HOFFMANN EITLE

HOFFMANN EITLE QUARTERLY

September 2026

FRAND: The EPO Study on Rate-Setting and the Guidelines by the Munich Regional Court

In June 2026, the European Patent Office ("EPO") published its largest assessment of court decisions on FRAND terms and conditions.[1] Without advocating for one method over another, the study describes how courts worldwide have determined the license rate they consider fair and reasonable to license a portfolio of standard-essential patents ("SEPs"). Comparable licenses dominate, the top-down approach mostly serves as a cross-check, and patent counting remains the most contested input.

SEPs and the FRAND undertaking

Today's everyday technical gadgets rely on standardized technology. Smartphones are able to connect to any 5G network, laptops to any Wi-Fi router, and TVs are able to stream in 4K. This is possible because manufacturers build to a shared specification, which often incorporates patented inventions. A patent that cannot be avoided by anyone implementing the standard is standard-essential.

This creates tension. A patent gives its owner the right to exclude others, but a standard is meant to be used as widely as possible. Once an industry has committed to a standard, implementers cannot easily design around an essential patent, if at all, which hands the patent owner considerable leverage.

Generally, standards bodies (e.g. ETSI, IEEE-SA, and ITU) aim to address this tension by asking patent owners, before their technology goes into the standard, to undertake that they will license it on **f**air, **r**easonable and **n**on-**d**iscriminatory (FRAND) terms and by requiring the standard contributors to declare the patent (applications) they consider standard-essential. In exchange for having its technology adopted, the owner accepts these duties. What the undertaking deliberately does not do is set royalty rates and other license terms. These shall be agreed upon in a case by case manner, which keeps it flexible but also leaves ample room for disagreement. Most disputes settle, while some end up in court. It is those decisions the study collects and analyzes.

What the study looked at

65 decisions from seven jurisdictions have been reviewed and sorted into three groups. In 33 decisions, the court itself set a FRAND rate; in 19, it assessed whether a rate or offer already on the table was FRAND; and 13 rulings concerned whether a particular valuation method may be used at all, those being mostly U.S. decisions on the admissibility of expert evidence (so-called *Daubert motions*).[2]

The geography has shifted over time. The US and Japan led early rate-setting; over the past decade China, the UK and, more recently, India have become the leading venues. FRAND assessments, by contrast, cluster in the EU, and especially in Germany, where they typically arise as a defense to an injunction claim under EU competition law; the Unified Patent Court has now joined those venues.

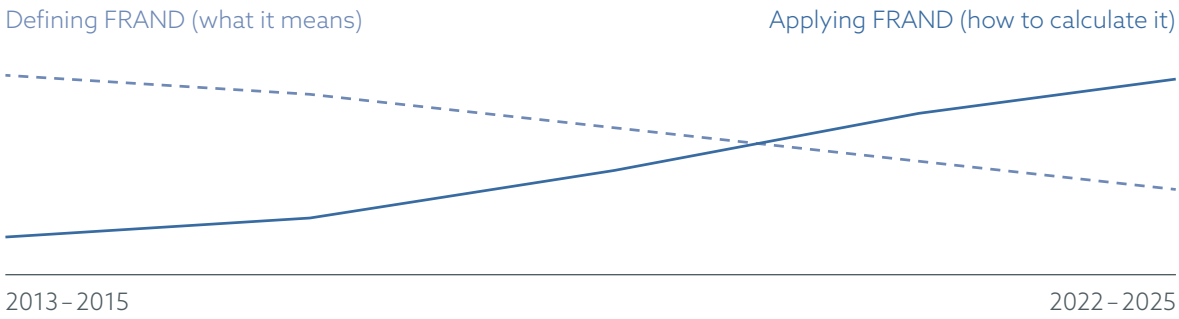
The center of gravity has also moved. From 2013 to 2015, courts were mostly defining FRAND in the abstract. Since roughly 2022 they have mostly been applying it through concrete valuation exercises. The question is no longer *what FRAND means*, but *how to calculate it*.

[1] European Patent Office, Methodologies for FRAND Determination: *Evidence from Global Case Law* (EPO, 2026), prepared with BRELA. Available at https://www.epo.org/frand-study. DOI: https://doi.org/10.65216/20260624-0001. The commitment is sometimes called RAND ("reasonable and non-discriminatory"), particularly in the United States; the two terms are generally treated as interchangeable.

[2] A Daubert motion is a request in US litigation to exclude expert testimony a party regards as unreliable before it reaches the jury; the trial judge acts as a gatekeeper for the soundness of the expert's method. See *Daubert v. Merrell Dow Pharmaceuticals*, 509 US 579 (1993); Federal Rule of Evidence 702, https://www.law.cornell.edu/rules/fre/rule_702

From defining FRAND to applying it

Focus of judicial methodological discussion over time (schematic)



Schematic representation of a qualitative trend. Source: EPO, Methodologies for FRAND Determination (2026).

A shared purpose, different legal routes

The study finds that, despite having different legal systems, courts articulate the same underlying objective in materially similar terms: FRAND must allow a fair reward for the patent owner while keeping the standard broadly accessible to implementers.[3]

However there are also differences in the approach. US courts frame the exercise as a hypothetical negotiation between a willing licensor and a willing licensee; UK courts use an analytically equivalent test.

And courts in the UK, US and Germany have each rejected the argument that the non-discriminatory (ND) aspect of FRAND entitles every licensee to the lowest rate the patent owner has ever granted.

The clear favorite

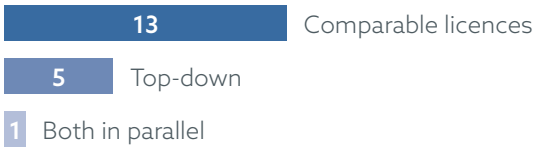
When it comes to determining a rate, two methods dominate.

The comparable licenses approach starts from one or more agreements concluded between similarly situated parties, one of them usually the prospective licensor or licensee in the present conflict. The rationale is that market forces determined an appropriate price. It is the primary and preferred method in the majority of cases the study has found.[4]

In contrast, the top-down approach first estimates an aggregate royalty rate (ARR) for all SEPs reading on a standard, then apportions a share of that total to the portfolio in dispute, usually according to the patentee's share of SEPs. It is more often used as a method of cross-checking the result of the comparable licenses. However, US and Chinese courts have been more willing to treat it as a standalone method. UK and German courts give it a more supporting role.

Primary method in FRAND rate determinations

19 decisions in which a primary method could be identified



Source: EPO, Methodologies for FRAND Determination (2026). One decision applied both methods in parallel (Oppo v. Nokia).

Other approaches have been discussed in the literature, such as bottom-up cost models, but courts have not found them convincing and have at times rejected them outright.

[3] The study cites, among others, *Huawei v. ZTE* (CJEU, C-170/13); *Unwired Planet v. Huawei and InterDigital v. Lenovo* (UK); *Microsoft v. Motorola* (US); *Huawei v. InterDigital* (China); and *Ericsson v. Lava* (India).

[4] In 13 of the 19 decisions for which a primary method could be classified, comparable licences were the primary method; the top-down approach was primary in five, and both were applied in parallel in one (*Oppo v. Nokia*).

Where the difficulty lies

Neither method is mechanical, and the study is candid about the friction points.

For comparable licenses, courts are typically offered more agreements as reference than they accept, ranging from 2 to 54 licenses. Not every license is comparable, though, so the courts generally approach this in three steps. First, they ask whether the proposed and the referenced licenses are really similar in technology, parties, scope and timing, and whether the referenced licenses are themselves free of distortion. Then, unpacking is often necessary because license agreements may contain additional components, such as lump-sum payments, cross-licenses, or portfolio-wide coverage, which must be stripped out. Lastly, the courts must infer or reconstruct a rate for the proposed license, which may involve different portfolios, different geographical scope or other relevant factors.

For the top-down approach, both the estimated aggregate royalty rate (ARR) and licensor's share in the relevant SEPs are generally contested. On the ARR, the study makes a striking observation: benchmarks recur across jurisdictions, roughly 5% for 3G and 6% to 10% for 4G. However, much of this stability comes from courts citing earlier decisions, without re-evaluating the figure.[5] The apparent consistency found regarding ARR may be less robust than it appears. The apportionment step is even more contested, because it depends on how to count patents.

The patent-counting problem

Counting essential patents sounds objective, which is why courts reach for it. However, courts also repeatedly caution that the approach requires more than a mere patent counting and dividing. Declared-essential patents are not all truly essential or valid. The relationship between declared and truly essential is not a fixed ratio; it may vary with how boldly the patentee declares and how sound the patenting practice is. Courts diverge on how to treat pending applications and expired patents, and there is no agreed way to account for the possibility that some patents are invalid. Value indicators such as forward citations or patent-family size have been explored, but none has been accepted as a general measure of a patent's worth.

This is the study's most forward-looking theme: patent counts are used because they are objective and manageable, not because courts regard them as fully satisfactory. And, in the EPO's view, better data could help close the information gap. This fits the wider aim of the EPO's Patents and Standards program, which sits alongside its earlier standards study and the Patents Standard Explorer tool.[6]

What this means for patentees and implementers

The study does not answer the question of what a FRAND rate should be, and it takes no position on which method is preferable. Its value is descriptive: it shows negotiators, litigants and courts what the global body of decisions actually holds, where methods have converged, and which inputs remain genuinely open. Two practical points follow for anyone negotiating or litigating an SEP license:

- **Comparable licenses are where cases are won or lost.** Courts across jurisdictions treat real agreements as the primary evidence of a FRAND rate, so the quality, recency and comparability of a party's license portfolio matter more than any abstract valuation model.
- **The open questions are the leverage.** The points the study flags as unsettled, i.e. comparable-license selection and unpacking, the aggregate rate, and above all patent counting, are exactly where the parties' arguments do the most work. Knowing which inputs the case law has not fixed is as valuable as knowing which it has.

[5] The 5% figure for 3G traces in part to the IP High Court of Japan's decision in *Samsung v. Apple*, which later courts repeatedly referenced.

[6] See EPO, *Standards and the European patent system* available at https://www.epo.org/en/news-events/news/technology-standards-and-patents-europes-digital-future and the Patents Standard Explorer available at https://www.epo.org/en/about-us/observatory-patents-and-technology/policy-and-funding/patents-and-standards/patent-standards-explorer.

A postscript: what came next

After the study's cut-off date in March 2026 the FRAND discussion did not stop. On 13 August 2026 the 7th Civil Panel of the Munich I Regional Court published comprehensive FRAND guidelines that answer, for their own courtroom, several of the questions the study leaves open.[7] We note for transparency that Hoffmann Eitle acted as legal counsel in two of the main cases (*Asus I and Asus II*) which laid the groundwork for these guidelines. The panel commits to reviewing the patent owner's offer on the merits, treating comparable licenses as the primary evidence and using the top-down approach for cross-checking. Generally, the court will not appoint a court expert based on the view that the reasonable rate is a question of law, not one for expert evidence. The direction of travel seems to be that (another) leading European venue is eager to set the FRAND rate itself.

Laurin Kappei

LL.M. (Stockholm)

Attorney-at-Law | UPC Representative

HE Patent Litigation & Contracts practice group

Clemens Tobias Steins

Dr. jur., LL.M.

Partner | Attorney-at-Law | UPC Representative

HE Patent Litigation & Contracts practice group

[7] Munich I Regional Court, 7th Civil Panel, FRAND Guidelines of 13 August 2026, consolidating *ASUS I* (7 O 5007/25), *ASUS II* (7 O 4102/25), *Renault* (7 O 7655/25) and *ZTE/Samsung* (7 O 64/25). The guidelines postdate the study's March 2026 cut-off and are, by their own terms, non-binding guidance rather than rules of procedure.

Patenting AI in the MedTech Field from a U.S. and European Perspective

Artificial intelligence (AI) is increasingly embedded in medical technology — from cardiac monitoring and diagnostic imaging to clinical decision support and software that analyzes patient data. For companies developing these technologies, both U.S. and European patent law offer meaningful protection; however, AI-enabled medical inventions may be subject to more rigorous examination. The article discusses the challenges in patenting such AI inventions in the U.S. and Europe.

1. Patenting AI medical inventions in the U.S.

In the U.S., AI-enabled medical inventions can face heightened scrutiny under the patent-eligibility requirements of 35 U.S.C. § 101. A useful starting point is the distinction between **Software in a Medical Device (SiMD)** and **Software as a Medical Device (SaMD)**. The Food and Drug Administration (FDA) generally describes SiMD as software embedded within a medical device, while SaMD performs a medical purpose without being part of a hardware medical device. This distinction can also be relevant to patent strategy. AI implemented within specialized medical hardware often presents a stronger eligibility position because claims can be tied to a "particular machine," whereas stand-alone software focused primarily on analyzing information may be more vulnerable to characterization as an abstract idea.

Accordingly, one important strategy for patenting AI-enabled MedTech is to claim the technology in the context of the **specific medical device or system with which the AI operates**. Examples might include AI incorporated into cardiac monitors, infusion pumps, imaging systems, wearable sensors, catheter navigation systems, or other specialized equipment. Courts have been more receptive to claims directed to concrete technological implementations rather than broad, disembodied data collection or processing.

Hardware, however, is not the only route to eligibility. Another — and increasingly important — strategy is to identify and describe a **specific technological improvement** produced by the AI. *In CardioNet, LLC v. InfoBionic, Inc.*, the Federal Circuit upheld claims involving cardiac-monitoring technology because the claimed system used particular processing techniques to improve the detection of atrial fibrillation and atrial flutter. Case No. 2019-1149 (Fed. Cir. Apr. 17, 2020). The court focused on the specification's explanation of how the technology improved cardiac monitoring rather than merely automating a conventional diagnostic activity.

The contrast with another *CardioNet* decision[8] is instructive. There, claims involving filtering cardiac data were held patent-ineligible where the claimed components were conventional and the asserted innovation ultimately amounted to mathematical data filtering performed using general-purpose computing equipment. Critically, the specification did not establish a specific improvement in computer or medical-device functionality sufficient to distinguish the claims from abstract data processing.

These decisions provide an important lesson for AI-based MedTech. Simply applying an AI algorithm to medical data may not be enough. Patent applications should explain **how the AI changes or improves the operation of the medical technology** — for example, by improving diagnostic accuracy, reducing false positives, increasing measurement reliability, improving image reconstruction, controlling treatment more effectively, or enabling a technical capability that conventional systems could not provide.

The drafting strategy should follow the technology. Where possible, claims should connect AI functionality to specialized medical components, sensors, processors, or treatment systems and recite the technical steps by which the improvement is achieved.

[8] *Cardionet, LLC v. Infobionic, Inc.*, Case No. 2020-2123 (Fed. Cir. Oct. 29, 2021).

The specification should likewise document the technological problem, shortcomings of existing approaches, and the concrete technical improvement provided by the invention.

For AI innovators in MedTech in the U.S., the central patenting lesson is therefore straightforward: **do not claim merely what the AI determines; claim how the technology achieves that result and how doing so improves the medical system itself**. That approach can provide both stronger patent-eligibility arguments and more commercially meaningful protection.

2. Patenting AI medical inventions in Europe

Although the European Patent Office (EPO) considers AI and machine learning to be of an abstract mathematical nature, the EPO acknowledges that such inventions are not excluded from patentability if, instead of the AI or machine learning per se, a method involving the use of technical means (such as a computer) or a device is claimed. In such cases, the EPO applies the so-called COMVIK approach to assess the inventive character of the invention. Following the COMVIK approach, the AI and machine learning features themselves are considered when assessing inventive step over the prior art, but only if they **contribute to a technical solution to a technical problem**, for example by being applied in a field of technology and/or by being adapted to a specific technical implementation.

Therefore, when drafting patent applications for AI-based inventions, it is important to keep the following questions in mind: **What is the technical problem that is to be solved and how do the AI features contribute to the technical solution?** This should be made clear in the patent application. For example, the EPO acknowledges that using a neural network in a heart monitoring apparatus to identify irregular heartbeats makes a technical contribution.[9] However, if a neural network is used to merely solve an administrative or business problem, without being adapted to a specific technical implementation, the features concerning the neural network will be ignored by the EPO when assessing inventive step. It is therefore of utmost importance to make clear that the invention solves a technical problem rather than an administrative or business one.

Often, in medical inventions, the output of an AI model is a set of numerical values which may be used to assess the health status of a patient, recommend therapeutic measures, etc. Whether the EPO acknowledges a technical contribution then depends largely on how that data is further used. Merely displaying the data to a physician, for example, is often not enough, because this may also encompass non-technical uses of the data, such as gaining scientific knowledge, making "subjective" decisions by the physician, and the like. It is therefore highly recommended to specify how the output data is used to achieve a technical effect related to a technical purpose, preferably **without requiring human decision-making**.[10]

To further increase the chances of obtaining a patent in the field of AI, the technical effect should not merely be asserted. Rather, the technical effect achieved by an AI algorithm should be readily apparent or established by explanations, mathematical proof, experimental data or the like. However, comprehensive proof is also not required. If the technical effect depends on specific characteristics of the training dataset used, the characteristics necessary to reproduce the technical effect must be disclosed, unless the skilled person can determine them without undue burden using common general knowledge. In general, there is no need to disclose the specific training dataset itself.[11]

The recent Board of Appeal decision T 48/24,[12] though decided outside the MedTech field, offers some guidance on what a patent application must disclose to meet the EPO's sufficiency requirements for AI inventions. As indicated in T 48/24, "the implementation of a suitable machine learning model, its training, and whether the trained model can successfully estimate the specific output based on the input parameters as

[9] See EPO Guidelines for Examination, G-II, 3.3.1: https://www.epo.org/en/legal/guidelines-epc/2026/g_ii_3_3_1.html

[10] Article 53(c) EPC excludes from patentability methods for treatment of the human or animal body by surgery or therapy and diagnostic methods practiced on the human or animal body (i.e., those ending in a diagnosis). This exclusion applies regardless of the technical character and COMVIK analysis. Claims to medical devices, computer programs and storage media comprising corresponding subject-matter are not objectionable under Article 53(c), because only method claims fall under that exception. On the limits of that exception, see for example EPO Guidelines for Examination, G-II, 4.2.1, and on diagnostic methods in particular G-II, 4.2.1.3 and G 1/04.

[11] See EPO Guidelines for Examination, G-II, 3.3.1.

[12] See EPO Boards of Appeal decision T 48/24 (Estimating waste composition/EBARA) of November 13, 2025: https://www.epo.org/en/boards-of-appeal/decisions/t240048eu1

claimed may be important aspects of sufficiency of disclosure of machine learning inventions".[13] A concrete, reproducible example of implementation of the machine learning invention in the patent application is not an absolute requirement for sufficient disclosure but may help to demonstrate that the invention is workable at all and may serve as a reference to better understand the invention.[14] The required level of detail, however, is case-specific. As stated in T 48/24, "the level of detail with which each relevant aspect of a machine learning invention must be disclosed in a patent cannot be specified in general terms, independently of the individual case".[15]

In summary, the key takeaways for patenting AI inventions in the MedTech field are: **describe the technical problem the invention solves; explain how the AI contributes to solving it; make it credible that the technical effect is achieved; and describe the AI model sufficiently, including the AI engine and the training data used**. This increases the chances of obtaining a grant at the EPO and strengthens the position of MedTech companies in Europe as well.

3. Conclusion

- For stronger patent-eligibility arguments in the U.S.: do not claim merely what the AI determines; claim how the technology achieves that result and how doing so improves the medical system itself.
- To strengthen your case before the EPO: describe the technical problem the invention solves and provide sufficient disclosure of how the AI algorithm contributes to solving the technical problem.

Stephanie Rupp

M.Sc. (Electrical Engineering)

German and European Patent Attorney | UPC Representative

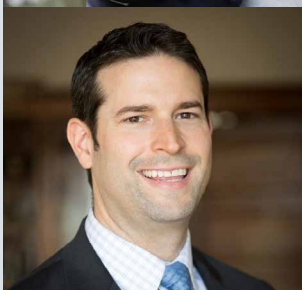
HE Electrical Engineering & Digital Technologies practice group

Ryan N. Phelan

B.S. (Computer Science), J.D. (Northwestern University School of Law), MBA

Guest author

Partner, Marshall, Gerstein & Borun LLP



[13] See item 2.3 in T 48/24.
[14] See item 3.1 in T 48/24.
[15] See item 4 in T 48/24.

DOE Next Level: LD Düsseldorf Adopts the Dutch Four-Step Test!

To date, the UPC Court of Appeal (CoA) has provided guidance on various topics at the validity and interpretation level but has not had the chance to adopt any doctrine-of-equivalents (DOE) framework.

Recently, the Local Division (LD) Düsseldorf in its May 2026 decision *Wonderland v. Cybex* (UPC_CFI_807/2024 and UPC_CFI_334/2025[16]) declined to apply the *Schneidmesser* approach developed by the German Federal Supreme Court (FSC) and instead relied on the DOE approach applied by the LD The Hague, which is based on the Dutch doctrine of equivalents (UPC_CFI_239/2023, decision of 22 November 2024, para. 88 – *Plant-e v. Arkyne*[17] and UPC_CFI_479/2025, order of 11 September 2025, p. 23 et seq. – *Washtower v. BEGA*[18]).

Other first instance UPC infringement decisions with DOE exposure explicitly avoided taking a conceptual position pending a decision of the CoA, disposing of the cases by denying equal function/effect of the variant – a test more or less common to all approaches.

To recall: In *Plant-e v. Arkyne*, the LD The Hague adopted a four-step test closely in line with the approach developed by the Dutch courts:

1) **Technical equivalence:** Does the variant solve (essentially) the same problem that the patented invention solves and perform (essentially) the same function in this context?
2) **Fair protection for patentee:** Is extending the protection of the claim to the equivalent proportionate to a fair protection for the patentee? This needs to be assessed in view of the patentee's contribution to the art and taking into account the question whether it is obvious to the skilled person from the patent publication how to apply the equivalent element (at the time of infringement).
3) **Legal certainty:** Does the skilled person understand from the patent that the invention's scope is broader than what was claimed literally?
4) **Prior-art limitation:** Is the allegedly infringing embodiment novel and inventive over the prior art?

The Dutch second question is the only approach in Europe that explicitly assesses fair protection, and it is attractive because it resembles the Protocol on the Interpretation of Art. 69 EPC quite closely:

> *"Article 1 [...] it is to be interpreted as defining a position between these extremes which **combines a fair protection for the patent proprietor** with a reasonable **degree of legal certainty for third parties.**"*

The LD Düsseldorf pointed out that its adoption of the Dutch approach would not affect the outcome. While this may have been the case here, this certainly cannot be generalized.

The first and second questions

For comparison of the differences in some national approaches as to the first two questions we provide the wording of four relevant jurisdictions:

First question comparison:

NL/UPC: Technical equivalence: Does the variant solve (essentially) the same problem that the patented invention solves and perform (essentially) the same **function** in this context?

DE: Do the exchange means solve the problem of the invention with an objectively same effect?

UK: Does the variant **achieve substantially the same result** in **substantially the same way** as the invention, i.e. the **inventive concept** revealed by the patent?

[16] Düsseldorf Local Division, Decision of the Court of First Instance of the UPC dated 27 May 2026, UPC_CFI_807/2024, UPC_CFI_334/2025.
[17] See also discussion in T. Becher, "DOE at the UPC", *Hoffmann Eitle Quarterly*, December 2024, pp. 10-13.
[18] In *Washtower*, the parties had agreed on applying the Dutch doctrine of equivalents.

Switzerland: Does the modified feature perform the same function as the feature specified in the patent claim?

For practitioners who have been dealing with equivalence law for many years the degree of harmonization that has been achieved is quite impressive at first glance. What remains unclear is how the terms **function** and **result/effect** in the first question ("*Gleichwirkung*" (DE); "same result in the same way" (UK), "same function" (NL/UPC)) are to be understood and how they relate to the well distinguished US terms (also applied in various European jurisdictions) "function-way-result".

Second question comparison:

NL/UPC: Is extending the protection of the claim to the equivalent proportionate to a **fair protection** for the patentee? This needs to be assessed in view of the patentee's contribution to the art and taking into account the question whether it is **obvious** to the skilled person from the patent publication **how to apply** the equivalent element (**at the time of infringement**).

DE: Was the skilled person able to identify/discover **the exchange means** as having the **same effect**, based on its technical knowledge? This is usually assessed at the **priority date** and it is to be assessed in light of the patent disclosure.

UK: Would it be **obvious** to the person skilled in the art, reading the patent at the priority date, but **knowing that the variant achieves substantially the same result** as the invention, that it does so in **substantially the same way as the invention**?

Switzerland: Obviousness of the modified feature: Would the skilled person have recognised the modified feature as having the **same effect**?

Here again we have come a long way in Europe since the *Kirin-Amgen v. Hoechst decision* ([2004] UKHL 46) had more or less ended equivalence in the UK and *Actavis v. Eli Lilly* ([2017] UKSC 48) reestablished the assessment. Nevertheless, the remaining differences should not be ignored, as they can and will in certain cases lead to different outcomes.

Further, the relevant date for assessing obviousness will very often have a significant impact on the outcome in practice in fast developing technologies. For European jurisdictions that only ask for obviousness of the function or way, and not of the means or variant (e.g., UK and Switzerland) the reference date question is not as critical as under the strict obviousness approach of the German FSC: According to German practice **the equivalent means themselves** must have been obvious **at the priority date** under an inventive step test (even though the *Schneidmesser* wording – als *gleichwirkend auffindbar* – could also be read on obviousness of the effect).

Under the developing UPC approach, according to the LD The Hague and the LD Düsseldorf, it is sufficient that ***how to apply*** the equivalent means is obvious **at the time of infringement**. Technical knowledge acquired after the priority date can therefore support obviousness under this test.

For the second question under the German test, the outcome may be different based on either of the two differences: the relevant date and the assessed subject matter. Under the Dutch/present UPC/UK/Swiss approach the technical development may have and often will have led to a different knowledge basis at the time of infringement. The UK approach additionally asks whether the exchange means work the same way (*UK way/result component*), knowing that the exchange means achieve the same result. The present Swiss approach also assumes knowledge of the exchange means and asks whether the skilled person would recognize that they have the same effect (*CH*). All this combines with different outcomes depending on whether the focus is on the exchange means or on the variant.

The third question

For the third question we will limit our comments to the observation that the UPC, NL, UK and Swiss third question contains the term **legal certainty** as an explicit statement, while the German third question is applied in the same way but its wording requires an understanding of the underlying case law to get there, i.e., cannot be fully assessed in its practical function from the wording of the question itself.

Ultimately, the present German case law amounts to a legal certainty test and the resulting case categories find themselves in the other jurisdictions as well. It would thus make sense regarding the third question for the CoA to rely on the LD The Hague/Dutch wording as the LD Düsseldorf has done.

The fourth question

The fourth question provokes a more procedural but equally relevant comment: Under the German doctrine, *Formstein* operates as a defense raised by the Defendant (the *Formstein* objection). The Defendant bears the burden of substantiating why equivalence must be limited. The Dutch approach includes *Formstein* as fourth item into the group of questions. Given that the Claimant must explicitly make a request for equivalent infringement and further given the front-loaded UPC proceedings, that may be understood to require the Claimant to provide – at least under the intrinsic prior art mentioned in the patent in suit (and/or mentioned in prosecution) – substantiation why the patent should not be limited by *Formstein*.

Where the four-step test leaves questions open

The four-step test is promising, but needs further clarification by the CoA:

- **Meaning of terms:** Are the terms '***function***', '***effect***' and '***result***' in the first question interchangeable or is there a difference in their meaning? Note that *function* is well distinguished from the *result* in the *function-way-result* doctrine and *result* seems closer to *effect*. However, in many decisions function and effect are used interchangeably.
- **Second question:** (a) What precisely must be obvious? – Is it the exchange means themselves, or the variant, or the function of either or of both, the effect or way, with or without assuming knowledge of the exchange means? (b) Should the distance of the exchange means exclude equivalence in a binary fashion when it amounts to inventiveness (as in Germany) or should it be weighed against the contribution as in the LD's Dutch approaches? Should the second question include way elements from the US function-way-result components, as in the UK?
- **Relevant date:** Is obviousness to be assessed at the time of infringement or at the priority date?
- **Standard under the third question:** Must the patent contain positive elements for the skilled person to understand the invention as broader than the literal meaning or just not any negative elements (e.g., disclosed but not claimed)?

On balance, the Dutch four-step test is doctrinally attractive and could be a success story upon further specification of some aspects by the CoA. The UPC Court of Appeal may provide such specification or an overall different approach for Europe's new age of DOE soon.

Jonas Smeets

LL.M. (Illinois Institute of Technology – Chicago-Kent College of Law)

Partner | Attorney-at-Law | UPC Representative

HE Patent Litigation & Contracts practice group

Gregor König

Diploma in Biology

Partner | German and European Patent Attorney | UPC Representative

HE Biotechnology practice group

Referral on Claim Interpretation in G 1/26: Can Losing Weight Add Matter?

It is not long since the Enlarged Board of Appeal (EBA) issued the landmark decision G 1/24[19] on the issue of claim interpretation. Already in this time, a divergence has arisen between the Boards on how exactly to implement this decision. Contentious points include its applicability in assessing added matter,[20] and on the more fundamental question of when features in the description can be read into the claims. In recently issued G 1/25[21] on adaptation of the description, the EBA provided significant extra guidance on claim interpretation, already seeming to deal with several of the questions in G 1/26.

Factual situation underlying the referral G 1/26

In T 873/24, the Board was confronted with a scenario in which the outcome depended on these points. The patent claim included the feature "*wherein **the ratio** of titanium to nitrogen is in excess of 3.42*". It is **not** specified in the claim whether this ratio is based on the weight or e.g. the molar ratio. Critically, the application as filed used only the **weight** ratio.

Opponent objected that this amendment adds matter: patentee defended themselves by arguing that the patent claim feature would be interpreted as relating to the weight in view of the disclosure in the description of the patent: "*In the composition by weight of the sheet, the **weight ratio** of titanium content with respect to the nitrogen content is in excess of 3.42...*".

Therefore, the case turns on whether the patent claim should be interpreted based on the description such that the weight ratio is defined. If it is, there would be no added matter. If however the description cannot be relied upon, it seems that the claim may well add matter as it generalises the ratio of in excess of 3.42 from a weight ratio to any ratio.

Legal approaches to assessing added matter

The Board then explained that EPO decisions on added matter normally follow a "two-step approach": claim interpretation taking into account the description followed by assessment of whether the interpretation of the amended claim contained added subject-matter. While the Board noted that some decisions expressly question the applicability of G 1/24 to added matter (see e.g. T 405/24[22]), the main divergence is in the extent to which the description is relied upon when interpreting the claims. Three different lines of case law were identified:

First approach: the description is "consulted" as required by G 1/24, only to define the technical field, common general knowledge and skilled person. "*All claim interpretations, in particular broader ones, are then taken into account, except for interpretations that are illogical or make no technical sense*". This approach was adopted, for example, in T 837/24.

Second approach: no broadening or limitation of claims based on the patent specification is allowed. While these decisions still "consult" the description as required by G 1/24, they then proceeded to ignore it

[19] See Adam Lacy, Thorsten Bausch, "Short and sweet: G 1/24", *Kluwer Patent Blog*, June 18, 2025.

[20] See Adam Lacy, Nicolas Douxchamps, "Impact of G 1/24 on the Assessment of Added Matter at the EPO", *Hoffmann Eitle Quarterly*, December 2025, pp. 6-8.

[21] For a discussion of G 1/25, see Adam Lacy, Thorsten Bausch, "G 1/25: two decisions for the price of one?", *Kluwer Patent Blog*, September 3, 2026.

[22] See A. Lacy, N. Douxchamps, "Impact of G 1/24 on the Assessment of Added Matter at the EPO", Hoffmann Eitle Quarterly, op. cit.

when actually interpreting the claims, e.g. on the basis of the primacy of the claims. See e.g. T 2001/23.

Third approach: the cases used a holistic approach permitting broadening and/or narrowing of the interpretation of the claims in view of the patent specification. It is the author's view that this comes closest to what many practitioners expected to be the application of G 1/24, where "*Claim interpretation is accordingly seen as the result of both reading the claims and consulting the description and drawings as a unitary process*". See e.g. T 2048/22.[23]

Given the divergence in the case law and the fact that added matter will be found based on the first or second approaches but not the third, the following questions were referred to the Enlarged Board:

First the Board asked whether it is generally excluded that features in the description or drawings are read into the claims:

> *2.(a) Does the fact that the claims are the starting point and the basis for assessing the patentability of an invention generally preclude a feature which is only disclosed in the description or the drawings of a patent from being read into the meaning of a granted claim, in particular if this leads to a restrictive reading of terms used in the claim?*

It seems that the answer to this question should be "no" based on reason 10 of G 1/25: "*... a person skilled in the art reading the claim in the context of the description and drawings will try to take a definition found in the description at face value. As long as the definition is technically reasonable and complies with the overall teaching of the claims, description and drawings, the skilled person will read terms in the claim in the sense of the definition, taking into account both the broadening and limiting aspects*".

Assuming the answer to 2(a) is "no", the Board probed whether claim interpretation is based on reading the claims and description and drawings together in a single process. At the same time it asked whether interpretations based on the description and drawings are only excluded if they are contrary to the common general knowledge meaning of the claim itself.

> *2.(b) If the answer to question 2.(a) is no: is claim interpretation the result of both reading the claims and consulting the description and drawings as a unitary process and does the claim being the starting point and the basis for assessing the patentability rule out only those interpretations which can be derived from the patent as a whole but would clearly contradict the general technical understanding of the terms used in the claim?*

For the first part of this question, the unitary process seems to be endorsed by reasons 7 – 9 of G 1/25: "*G 1/24 is not to be understood as establishing a sequential method under which the claim wording is first construed in isolation and the description and drawings are consulted only at a later stage if uncertainty remains*". *Claim interpretation means "determining the meaning of the claim wording from the perspective of the skilled person based on the claims, the description and any drawings taken together*". This gives a much more prominent role to the description and drawings than many boards had been willing to permit, and moves the EPO closer to national courts and the UPC on this point.

As for the second part, reason 10 of G 1/25 suggests that the answer again should be "yes": interpretations from the description and drawings can generally be relied upon but "*cannot be used to impose on the claim a limitation or expansion for which the claim wording provides no basis*". That said the term "only" in the referred question would suggest that there are no other situations in which claim interpretations based on the description and drawings are excluded. This would seem to overlook e.g. arguments based on the file history, or the common situation that the repercussive effect of later dependent claims influences the reading of the independent claims.

In a separate line of questions, the Board asked whether added matter is assessed after interpreting the claims to arrive at a single meaning, or whether multiple possible interpretations should each individually be assessed, with the claim being found to add matter if one of these adds matter.

[23] T 2048/22 is discussed in A. Lacy, N. Douxchamps, "Impact of G 1/24 on the Assessment of Added Matter at the EPO", Hoffmann Eitle Quarterly, op. cit.

> *3.(a) When assessing compliance with Article 123(2) EPC, must a term used in a claim be assessed against all interpretations that make technical sense to the skilled reader on the basis of the claim alone?*

In view of G 1/25, the answer is likely "no" in view of the unitary process above, and the fact that this is the general principle of claim interpretation applied by the boards of appeal, i.e. also for assessing added matter (Reason 11).

Finally, the Board asked whether, if added matter is assessed after interpreting the claims to arrive at a single meaning, the interpretation is based on the claims, description and drawings.

> *3.(b) If the answer to question 3.(a) is no: is it sufficient that only the interpretations of the subject-matter of the claim established against the background of the patent specification as a whole are directly and unambiguously derivable from the application as filed?*

It seems that the answer is "yes" based on G 1/25 discussed above.

On question 1

Decision T 873/24 also addressed in question 1 a formal issue regarding the point at which a referral to the EBA should be made. In short, the Board asked whether all other issues need to be decided on before making a referral, so that the decision only turns on the referred question.

> *1. May a decision be considered to be "required" for the purposes of Article 112(1) EPC, if the referring Board demonstrates that the point of law in question arises out of the context of the case pending before it and, in the circumstances of the proceedings, it is reasonable for the Board to examine it and decide on it next?*

Some decisions such as T 116/18 leading to G 2/21 only issue a referral once all issues in the case have been decided upon, meaning that the case turns entirely on the referral questions. Others, such as the present case and T 439/22 leading to G 1/24, take a more relaxed approach, referring the key issue before exhaustively deciding on all other points.

While this is a relatively dry legal issue, it is the author's view that it is worthwhile to adopt a more liberal approach. This would allow Boards more flexibility to refer an issue whenever they consider it relevant to ensure uniform application of the law, rather than having to wait for the perfect case which really turned on this issue. In any case, this would seem more in line with the wording of Article 112(1) EPC, which permits a referral if this is considered required to ensure uniform application of the law, or if a point of law of fundamental importance arises.

Conclusion

Before reading the decision, the author assumed that it would centre on whether G 1/24 applies to added matter at the EPO. This was wrong – the scope of the referral is much broader and seeks general clarification on how claims are to be interpreted at the EPO. This is something that G 1/24 already sought to address. At the time of the referral, further clarification was desirable at least in view of the rapid divergence between the Boards on whether G 1/24's Order that the "*description and drawings shall always be consulted to interpret the claims*" really only means that they need to look at the description before ignoring even definitions. That said, these issues now seem to have been largely settled by G 1/25, so at this stage it is unclear whether G 1/26 will add much to the discussion on claim interpretation.

Adam Lacy

D.Phil., M.Chem.

Partner | British and European Patent Attorney | UPC Representative

HE Chemistry practice group

UPC Substantive Law – Comparisons With EPO and National Courts

This article is a continuation of a series in the ***Hoffmann Eitle Quarterly***, in which we compare substantive law at the UPC with that of the EPO and national courts. More details can be found in the News section of the Hoffmann Eitle website, which is regularly updated.

UPC Court of Appeal confirms alignment with EPO on mixed-type and computer-implemented inventions

In Abbott v Sinocare, UPC_CoA_901/2025 (17 April 2026), the Court of Appeal considered provisional measures in a dispute concerning glucose monitoring and user interface features. The key substantive issues were whether event data icons in a trend graph fell within the claimed timeline graph, and whether the patent was more likely than not valid in view of added-matter and inventive-step attacks directed in particular to the user interface features of the claims. The decision provides useful guidance on when allegedly non-technical features must be considered for inventive step, particularly for presentations of information. In this case, the Court rejected the argument that the user interface features should be disregarded merely because they could be characterised as non-technical or as a presentation of information. Relying on EPO case law including T 641/00 (COMVIK) and G 1/19, the Court held that a claim feature is not excluded from inventive-step assessment simply because, in isolation, it might fall under Art. 52(2) EPC. Non-technical features may contribute to the technical character of the claimed invention through their interaction with other claim features, so that the interrelationship and functioning of the claim features must be assessed together (r. 112).

Applying that approach, the Court found that converting user-entered events into event data icons, displaying them on a timeline graph with monitored glucose levels, and allowing selection of the icons to obtain event details were technical measures producing the technical effect of improved assistance in diabetes control. The fact that the user ultimately decides how to act on the information did not deprive the features of technical character (r. 113-114).

The Court also addressed a procedural point with parallels to EPO appeal practice. The Respondents' cross-appeal on urgency was inadmissible because they sought only to challenge reasoning while retaining a favourable operative result. Under R. 220.1 and 237 RoP, only a party adversely affected may appeal or cross-appeal (r. 208-209). This is consistent with EPO Boards of Appeal practice, where an appeal cannot be used merely to amend reasons rather than the decision itself (see T 84/02, R 13/22, and EPO Case Law Book, V.A.2.4.2.a).

To sum up, the UPC appears closely aligned with EPO practice for mixed-type and computer-implemented inventions. User interfaces and information-presentation features should not be dismissed at the outset. If functionally integrated into a technical system and producing a technical effect, they may support inventive step.

UPC on sufficiency: the skilled person must be taught how, not just what

In its decision in UPC_CFI_560/2024 and UPC_CFI_89/2025 (29 May 2026), the Local Division (LD) Copenhagen held that a patent must do more than describe a desired result. For claims defined by functional features, the specification must disclose a technical teaching enabling the claimed functionality to be achieved without undue burden.

The dispute concerned a hybrid generator system comprising a primary energy source and a battery.

Claim 1 required a specific energy-flow arrangement where the generator used the primary energy source, such as an engine, to charge the battery, while electrical power supplied to an external output was provided exclusively by the battery. The subject matter of claim 1 therefore required that the primary energy source did not itself supply any electrical power to the output; its sole function was to provide charging energy to the battery.

The Court found that the patent did not provide the skilled person with a technical teaching enabling this specific energy flow configuration. In particular, the patent did not disclose how to ensure that the energy generated by the primary energy source would only be used for charging the battery and could not be supplied directly to the output. The specification therefore failed to provide the necessary technical concept for achieving the claimed functional relationship between the primary energy source, the battery, and the output.

The Court acknowledged that technical solutions could theoretically be developed to achieve the claimed functionality. However, the mere fact that a skilled person could develop such a solution based on common general knowledge was not sufficient. The Court found that the patent specification did not disclose any such implementation, for example by specifying a switching sequence or another technical measure to control the energy flow.

The relevant question was not whether a skilled person could develop a solution, but whether the patent enabled the claimed invention without undue burden. The Court concluded that the patent did not enable the skilled person to carry out the invention, and so was considered to be insufficiently disclosed.

In short, for functional claim features, the UPC requires at least one enabling technical concept in the patent itself. This is consistent with EPO practice: the disclosure must teach how to perform the invention without undue burden, and not simply identify the result to be achieved. Although not considered in this case, the EPO also requires that the skilled person be able to perform the invention over the whole scope of the claim in order for the invention to be sufficiently disclosed (see e.g. Guid. F-III, 1).

The UPC takes a fresh look at prosecution history estoppel

In UPC_CFI_727/2024, UPC_CFI_493/2025 (5 May 2026), the LD Milan construed features relating to positioning means in the opened state of a centring device for an injection-moulding or die-casting forming tool. The claimant advocated a broad interpretation where an entire intermediate phase, during which the transition from the opened state to the closed state takes place, should be regarded as part of the "opened state". The defendants put forward a narrower interpretation, involving a second rolling body row touching an edge.

Crucially, during EPO prosecution the claimant had submitted that it was "essential" or "decisive" (in the German original: "*entscheidend*") that the second rolling body row abuts the edge. The communication of intention to grant the patent was issued in response to this submission. On this basis, the Court did not follow the claimant's broad interpretation.

The Court indicated that, "in view of legal certainty, the complete turnaround in the statements made by the applicant/proprietor must be taken into account". Furthermore, "[t]he applicant's assertions during the grant proceedings can be seen as an indication of the view of the person skilled in the art at the filing date" and that "[a]lthough statements made by the patent proprietor during examination proceedings before the EPO are not binding, they may nevertheless provide further guidance on interpretation as they reflect the possible opinion of the person skilled in the art".

This decision appears to move European practice closer to a form of file-wrapper estoppel familiar from US law. European courts have traditionally given limited weight to prosecution statements and have not treated them as binding. Here, however, the Court relied on those statements as the main guidance for construing the claim.

The decision appears to go further than the Court of Appeal's earlier estoppel orders in Alexion v Samsung Bioepis and Alexion v Amgen (UPC_CoA_402/2024 and UPC_CoA_405/2024, both dated 20 December 2024),

where prosecution statements were considered as an indication of the view of the person skilled in the art at the filing date.

A key takeaway from this case is that the UPC may be prepared to use prosecution statements as meaningful interpretative evidence, even if not formally binding. If confirmed on appeal, this would make careful prosecution still more important before the EPO, particularly where submissions may later be characterised as narrowing or decisive.

LD Düsseldorf on indirect infringement: absolute prohibition does not automatically justify corrective measures

In M-A-S Maschinen- und Anlagenbau Schulz GmbH v. Altech Makina (UPC_CFI_316/2024; UPC_CFI_547/2024) (10 December 2025), the LD Düsseldorf distinguished between injunctions and corrective measures such as recall, removal from channels of commerce, and destruction in cases of indirect patent infringement.

The Court held that such corrective measures are generally unavailable for products giving rise only to indirect patent infringement. The Court also held that those products are not themselves the "subject-matter of the patent". Although the accused products could only be used in a patent-infringing way and thus an absolute prohibition ("*Schlechthinverbot*")[24] was justified, the Court held that this did not automatically open the door to recall, removal, or destruction of products. It emphasised that the accused products could be marketed lawfully in patent-free foreign markets.

The decision is consistent with earlier UPC case law. In Ortovox v. Mammut (UPC_CFI_16/2024, 14 January 2025), the LD Düsseldorf held that products giving rise only to indirect infringement are generally not subject to recall or removal (page 36, second paragraph). In Brita v. AQUASHIELD (UPC_CFI_248/2024, 22 August 2025), the LD Munich went further, holding that Art. 64 UPCA does not apply to indirect infringement under Art. 26 UPCA (margin no. 270). By contrast, Arts. 63, 67 and 68 UPCA remain applicable to indirect infringement because those provisions refer to "infringement" or the "infringer", rather than to "products found to be infringing a patent", as recited in Art. 64 UPCA.

The UPC approach also aligns with German case law. Recall is generally unavailable against a mere indirect infringer (Higher Regional Court Düsseldorf - 2 U 41/17; Higher Regional Court Düsseldorf - 2 U 71/16). For the corrective measure of destruction, the German Federal Court of Justice clarified that since the possession of products that indirectly infringe a patent, and offering or delivery of such items in areas outside the scope of the German Patent Act and for purposes other than the use of the invention is not prohibited, the Patentee cannot demand that products possessed by the indirect infringer be destroyed (FCJ, decision of November 22, 2005 - X ZR 79/04 ("extracoronales Geschiebe")). Although the commentary literature recognises exceptions in cases of an absolute prohibition ("*Schlechthinverbot*"), a claim for destruction is nevertheless precluded where the infringer also offers the indirectly patent-infringing product for use in a patent-free country and also delivers it there (Regional Court Munich - 7 O 15350/19).

In summary, even where indirect infringement justifies an absolute prohibition, the UPC does not automatically extend that remedy to recall, removal, or destruction. Corrective measures require close attention to the wording of Art. 64 UPCA, the nature of indirect infringement, and whether lawful foreign or non-infringing markets remain available.[25]

Sofie McPherson

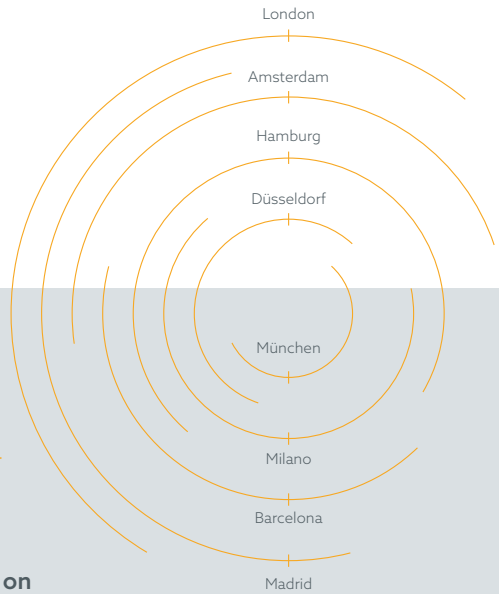
Ph.D. (Biomaterials), M.Eng. (Materials Engineering in Medicine)

Partner | British and European Patent Attorney | UPC Representative

HE Electrical Engineering & Digital Technologies practice group

[24] An absolute prohibition ("*Schlechthinverbot*") is an unqualified prohibition of the acts concerned, rather than a qualified injunction normally granted for indirect infringement, which allows them to continue subject to warnings or contractual safeguards.

[25] Thomas Tromm, Maximilian Zangs, Sebastian Rennebaum and Marcel Peigné also contributed to this article.



HOFFMANN EITLE | Patent- und Rechtsanwälte PartmbB

Arabellastraße 30 | 81925 München
P +49 89 924090 | F +49 89 918356
pm@hoffmanneitle.com | **www.hoffmanneitle.com**
For UPC matters, contact upc@hoffmanneitle.com

Follow us on

www.hoffmanneitle.com/en/newsletter-subscription/
www.hoffmanneitle.com/en/legal-notice/