be applied when assessing clarity.

The Board of Appeal further noted in its decision at 3.13 that a patent claim must, like any text, be interpreted in its context, which includes the description, agreeing with T 556/02 and T 1646/12 and adding that: "the description and the drawings provide context-specific information about the claimed subject-matter. Taking this information into account when interpreting a patent claim from the perspective of the person skilled in the art makes claim interpretation more accurate, which contributes to legal certainty; all the more so if, as is often the case, patentees use terms idiosyncratically in the claims."

However, in assessing the extent to which the description should be considered when interpreting the claims, the Board of Appeal emphasised at 3.16 that the claims carry more weight and that this is compatible with Art.84 EPC: "one must not deduce from the applicability of Article 69 EPC in conjunction with Article 1 of the Protocol that the description has the same weight as the claims". According to Article 69(1), first sentence, EPC only the claims determine the extent of protection. The Board of Appeal noted that there is no contradiction on this issue between Article 69(1), first sentence, EPC and Article 84, first sentence, EPC.

Useful links

- *Patent EP2621341B1, European patent office, 26 April 2017: dycip.com/eprotaryjoint*
- *Case Law of the Boards of Appeal, 10th edition 2022, II.A.6.1: dycip.com/boacaselaw6-1*
- *Case Law of the Boards of Appeal, 10th edition 202\2, II-A 6.3.1: dycip.com/boacaselaw6-3-1*
- *GL: H-V 2.7, European patent office: dycip.com/epoguidelines2-7*

Case details at a glance

Jurisdiction: European Patent Office
Decision level: Board of Appeal
Applicant: Schleifring GmbH
Citation: T 1473/19
Date: 30 September 2022
Decision: dycip.com/t1473-19

A missing comma is a reminder of how easy it can be to fall foul of the added matter trap

The Board of Appeal also confirmed at 3.16.2 the established principle set out in Case Law of the Boards of Appeal, 10th edition 2022,II-A 6.3.1, third paragraph, that "A discrepancy between the claims and the description is not a valid reason to ignore the clear linguistic structure of a claim and to interpret it differently (T 431/03) or to give a different meaning to a claim feature which in itself imparts a clear credible technical teaching to the skilled reader (T 1018/02, T 1395/07, T 1456/14, T 2769/17)".

Conclusion

The Board of Appeal concluded that the skilled person would interpret claim 1 as granted, in the absence of any commas, as meaning that the **free inner bore** holds the capacitive data link (interpretation a).

The Board of Appeal indicated that this interpretation was "technically sensible and plausible" and that, contrary to the patentee's argument, the person skilled in the art would have no reason to depart from it for technical reasons, noting at 4.4 that:

- The fact that the contested claim feature as understood in accordance with interpretation a) is not disclosed in the description or drawings does not speak against this interpretation.
- Neither the description nor the drawings exclude the presence of a (further) capacitive data link positioned in accordance with interpretation a).
- There is no principle of claim interpretation according to which a claim should be interpreted in a manner which makes it compliant with Article 123(2) EPC.
- Contrary to the description and the drawings, the application as filed is not referred to in Article 69(1), second sentence, EPC either.
- The description and the drawings do not contain anything which makes interpretation a) appear technically nonsensical or incompatible with the claimed invention. The description does not contain a definition of the contested feature either.
- Mention, for example, of an embodiment which comprises a capacitive data link not arranged in accordance with interpretation a) is not a sufficient reason to apply interpretation b) instead of interpretation a).

The Board of Appeal thus found no reason to depart from the normal meaning of the description and so found the granted claims to comprise added matter.

The Board of Appeal also rejected the patentee's auxiliary requests for correction. Applying the same interpretation, the Board of Appeal found that the proposed corrections would unallowably extend the scope of protection, and found that the proposed corrections would not have been obvious to make, because the claim made technical sense. As a result, the Board of Appeal revoked the patent.

Further comments

First, it is interesting that the Board of Appeal rejected the argument that Art.84 EPC relates to claim interpretation, which is often used to justify a request for amendments to the description to be in-line with the allowed claims under GL: H-V 2.7. As such, this decision challenges other decisions that suggest that these amendments are justified by Art.84 EPC.

However, in this case, if the EPO had made such a request during prosecution, then this might have highlighted the inconsistency earlier, and so potentially avoided revocation of the patent.

Second, the Board of Appeal's reference at 4.4 to Art.69 EPC, not referring to the description and drawings **as filed**, is also of note.

This appears to underline that an amended description could lead to a different interpretation of the claims, and hence reinforces the need for caution when amending the description to avoid inadvertently adding matter.

Author:
James Cornford

Quantum computing
International patent insights

Useful link
EPO news release "Quantum computing technologies on the rise", 25 January 2023: dycip.com/epoquantum

Earlier in 2023, the European Patent Office (EPO) released a detailed analysis of trends in worldwide quantum computing patent filings. We look at the findings of this report and consider what this means for the future of quantum computing technologies in the patent world.

Volume of quantum computing patent filings

One of the key findings of the EPO's report is that the number of patent filings in the field of quantum computing is rapidly increasing worldwide. In the last ten years the number of filings per year relating to quantum computing technology has multiplied nearly twelve-fold, from approximately 500 patent families in 2011, to nearly 6000 patent families in 2021. The current rate of increase in filings in this area now far exceeds the average rate of increase in the number of patent filings for all technology areas, showing that quantum computing is one of the most active and fastest-growing technological areas in the patent world.

Beyond the pure number of filings, what is also interesting is where these applications are being filed and who is filing them. The EPO's data indicates a trend towards the filing of international Patent Cooperation Treaty (PCT) applications. This is an indicator of the relatively high potential commercialisation value attributed to patents in the quantum computing field, and a desire of applicants to obtain protection for their quantum computing inventions in multiple jurisdictions. The most active applicants in the quantum field are predominantly either large US or Japanese corporations, or US academic institutions. This shows that, while large corporations are unsurprisingly seeking to gain a foothold in this emerging technological area, academic research is likely to remain one of the driving forces behind quantum computing development and commercial exploitation.

Quantum computing sub-areas

The EPO's analysis includes insight into the various technological sub-areas of quantum computing and looks at the growth of these sub-areas relative to one another. The three main technological sub-areas considered are: physical realisations of quantum computing, error correction and mitigation, and the use of quantum computing in artificial intelligence (AI) and machine learning (ML) applications.

Physical realisation in quantum computing refers to the various platforms and technologies used to implement quantum systems, such as superconducting qubits, trapped ions, and topological qubits. These physical systems provide the foundation for building quantum computers, and enable researchers to test and develop quantum algorithms and applications. The EPO's analysis reveals not only that the total number of applications in this area is increasing sharply, but that the percentage of quantum computing patent applications related to physical realisation has witnessed a strong increase in the last decade, and is now at an all-time high.

Quantum computing related patent applications are low but rapidly on the rise

Error correction and mitigation in quantum computing are techniques used to combat the effects of noise and errors that arise due to the inherent fragility of quantum systems. These techniques involve redundantly encoding quantum information and employing various algorithms and protocols to correct or reduce errors. The report from the EPO indicates that this sub-area is experiencing similar growth to physical realisation (which is unsurprising given the extent to which these sub-areas are interrelated), with patent filings at an all-time high, having experienced consistent growth in the last decade.

Quantum computing in AI/ML refers to the manner in which quantum computing is used for or adapted to facilitate AI/ML models. A basic example is the parallelism of existing quantum computing systems being particularly suited to execution of existing AI/ML algorithms. However, this sub-field also includes direct adaptations of quantum computing technology for specific AI/ML algorithms. Examples include quantum generative adversarial networks (QGAN), quantum neural networks (QNN), and quantum reinforcement learning (QRL). Of the three sub-areas analysed, quantum computing in AI/ML showed the most significant increase in both total filings and percentage of total quantum computing filings. This trend is likely to continue given the recent explosion in interest in AI/ML, and quantum computing in general.

Conclusions

The EPO's report is an indicator that, although the number of patent applications in the area of quantum computing is still relatively small, the field is experiencing significant momentum and surpassing the average growth rate of patent applications in all other technological fields. Numbers are low but rapidly on the rise. This is unsurprising given the billions of dollars of investment in this area. However, with previously insignificant sub-areas such as quantum computing in AI/ML now rising to prominence, it remains to be seen exactly how the quantum computing patent landscape will look in the next decade.

Author:
Ben Hunter

And finally...

UP & UPC

UP & UPC resources
www.dyoung.com/upandupc

Our frequently updated UP & UPC resources, including articles, webinars and guides, are available on demand online at:

www.dyoung.com/upandupc

Webinars

- Introduction to the UP & UPC
- UPC opt out
- UP & UP - jurisdiction
- Unitary patent v European patent validation
- UPC: representation and judges
- UPC: structure, language and where to start a case

Guides

- Guide to the unitary patent (UP)
- Guide to the Unified Patent Court (UPC)
- UPC opt-out FAQs

Contributors

Partner, Patent Attorney
Neil Nachshen
njn@dyoung.com
www.dyoung.com/neilnachshen

Associate, Patent Attorney
David Al-Khalili
dak@dyoung.com
www.dyoung.com/davidal-khalili

Partner, Patent Attorney
James Cornford
jrc@dyoung.com
www.dyoung.com/jamescornford

Technical Assistant
Rosemary Elliot
rae@dyoung.com
www.dyoung.com/rosemaryelliot

Partner, Patent Attorney
Hanns-Juergen Grosse
hjg@dyoung.com
www.dyoung.com/hanns-juergengrosse

Associate, Patent Attorney
Ben Hunter
bmh@dyoung.com
www.dyoung.com/benhunter

Partner, Patent Attorney
Jonathan Jackson
jaj@dyoung.com
www.dyoung.com/jonathanjackson

Senior Associate, Patent Attorney
Arun Roy
axr@dyoung.com
www.dyoung.com/arunroy

Subscriptions

If you would like to receive our IP-related news and invitations to our webinars and events, please send your details to subscriptions@dyoung.com or visit our website: www.dyoung.com/subscriptions

Contact details

London
Munich
Southampton

T +44 (0)20 7269 8550
F +44 (0)20 7269 8555

mail@dyoung.com
www.dyoung.com