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Antibody Epitope Claims at the EPO and the UPC

Antibodies have emerged as powerful tools over the past few decades, and today antibodies are at the forefront of modern medicine, playing a central role in both therapeutics and diagnostics. At the EPO, a claim to an antibody can include defining the antibody by its amino acid sequence and/or by functional features, such as its binding affinity, neutralising activity, and so on. Defining the antibody by its epitope, i.e. the site on a target antigen to which an antibody specifically binds, is an attractive option for patent applicants. This article aims to summarise recent case law to provide a practical approach on how an applicant might claim an antibody by its epitope, and what information may be helpful to include in the application.

How to define the epitope in the claim?

The specific wording used to define the epitope in the claim is of key importance. In particular, the claim needs to clearly define the epitope so as to satisfy the requirements of Article 84 EPC and distinguish over prior art antibodies binding to the same target antigen. Defining an epitope by a potentially unclear term can also lead to issues post-grant, where deletion of an unclear term from an independent claim can be difficult as it may lead to an extension of scope, contrary to Article 123(3) EPC (a so-called "inescapable trap").

An epitope may be defined structurally, by the amino acid sequence of the target antigen, and/or functionally. When defining an epitope structurally, different issues arise depending on whether the epitope is linear, *i.e.* a primary sequence of amino acids, or discontinuous, *i.e.* amino acid residues that are brought together to form a three-dimensional surface that is recognized by the antibody.

T 1624/21 provides an example of a claim defining a linear epitope. In this case, the epitope was defined as *"An anti-14-3-3 eta antibody, wherein said antibody is capable of specifically binding to an epitope located between positions 142 to 158 of the human 14-3-3 eta protein, the epitope is represented by the amino acid sequence KKNSVVEASEAAYKEAF (SEQ ID NO:24)".* Here, the Board overturned the Examining Division's decision to refuse the application, and therefore seemingly accepted this claim wording.

In reality, many antibodies bind to discontinuous epitopes, which can be more challenging to clearly define in a claim. One issue that can arise is how to limit the epitope. For example, a broad interpretation was adopted in **T 813/19**, which defined the antibody as specifically binding to *"a cysteine knot region of human activin A, said region spanning amino acids C11-S33 and amino acids C81-E111 of the sequence set forth in SEQ ID NO:225, and inhibits binding of human activin A to human activin A receptor"*. The Board rejected the interpretation put forward by the Patentee that the term 'spanning' required that the antibody must bind to at least one amino acid from C11-S33 and one amino acid from C81-E111 of SEQ ID NO:225, but instead held that the epitope was *"anywhere in the cysteine knot region"*. This had consequences for patentability, with the epitope feature not being taken into account when assessing inventive step, and the patent was revoked.

On the other hand, **T 326/22** provides an example of a claim defining an antibody by its discontinuous epitope that was upheld by the Board. In this decision, the claim was directed to the residues of the epitope that were bound by the antibody as identified by X-ray crystallography, in combination with functional features: *"An isolated monoclonal antibody or immunologically active fragment thereof that binds to human CD47, wherein the antibody or immunologically active fragment thereof binds to a discontinuous epitope on CD47, wherein the discontinuous epitope comprises amino acids residues Y37, K39, K41, K43, G44, R45, D46, D51, H90, N93, E97, T99, E104, and E106 of CD47 when numbered in accordance with SEQ ID NO: 147, and wherein the antibody or immunologically active fragment thereof prevents CD47 from interacting with signal-regulatory-protein α (SIRPα) and does not cause a significant level of agglutination of cells after administration".*

In **T 2552/22**, the Board considered the claim wording *"binds an epitope of human LAG3 comprising the amino acid sequence of SEQ ID NO: 77"* and commented that

the skilled person would understand that an epitope of a particular antibody depends on the assay used and the assay parameters. The Board recognized that different assays can measure different properties of an epitope, such as functional or structural properties, and thus result in different amino acids being included or not included as part of an epitope for a given antibody on a given target. It is therefore important to include in the patent application embodiments defining the assay(s) used to map the epitope and the assay parameters. These can provide useful fall-backs to incorporate into the independent claim to distinguish over the prior art and clarify the scope of the claim.

Defining the antibody by a combination of its epitope and functional features can be a useful way of distinguishing over the prior art, as illustrated in **T 835/21**. In this case, the claim defined the antibody as binding to *"an epitope of human LRP6 within amino acids 631-932 of SEQ ID NO:1"* and also having the functional requirements of being capable of antagonising the Wnt signalling pathway, and inhibiting Wnt3- and Wnt3a-specific signalling activity. These functional features were central to the Board's decision that the claimed subject matter was novel and inventive over the prior art antibodies. When including functional features, it is important to clearly define the assays to measure these and their parameters in the application.

How much information to provide in the application to provide an enabling disclosure?

To satisfy the requirements of sufficiency of disclosure at the EPO, information must be available that allows the skilled person to identify further antibodies binding to the same epitope (and satisfy any further functional features in the claim), and that enables production of such antibodies.

This can be relatively straightforward to satisfy when the epitope is defined as a linear stretch of amino acids. For example, the Board in **T 835/21** considered that there was no undue burden to make antibodies that bind to *"an epitope of human LRP6 within amino acids 631-932 of SEQ ID NO:1"* using immunization or phage display.

It can be harder to satisfy these requirements for antibodies binding to discontinuous epitopes. This was confirmed in **T 435/20**, in which the claim was directed to *"An antibody, or antigen binding fragment thereof, that binds to human IL-23p19 at an epitope comprising residues 82-95 and residues 133-140 of SEQ ID NO: 29."* The patent described an antibody that fell within the scope of the claims (wherein the epitope was mapped using X-ray crystallography). However, the Board held that the claim was insufficiently disclosed because no information was provided in the patent on a suitable antigen for raising further antibodies with the same epitope specificity, and there was no screening process enabling the reliable selection of such antibodies, or evidence that such antibodies could be routinely generated or screened with reasonable effort. Similarly, in **T 1103/22** the Board held that defining the epitope functionally, as "the binding molecule binds at the active site located in the light chain region of factor XI", was not sufficiently disclosed because the patent did not provide an assay to identify such antibodies, or provide any antibodies meeting the requirements of the claim that could be used to generate and compare further antibodies.

On the other hand, the Board in **T 326/22** (discussed above) held that the claim to a discontinuous epitope was sufficiently disclosed. Key factors in the decision were that the patent included information on the antigen used to raise the antibody shown to have the epitope as claimed, as well as the screening methods used to identify the antibody. Interestingly, the Board held that performing X-ray crystallography as part of the screening methods did not present an undue burden, because other assays (a cross-competitive assay and assays for the claimed functional features) were also included in the patent that could be used to reduce the number of candidate antibodies before performing X-ray crystallography as a confirmatory step. The patent also described variant sequences that fulfilled the requirements of the claim.[1]

These decisions therefore highlight the importance when drafting an application of including information on how the antibody binding to the epitope as claimed was generated and screened, and details of any variant antibodies binding to the same epitope.

[1] As discussed in our separate article (Adam Lacy, Irene Martin Badajoz, "Epitope claims are still alive at the EPO", Kluwer Patent Blog, June 11, 2025), **T 326/22** is also a significant decision because the Board considered the antibody to involve an inventive step when the objective technical problem was formulated as the provision of an alternative antibody.

Demonstrating a technical effect

To recognize an inventive step of an antibody defined by its epitope, the EPO usually requires an unexpected technical effect arising from binding to the epitope that is achieved across the whole scope of the claim (*i.e.* for all antibodies binding to the claimed epitope).[2] This can be problematic when the epitope is interpreted broadly. For example, in **T 2552/22** discussed above, antibodies that did not show the technical effect asserted by the Patentee nevertheless fell within the scope of the claim in view of the broad interpretation adopted by the Board. As a result, the technical effect was not taken into account, and the patent's contribution was considered to be the provision of alternative antibodies binding to the target antigen, which was held to be obvious. Another example is provided in **T 2258/15**, in which the Board held that the technical effect of providing "good internalisation properties" could not be taken into account for supporting inventive step.

In addition, the extent to which post-filed evidence of a technical effect is taken into account is limited, as set out in **G 2/21**. It is therefore important when drafting an application to include information on the technical effect(s) arising from binding to the epitope as claimed.

Epitope claims at the UPC

The Unified Patent Court (UPC) has considered the validity of an epitope claim in the dispute between Sanofi and Regeneron (the Claimants) and Amgen (the Defendants) with respect to Amgen's European patent, EP 3 666 797 B1. The claim at issue was directed to a monoclonal antibody or the antigen-binding fragment thereof that "*binds to the catalytic domain of a PCSK9 protein of the amino acid sequence of SEQ ID NO: 1, and prevents or reduces the binding of PCSK9 to LDLR.*" The decision of the Munich Central Division of the UPC of 16 July 2024 (UPC 1/2023) revoked the patent under lack of inventive step, holding that the claimed epitope domain was an arbitrary feature. To the contrary, the EPO Opposition Division upheld the patent, and considered that there was a lack of direct evidence of the claimed pharmaceutical effect in the prior art. Both of these first instance decisions have been appealed, and it will be interesting to see if the Appeal courts will re-align their positions.

Conclusions

The validity of an epitope claim depends on the facts of each case. However, some common themes stemming from the case law can be used to guide drafting of applications, such as:

- providing example claim language that might be used;
- including fall-back positions to define the epitope functionally;
- providing information on how the antibody was generated and/or screening test(s) for how it was identified;
- providing the methodology on how the epitope was mapped and embodiments directed to specific epitope mapping methods; and
- including data showing one or more technical effect(s) associated with binding to the epitope as claimed.

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[2] EPO Guidelines for Examination, Part G-II, 6.2. Note that for cases where the technical effect is defined in the claim, the EPO will examine whether the application provides an enabling disclosure of antibodies having the claimed effect.

Provisional Measures Before the UPC: Legal Framework and Practice

Now, more than two years into its existence, the first wave of decisions of various local divisions (LD) of the Unified Patent Court (UPC) and its Court of Appeal (CoA) in proceedings concerning provisional measures such as provisional injunctions have been issued, steadily consolidating UPC case law. We summarize here the requirements of applications for provisional measures before the UPC to provide guidance on the circumstances under which provisional measures may be granted.

1. Patent validity and infringement

1.1. Legal basis

Applications for provisional measures before the UPC are governed by Art. 62 of the Agreement on a Unified Patent Court (**UPCA**) in conjunction with Rules 205–213 Rules of Procedure (RoP). Article 62(1) UPCA grants the UPC authority to order provisional measures to prevent an imminent or actual infringement. An applicant for provisional measures has to provide reasonable evidence for its entitlement to file an application (e.g. as a patentee) and its allegation of an imminent or actual infringement (Art. 62(4) UPCA in conjunction with R. 211.2 **RoP**). The UPC must be convinced to a sufficient degree of certainty that these requirements are fulfilled.

1.2. UPC practice

The CoA interprets the requirement of a "sufficient degree of certainty" using the following rule: the UPC must be convinced that it is more probable than not that the applicant is entitled to initiate proceedings and that the patent is infringed (CoA 335/2023, 26/02/2024, p. 27; CoA 297/2024, 3/12/2024, p. 10; CoA 523/2024, 03/03/2025, p. 13). Applicants must therefore present and prove facts establishing the probability of standing and infringement, whereas respondents must present and provide evidence for facts regarding the invalidity of the patent or other defenses (e.g. a prior use right).

In the CoA's order in 10x Genomics and Harvard v. NanoString (CoA 335/2023, 26/02/2024, p. 27), the UPC further clarified, that since provisional measures are decided in summary proceedings (i.e. Rules 205 ff. RoP) with limited opportunities for the parties to present facts and evidence, the standard of proof must not be set too high, particularly if referring the case to main proceedings would risk causing irreparable harm to the patentee. On the other hand, it must not be set so low as to risk unjustified harm to respondents if the provisional measure is revoked later.

Although the proceedings are summary in nature, the respondent's validity challenges will still be examined thoroughly. However, a full review of all validity attacks may be difficult. To balance the need for thorough examination with the limits of the procedure, the LD Munich repeatedly suggested that the respondent should limit itself to its three strongest validity arguments, which the UPC will then review in depth (LD Munich, CFI 74/2024, 27/08/2024, headnote 4; CFI 443/2023, 21/05/2024, headnote 3; CFI 201/2024, 27/08/2024, headnote 4). The CoA has yet to confirm whether this standard will be upheld. In the meantime, respondents before the LD Munich should at least emphasize which three attacks on validity are their main attacks.

Applicants on the other hand should make sure they have sufficient arguments and proof for their entitlement to initiate proceedings and their infringement allegations, as the UPC will only examine the further requirements of provisional measures if these requirements have been met.

Examples of this are

- CoA 335/2023: Injunction refused because the patent was more likely invalid for lack of inventive step,
- CoA 297/2024: Injunction refused because on the balance of probabilities, it was found to be more likely that the patent was not infringed as the UPC was not convinced of the realization of all features,
- CoA 523/2024: Both validity and infringement found to be more likely, enabling the UPC to proceed to necessity and weighing of interests (see below).

In the context of marketing generic medicines, the UPC has furthermore clarified under which circumstances an imminent infringement can be assumed (CoA 446/2025, 13/08/2025, headnotes 1-2, p. 12):

- The mere application or grant of a marketing authorization is in general not sufficient to create an imminent infringement.
- Depending on the national regulatory and legislative context and the circumstances of the case, completion of national regulatory assessment, pricing and reimbursement can potentially amount to an imminent infringement. An indicator is whether any further administrative steps remain before the product can be commercialized.

Applying this standard led to the confirmation of an imminent infringement considering the specific circumstances of Portuguese administrative procedures (ibid., p. 15).

2. Urgency – diligent pursuit of an application, not a stopwatch

2.1. Legal basis

Urgency is not explicitly mentioned by Art. 62 UPCA as a requirement for provisional measures, but Rule 209.2(b) RoP instructs the UPC to consider urgency when exercising its discretion. Furthermore, Rule 211.4 RoP requires the UPC to consider any unreasonable delay by the applicant in seeking provisional measures.

2.2. UPC practice

When applying this legal basis, the UPC focuses on when the applicant obtained sufficient grounds to request provisional measures. The decisive point in time is once the applicant obtained "knowledge and documents that reliably enable a promising legal action" (LD Düsseldorf, CFI 463/2023, 30/04/2024, p. 28; LD Hamburg, CFI 151/2024, 03/06/2024, p. 19). From that moment on, applicants must act without further delay and file their request in due time. Although the CoA has not set a specific timeframe yet, UPC practice shows that the circumstances of each case matter in determining the appropriate amount of time for preparing an application. Some LDs suggest that applicants normally have about one month to prepare and file their application once they have gathered the necessary documents and facts (LD Düsseldorf, CFI 463/2023, 30/04/2024, p. 28; LD Hamburg, CFI 151/2024, 03/06/2024, p. 19). If the application involves provisional measures in more than one Contracting Member State (CMS) of the UPC, the LD Munich has considered a period of up to two months to still be timely (LD Munich, CFI 443/2023, 21/05/2024, headnote 1; LD Munich, CFI 201/2024, 27/08/2024, p. 28).

Delays beyond this, without compelling justification, may be considered detrimental to urgency as applicants must diligently proceed with the required steps at each stage.

For example, the CoA has accepted in Syngenta v. Sumi Agro a delay of a few months because several steps were necessary prior to filing an application for provisional measures: the accused product had to be located and purchased in another CMS, customs clearance was delayed for reason of hazardous materials, and a further analysis of the infringing product was required (CoA 523/2024, 03/03/2025, p. 19). Moreover, In Abbott v. Sibionics, Abbott sent the contested embodiment to an independent third party for thorough testing. As, from an ex-ante perspective, such testing appeared necessary to confirm infringement, it justified a delayed filing of the application. The fact that testing later proved unnecessary did not affect the application's urgency (CoA 382/2024, 14/02/2025, p. 29).

3. Weighing of interests and necessity

3.1. Legal basis

Art. 62(2) UPCA in conjunction with R. 211.3 RoP requires weighing of interests between the parties. The UPC has discretion in particular to consider the potential harm for either of the parties resulting from the granting or the refusal of an injunction. The weighing of interests is closely linked to the question whether it is necessary from an objective perspective under the specific circumstances of the case to order a provisional measure. Necessity of ordering a provisional measure itself is addressed in Rule 206.2(c–d) RoP, according to which the applicant is required to bring facts and evidence supporting its claim of necessity. It is often discussed by the UPC as a decisive factor when weighing the parties' interests.

3.2. UPC practice

For a provisional injunction to be necessary, a central question is whether the applicant can await the main proceedings (LD Hamburg, UPC CFI 387/2025, 14/08/2025, p. 35). This stems from the fact that the summary examination in preliminary proceedings is considered to be an exception, whereas main proceedings are the standard. When considering the necessity of issuing an order instead of referring applicants to main proceedings, the UPC must take into account the risk of an erroneous order as well.

In Abbott v. Sibionics, the CoA laid out what factors might be considered when weighing interests. The CoA emphasized that irreparable harm due to price erosion is a strong argument for an order in favor of an applicant. If, for example, the respondent continuously and systematically undercuts market prices with promotions and discounts of its products, this can lead to a negative price spiral which is difficult to reverse for the patentee (CoA 382/2024, 14/02/2025, pp. 29-30). Moreover, an uncertainty whether damages can be recovered (for example if the respondent has no assets in UPC territory) will weigh in applicant's favor. That the respondent's damages from delayed market entry are easier to quantify than the applicant's long-term losses from price erosion further tips the scale in favor of the applicant.

The LD Munich held in Syngenta v. Sumi Agro that non-retrievable loss of market shares is a compelling ground for ordering a provisional injunction (LD Munich, CFI 201/2024, 27/08/2024, p. 29). The CoA confirmed this, further clarifying that a shift from a single-product market to one with two competing products is likely to cause not only immediate price pressure but also lasting price erosion (CoA 523/2024, 03/03/2025, headnote 1 and p. 18). The presence of other competitors in the relevant market segment does not hinder the assumption of market share losses through the distribution of the infringing product if it is offered at a significantly lower price (LD Hamburg, CFI 387/2025, 14/08/2025, p. 35).

Moreover, arguments by a respondent that only a limited number of infringements are at issue will likely not convince, since the necessity of an injunction is not reduced by the number of infringements (LD The Hague, CFI 195/2024, 31/07/2024, p. 15).

Conversely, it might be difficult to succeed with an application, if the requested provisional injunction would change a status quo on the market already established years before the grant of the patent, as demonstrating the need for a provisional injunction to protect current market shares or prices under such circumstances is difficult (e.g. CoA 540/2024, 24/02/2025, headnote 3 and pp. 9-10).

4. Provisional measures for preservation of evidence

Outside the scope of injunctions, the CoA has recently clarified that when assessing an application for preserving evidence the UPC is not required to consider whether there has been any unreasonable delay (CoA 327/2025 and CoA 002/2025, 15/07/2025, headline 3 and p. 7). Rather, the focus lies on the probability or demonstrable risk of evidence being destroyed or otherwise ceasing to be available.

Furthermore, in case of an application for the preservation of evidence, the requirement that the patent must be valid with a sufficient degree of certainty does not apply (ibid., headnote (v) and pp. 7-8). The UPC will only assess validity in this context if the presumption of validity due to the grant has been dispelled. This situation arises if an Opposition Division of the European Patent Office or a national court has held the patent to be invalid.

5. Key takeaways

- When assessing urgency, the UPC requires the applicant to prepare and submit the application with due care and without undue delay. Applicants should therefore document all steps in the preparation of the application from the first detection of the alleged infringement and ensure that there are no unjustified gaps.
- Substantiating the risk of lasting price erosion and/or an unretrievable loss of market share can significantly raise the chances of obtaining provisional injunctions.
- Potential respondents must be prepared to present any defenses swiftly and convincingly, particularly challenges to the presumed validity of the patent. For proceedings at the LD Munich, the three main attacks on the validity of the patent should be identified.
- Urgency and validity assessment in evidence preservation requests follows different criteria.

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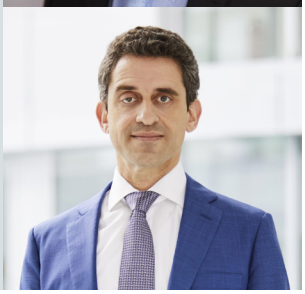

The Utility of Negative Features at the EPO: A Positive Experience

Patent claims are usually drafted in terms of positive limitations, defining the essential elements or properties of an invention. Sometimes, an invention results from a conscious absence of a feature which would otherwise have been assumed in the state of the art. Although many patent offices do not exclude such claim formulations as a matter of law, such limitations can be challenging to progress to grant. T 784/23,[3] a decision of the EPO's Boards of Appeal, illustrates that such definitions are not only permissible under EPO practice, but can effectively delimit from the state of the art.

T 784/23 addressed the appeal by the patent proprietor LINPAC Packaging Limited (a Klöckner Pentaplast Group company) against the decision of the EPO's Opposition Division to uphold the patent only in amended form. The granted patent was directed both to containers in the form of trays of the kind used to package fresh food, and to their method of manufacture. The containers to which the patent was directed were manufactured of the polymer polyethylene terephthalate (PET), and included a peripheral flange to which a lidding film, itself comprising a polypropylene (PP) or polyethylene (PE) seal layer, could be sealed in order to close the container. The atmosphere within such containers could moreover be modified to enhance the shelf life and/or appearance of the fresh food within the container.

Polyethylene terephthalate was a desirable material for food packaging, since the use of certain forms of PET, particularly the amorphous form, provided a high clarity product that enabled a user to view readily the contents of the container. Effective sealing of containers made from pure PET with a lidding film was a challenge, owing to difficulties obtaining an effective seal to the PET surface, which was particularly sensitive to contaminations. Providing a multilayer PET tray in which the PET was coated with a layer of polyethylene (PE) and an intermediate layer of ethylene vinyl acetate (EVA) was known to improve the sealing properties, but introduced sustainability challenges, since the coated PET was known to induce cloudiness when recycled.

To create an effective seal with the lidding film, but without compromising the sustainability of the trays, the patent proposed to provide a layer of adhesive on an upper, in use, surface of the peripheral flange, to which the lidding film could be sealed. The patent moreover required that the layer of adhesive, although present on the flange of the tray, should not extend onto the vertical, in use, surfaces of the continuous side wall of the tray and should not extend onto the base. By such measures, the contamination of the PET material by the adhesive was minimized, which enabled the container to be recyclable into clear products.

The technology to which the patent relates has contributed to the Proprietor's product having received Class A recyclable certification by RecyClass, such that the container, bearing the adhesive, is sorted into the Clear PET fraction when recycled. Moreover, the technology has contributed to the tray having achieved the Tray Circularity Evaluation Platform (TCEP) endorsement, a European benchmark for PET tray recyclability.

The two Opponents attacked the validity of the patent for lack of sufficient disclosure, improper amendment during prosecution (added matter), and lack of novelty and inventive step. The Board found that amendments made during prosecution which allowed the scope of claim 1 to cover non-clear PET trays should have been regarded as unallowable, but allowed a curative amendment to claim 1 to claim specifically thermoformed clear PET trays to resolve the point. However, the Opponent's other attacks all failed to further limit the scope of protection.

In particular, the negative limitation that *"[the] layer of adhesive does not extend onto the vertical, in use, surfaces of the continuous side wall [of the tray] and does not extend onto the base"* was found distinctive over the two references pleaded by the Opponents against the scope of the granted claim, and moreover, contributed to solving the technical problem relative to the state of the art of enabling the container to be

[3] Decision T 784/23 dated 10 April 2025. The authors represented the Proprietor in the EPO proceedings.

recyclable into clear products. The Board therefore confirmed the patent as valid in amended form, with a scope of protection of the product limited to clear, thermoformed containers.

The Board's reasoning for finding distinctiveness in the cited feature relative to the primary reference relied upon, D1 (WO 2009/121834 A1) is interesting reading. The Board wrote, at point 8.2.1:

> *"As correctly argued by the patent proprietor D1/D1' does not indicate anywhere that the sealable layer is coated solely or exclusively on the rim or bearing surface. D1/D1' teaches that the container is coated at the sites ("Stellen" in D1) to be sealed with the sealing foil. The board is of the view that such areas might well include the vertical walls. The statement that the sealing takes place "in particular on the rim" cannot be equated with a disclosure that such sealing takes place exclusively on the rim, but merely that the sealable layer is applied at least, but not solely, to the rim. In sum, it is not excluded in D1 that at least an upper portion of the side walls could also be a sealing area, so that feature 1.5 is not directly and unambiguously disclosed by D1."*

Applying the EPO's well-established Gold Standard rule for anticipation – that the subject-matter of the claim should clearly and unambiguously follow from the allegedly anticipating reference – the Board took the view that there was room in the disclosure of D1 for the lidding film to extend onto the side walls. Later, when considering inventive step, the Board considered that there was no clear motivation either in D1 or in the skilled person's common general knowledge to prevent the lidding film so extending, without hindsight knowledge of the invention and its advantages, reasoning that:

> *"As correctly argued by the patent proprietor, the application of a layer of adhesive only at the peripheral flange is not less complicated than an adhesive application without spatial restrictions. Furthermore, applying adhesive on the top inside part of the walls or on the outside part of walls of the container would not result in a contamination of the content. Therefore, the distinguishing feature 1.5 is not considered an obvious measure".*

The Decision is moreover interesting since it addresses a European patent which was in an earlier decision revoked by the UK Intellectual Property Enterprise Court for lack of inventive step. The document relied on in the British Court proceedings was not D1, but was a different document, of which a closely related document was relied upon as D2 of the EPO proceedings. Considering this document, the Board found no motivation for the skilled person to start from this reference when addressing a problem of recycling as solved by the patent. The Board was clear that the skilled person, starting from inter alia D2 as closest prior art, would only have arrived at the subject-matter of the amended claim as the result of an ex post facto analysis.

A direct comparison between the EPO and UK approaches is not possible, since the claimant for revocation at the British Court did not raise the issue of impermissible amendment, such that the subject-matter of the claim considered by the British Court differed from that considered by the EPO in that the container was not expressly stated to be clear and thermoformed, and at least the requirement for clarity was considered by the Board to distinguish the amended claim from D2.

The Decision therefore reveals the power of negative features under the EPO's Gold Standard for disclosure, leading to a positive outcome for the Proprietor in this case.

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G 1/23 – Reproducibility Is Not a Requirement to Make Products Available to the Public in the Sense of Art. 54(2) EPC

Since G 1/92, several decisions of the EPO's Boards of Appeal have ruled that, in particular, reproducibility of the chemical composition of a product is required for the product to form part of the state of the art. G 1/23 partially overturns G 1/92. We look at this important new development in EPO case law.

1. Background

The referral underlying decision G 1/23 "Solar Cell" is concerned with the correct understanding of the EBoA opinion G 1/92.[4] It was established in G 1/92 that "[t]he chemical composition of a product is state of the art when the product as such is available to the public and can be analysed and reproduced by the skilled person, irrespective of whether or not particular reasons can be identified for analysing the composition".[5] It was further stated that an essential purpose of any technical teaching is to enable the person skilled in the art to manufacture or use a given product by applying such teaching. Where such teaching results from a product put on the market, the person skilled in the art will have to rely on their general technical knowledge to gather all information enabling them to prepare the product. Where it is possible for the skilled person to discover the composition or internal structure of the product and reproduce it without undue burden, then both the product and its composition or internal structure become state of the art.

One interpretation of G1/92 led to the conclusion that a product that cannot be reproduced without undue burden (e.g. because in-house knowledge about the method of manufacture was not in the public domain and reverse-engineering would have been difficult or impossible) would simply not be prior art, and thus could not form a basis for a valid novelty or inventive step attack. This situation is frequently encountered in polymer chemistry. In the underlying referral, the Patent Proprietors[6] used this as a defense against a lack of inventive step attack relying on a composition that was based on a commercial polymer (Dow's ENGAGE™ 8400), which is not reproducible as its method of manufacture is unknown. Such an approach was adopted, for example, in T 1833/14 for a commercial polymer product, which was excluded from the state of the art due to its non-reproducibility.

However, other decisions adopted a different approach. Furthermore, the referring Board was uncertain as to what extent and to what degree of accuracy a product needs to be reproducible to qualify as a reproduction of the same product. Another issue was whether, even if the product itself was not reproducible and therefore not prior art, published information about the product or information that could be derived using routine analysis techniques could nonetheless be considered available to a skilled person, or whether such information was also considered not to form part of the prior art.

2. Questions referred to the EBoA and subsequent proceedings

As these points were considered relevant to the decision to be taken by the Board of Appeal and as different approaches had been adopted in the case law, the following questions were referred to the EBoA:

1. *Is a product put on the market before the date of filing of a European patent application to be excluded from the state of the art within the meaning of Article 54(2) EPC for the sole reason that its composition or internal structure could not be analysed and reproduced without undue burden by the skilled person before that date?*

[4] See for example Timo Pruß, Referral G 1/23: *The Public Availability of Products in a New Light, Hoffmann Eitle Quarterly*, September 2023, pp. 14-16.
[5] G 1/92, headnote 1.
[6] Mitsui Chemicals, Inc. and Mitsui Chemicals ICT Materia, Inc., represented by Hoffmann Eitle.

2. *If the answer to question 1 is no, is technical information about said product which was made available to the public before the filing date (e.g. by publication of technical brochure, non-patent or patent literature) state of the art within the meaning of Article 54(2) EPC, irrespective of whether the composition or internal structure of the product could be analysed and reproduced without undue burden by the skilled person before that date?*

3. *If the answer to question 1 is yes or the answer to question 2 is no, which criteria are to be applied in order to determine whether or not the composition or internal structure of the product could be analysed and reproduced without undue burden within the meaning of opinion G 1/92? In particular, is it required that the composition and internal structure of the product be fully analysable and identically reproducible?*

During the proceedings before the EBoA, the parties, members of the public, and the EPO's president submitted diverse views. These ranged from the position that non-reproducible products are simply not prior art (in line with long-standing EPO case law according to which only an enabling disclosure in a written document can be regarded as forming part of the prior art, reflected in the *Guidelines for Examination in the EPO*, G-IV, 2) to the view that they constitute full prior art with all their properties, regardless of any aspect of reproducibility, for example because they can simply be bought and do not need to be reproduced. Some opinions also suggested that reproducible features of a product should be considered to form part of the state of the art, while non-reproducible features should not, in essence splitting a product into enabled (disclosed) and non-enabled (non-disclosed) features.

3. Answers to the referred questions

The EBoA in G 1/23 answered the referred questions as follows:

1. *A product put on the market before the date of filing of a European patent application cannot be excluded from the state of the art within the meaning of Article 54(2) EPC for the sole reason that its composition or internal structure could not be analysed and reproduced by the skilled person before that date.*

2. *Technical information about such a product which was made available to the public before the filing date forms part of the state of the art within the meaning of Article 54(2) EPC, irrespective of whether the skilled person could analyse and reproduce the product and its composition or internal structure before that date.*

4. Analysis

The key considerations that led the EBoA to this decision can be summarized as follows:

i. Where G 1/92 refers to the technical teaching that is conveyed to a skilled person, also the use of a non-reproducible product reflects a technical teaching that should not be ignored. This teaching is not necessarily related to the reproduction of the product as such.

ii. "Reproducing" as referred to in G 1/92 evidently means "producing from other starting materials". Simply buying a product as means of "reproducing" it is a non-sensical interpretation.

However, imposing a reproducibility requirement on an existing product would establish a legal fiction by removing a manifestly existing product from the skilled person's considerations. Even if a skilled person does not know how to prepare a specific product, not every teaching associated with the product can be ignored. Excluding the product and all its associated teachings from the prior art would create a legal fiction that would require an explicit basis in the law. In the absence of such a basis, this concept should be treated with serious reservations.

iii. The term "product put on the market" covers all types of products, not only those with complicated or elaborate structures. The term also covers materials that are not produced ("man-made products"), but simply taken from nature, such as crude oil or iron ore. Man-made products and naturally occurring substances should thus be treated the same way.

Additionally, all production chains inevitably start from a product that is not produced, but which is simply taken from nature and is therefore available to a skilled person.

However, materials that are simply taken from nature cannot be reproduced from other starting materials. Also the elements themselves could be a "product put on the market", and these could not be reproduced from other materials.

In the EBoA's view, imposing an enablement requirement would thus lead to the absurd consequence that no material would remain as prior art. In mathematical terms, the prior art would remain an empty set, as practically everything would be removed from the state of the art.

Based on these considerations, the EBoA found that **G1/92 cannot be maintained in its entirety, and that it is only required that a skilled person can obtain and possess the product.**

This makes the "reproducibility" criterion redundant. The proper reading of G 1/92 would thus be that the chemical composition of a product is part of the state of the art when the product as such is available to the public and can be analyzed by the skilled person, irrespective of whether or not particular reasons can be identified for analyzing the composition.

Further, while the EBoA addresses the issue of "analyzability without undue burden", it considers that there is no need to determine at which point the skilled person's efforts reach the "undue burden" threshold. This would not be decisive for the referred questions, since, in the case underlying the referral, all properties of the ENGAGE polymer could be identified without undue burden. This aspect is therefore omitted from the answers, even though this does not imply that the issue of "analysis without undue burden" could never arise.

In our opinion, the EBoA's decision is crucially based on "ad absurdum" considerations and overturns explicit statements in G 1/92, requiring both analyzability and reproducibility without undue burden. The EBoA's new approach is further based on a very broad understanding of the term "product put on the market", and this approach does not seem to be entirely necessary. For example, the EBoA could also have limited its decision to man-made products that cannot be reproduced based on common knowledge starting from naturally occurring substances or basic chemicals, which may be assumed to be available to any interested member of the public.

Furthermore, it will be interesting to see how, in light of G 1/23, an enablement requirement can still be imposed on written prior art. For example, it would be difficult to understand why the analyzable chemical structure of a non-reproducible compound should be treated as prior art once the compound has been accessible to a member of the public, yet not if the structure only has been published in writing.

Also a very real problem exists where a patent claims a product that differs from the one that has been put on the market. If the product put on the market is seen as the starting point in the inventive step assessment ("the closest prior art"), a certain modification of it may seem obvious and non-inventive. However, if the modification of the product requires a modification of the (unknown) synthesis route, a skilled person will nonetheless have to employ inventive skill in order to effect the modification.

The latter aspect is addressed in the EBoA's decision, which states that the mere fact that a product is prior art does not necessarily imply that it is *relevant* prior art. The fact that a skilled person realizes the inability to reproduce the product may also represent relevant information. Whether a non-reproducible product represents the closest prior art or merely a source of complementary technical teaching suitable for combination with the closest prior art will have to be decided depending on the circumstances of the case.

Non-reproducible features therefore may, but *do not need* to flow into the assessment of inventive step. The EBoA states as an example that adding lemon juice to Coca-Cola (a "non-reproducible product") to achieve a less sweet taste may not require inventive skill, while achieving the original taste of Coca-Cola without sugar or caffeine is probably an unsolved problem (and may require inventive skill). There are no formal, strict rules on how a non-reproducible product or any of its properties are to be taken into account when inventive step is examined, and the relevant technical teaching that a skilled person will derive from such a product will always be case-specific.

5. Key teachings of G 1/23

The following key aspects may thus be derived from G 1/23:

- Patent claims covering a product put on the market will be held **not novel** by the EPO, regardless of any aspect of reproducibility. This includes all aspects of the product (e.g. also inherent properties) that are either published or which can be analyzed by a skilled person. The extent to which "analyzability without undue burden" is decisive has been left open.
- Whether in a given case a non-reproducible product represents a suitable starting point for the assessment of **inventive step** or can only be used as a complementary technical teaching will still be a matter of dispute and discussion.

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Roma Locuta, Causa Finita? The Implications of G 1/24 on Claim Interpretation

A legal principle derived from Roman Catholic canon law is "Roma locuta, causa finita",[7] i.e. once the highest judicial body has spoken, the matter is settled. At the EPO, the Enlarged Board of Appeal (its highest judicial body) decided in G 1/24 on whether the description is to be consulted when interpreting the claims. We look at the Enlarged Board's reasoning and whether all open questions have been settled.

Background

Determining the scope of a patent matters for both infringement and validity. In particular, a patent ought to be granted only for subject-matter that is new and inventive. Accordingly, during both grant and opposition proceedings at the European Patent Office (EPO), the question inevitably arises as to what is covered by the claims of a patent application or patent.

A fundamental question in this respect is to what extent the description affects the protective scope. For example, the description may contain a narrow definition of a claimed term, which as such has, however, a broader meaning for a skilled person. The question is then whether the definition is to be read into the claim, thereby narrowing its protective scope. Alternatively, the description may lead to a broader reading of a claimed term than relying on the wording of the claims alone would warrant. Another question is whether any such explanation in the description is to be taken into account only under certain circumstances.

The EPO case law regarding these questions diverged, which led to the referral to the Enlarged Board of Appeal known as G 1/24.[8]

Decision of the Enlarged Board

The decision itself is remarkable for its clarity and brevity, with the body of the decision spanning nine pages only. The Enlarged Board first held that the description must always be consulted when assessing the patentability of an invention. Even if the claims themselves appear unambiguous as to their scope, it is still necessary to consult the description. Whilst the Enlarged Board had also been asked to decide on whether a definition found in the description can be disregarded in some circumstances, the Enlarged Board considered that the answer to this question was encompassed in the response given to the previous question and thus it refrained from addressing that additional question. G 1/24 does not provide a definition as to what requiring the description to be "consulted" means and thus leaves that question open for the first instance bodies and the EPO Boards of Appeal to decide. The Enlarged Board further emphasized that, whilst the description must always be consulted, the claims are the starting point and the basis for assessing the patentability of an invention, thus confirming the applicability of the principle of "primacy of the claims".

Implications of the Decision

G 1/24 makes it clear that, although the claims have primacy, the description still needs to be consulted. As mentioned above, the decision does not, however, define what exactly "consulting" the description means. However, it is clear that such a consultation involves reading and considering the description in a way that can affect how a claim is interpreted. There does not appear to be much point in 'consulting' the description if the only thing being done is reading it for its own sake. It may well be that consulting the description does not lead to a different interpretation of the claims than would be arrived at when reading the claims in isolation. However, it is at least possible to arrive at a different interpretation of the claims when consulting the description.

[7] This Latin phrase means "Rome has spoken, the case is closed".

[8] For a discussion of the referral, see also Christian Schreiber, Adam Lacy, "Shall I Stay or Shall I Go – How to Interpret Claims Before the EPO", *Hoffmann Eitle Quarterly*, September 2024, pp. 14-15.

The question is, nevertheless, whether such a consultation of the description can lead to a broadening of the protective scope of a claim or whether it can only lead to the protective scope being understood more narrowly. The description may provide a narrower or broader definition of a term used in a claim than is warranted by the wording of the claim itself.

In decision T 1999/23,[9] issued after G 1/24 and explicitly referring thereto, the Board took account of the description using a narrower definition of a term used in claim 1. Whilst claim 1 referred to the "Anregungsfläche" ("excitation area"), the description mentioned that this area should be determined at the focus. However, the Board emphasized that the narrow definition was not reflected in the claim and that the Patentee should not be rewarded for creating this discrepancy between the claims and the description. Accordingly, claim 1 was understood broadly and found unallowable in view of the prior art. This appears to be in line with the principle of the primacy of the claims. Of note, the referring Board in the decision underlying G 1/24 was faced with a similar situation. Thus, the decision to be issued in those appeal proceedings may well provide an indication as to whether T 1999/23 was a one-off decision or whether it is indicative of a broader trend at the EPO.

Whilst there is therefore already case law on the question of whether a narrow definition in the description can be read into a claim, the question of how G 1/24 applies to the opposite situation has, to our knowledge, not been addressed yet. Here, one situation could be that the description provides an express definition or similar explanation which speaks in favour of a broader reading of a term used in the claims. For example, if a claim defines that a certain object should have a metal coating and the description mentions that a metal within the meaning of the disclosure can also be carbon, the question would then arise as to whether a carbon coating would also be seen as encompassed by the term "metal coating". In such cases, interpreting a claim more broadly than merely relying on the terminology used therein appears to be in line with the idea that a claim should cover what is mentioned in the description as falling under the scope of the claim. Put differently, it would arguably amount to ignoring the description if such a definition were not taken into consideration. On the other hand, the reasoning of T 1999/23 could be relied on for a narrow reading of a claim in such a case. That is, if the Patentee had intended to cover more than is implied by the wording of the claims, the claims should have been phrased differently.

Another, probably more common, situation is where the Patentee has, either accidentally or purposefully, not labelled one or more of the embodiments as no longer falling under the scope of a claim which has been narrowed during prosecution, and these embodiments are at odds with the new claim wording. While the practice of amending the description in such cases is the subject-matter of pending referral G 1/25, it is not uncommon that, in a European patent, for whatever reason, an embodiment that at face value plainly contradicts claim 1 is still labelled as an embodiment of the invention. It is not clear yet whether such a case would result in a broadening of the protective scope (with the potentially harmful consequences for validity) or whether, in such cases, it would be assumed that the skilled person would realize that such an embodiment is to be ignored. While such a commonsense approach may appear pragmatic, it may also force the deciding body to guess the intentions of the person in charge of prosecuting the patent application. This situation may become clearer once G 1/25 has been issued.

In summary, while the Enlarged Board has provided guidance as to the relevance of the description in interpreting claims, i.e. the description must always be consulted for interpreting claims, the matter nevertheless seems to be far from settled.

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[9] T 1999/23 (Fotothermisches Messgerät/OPTISENSE) 18-07-2025.

Amendment of the Description at the EPO: The Time Has Come! – Referral G 1/25

Over the past years, diverging EPO case law accumulated on whether the description of a patent application or patent needs to be adapted to amended claims. Technical Board of Appeal 3.3.02 handling opposition appeal case T 697/22 has now seized the opportunity and referred the issue of adapting the description to the Enlarged Board of Appeal (EBoA).

Background

Since about 2021 with an update in the Guidelines for Examination in the EPO, the requirements of adapting the description to amended claims appeared to have become stricter and more burdensome for applicants and practitioners.

The policy was called into question and the recent debate started with the 2022 decision T 1989/18 in which the Board did not find any legal basis in the EPC for requiring an adaptation of the description and for refusing a patent application on basis of failing to do so.[10] Since then, further decisions were issued that were either in favor of the findings in T 1989/18 or in favor of the established practice of adapting the description for conformity with amended claims.[11]

In the case underlying T 697/22, the patent proprietor filed an amended set of claims in opposition proceedings that was found to be patentable. However, it was not until the appeal hearing that the proprietor filed amended description parts with the aim of removing potential inconsistencies with the amended claims to comply with Art. 84 EPC. The Board held that the late-filed documents constituted an amendment to the appeal case and did not admit them in view of the Rules of Procedure of the Boards of Appeal.[12] Hence, the proprietor faced the dilemma of having patentable claims on the one hand, but not a sufficiently adapted description on the other. Without the latter, the patent normally cannot be maintained in amended form.

Consequently, the critical question[13] arose: *"is it necessary, to comply with the requirements of the EPC, to adapt the description to the amended claims so as to remove the inconsistency?"* If this were not necessary, then the proprietor would not need to file any further adapted description and the patent could be maintained in amended form. Otherwise, the proprietor would find themselves in a seemingly inescapable predicament, compelled to amend the description yet barred by procedural law from doing so. The Board initiated a case law search on the issue of adapting the description, retrieving 115 relevant decisions from between April 1983 and February 2025 and confirming two divergent lines of case law. The Board then decided on its own motion to make a referral to the EBoA for the purpose of ensuring uniform application of the law. The referral has been assigned the number G 1/25.

The referral questions

The following three questions have been referred to the EBoA:

1. If the claims of a European patent are amended during opposition proceedings or opposition-appeal proceedings, and the amendment introduces an inconsistency between the amended claims and the description of the patent, is it necessary, to comply with the requirements of the EPC, to adapt the description to the amended claims so as to remove the inconsistency?

[10] For more details, see for example Toby Simpson, "Amendment of the Description: Is It the EPO's Guidelines That Require Adaptation?", *Hoffmann Eitle Quarterly*, March 2022, pp. 9-10.

[11] See Johannes Osterrieth, Michael Müller, "Amendment of the Description Before the EPO: An Update", *Hoffmann Eitle Quarterly*, September 2022, pp. 17-19; and J. Osterrieth, Adam Lacy, "Amendment of the Description Before the EPO: Possible Referral to the Enlarged Board of Appeal", *Hoffmann Eitle Quarterly*, September 2023, pp. 17-18.

[12] Cf. Article 13(1) and (2) RPBA and section 9.4 of the decision.

[13] Cf. section 10 of the decision T 697/22.

2. If the first question is answered in the affirmative, which requirement(s) of the EPC necessitate(s) such an adaptation?

3. Would the answer to questions 1 and 2 be different if the claims of a European patent application are amended during examination proceedings or examination-appeal proceedings, and the amendment introduces an inconsistency between the amended claims and the description of the patent application?

The first question is directed to the fundamental issue of whether or not the description needs to be amended in the first place. It includes the triggering conditions that the claims were amended, and that the amendment leads to an inconsistency with the description. What exactly such an inconsistency might be remains to be defined. In addition, the first question is understandably in the context of opposition or opposition-appeal proceedings. Moreover, the need to make amendments is linked to compliance with "EPC requirements" and aims at articles or rules of the EPC.

The second question appears to have been phrased with the intention to prompt the EBoA to thoroughly consider the legal basis for any possible requirement to adapt the description and to address this point explicitly. The referring Board justifies this question on the basis of a divergence in case law with respect to the legal basis for demanding description amendments. In fact, the Boards disputing the need to adapt the description argue that there is no apparent legal basis therefor. Conversely, the Boards that subscribe to the contrary view often invoke support and consistency aspects derived from Art. 84 EPC. Any answer to this question would provide clarity and legal certainty.

The third question is of high practical interest, since it expands the first question to description amendments in examination proceedings. The Board regards it as a fundamental question of law that affects the practice of all departments of the EPO. Indeed, the EBoA potentially denying the need for making conformity-related description amendments could fundamentally change the daily practice of EPO patent examination.

Outlook

The EBoA will now consider the referral. It may invite the President of the EPO to comment on the matter and third parties to submit *amicus curiae briefs*. Oral proceedings are likely to be held, and a decision may be announced either at the end of the oral proceedings or a couple of months afterwards. Estimating how long this will take is difficult. From recently decided referrals, it can be expected that the EBoA decision in G 1/25 will be issued around or after summer 2026.

When it comes to referrals and ongoing proceedings, the Guidelines for Examination in the EPO[14] state that: *"Where a referral to the [EBoA] is pending and the outcome of examination or opposition proceedings depends entirely on the answer to the questions referred to the [EBoA], the proceedings may be stayed by the examining or opposition division on its own initiative or on request of a party or the parties."* Hence, in principle, the present referral offers the chance to request a stay of related examination and opposition proceedings. Theoretically, this could bring all EPO proceedings in which consistencies between amended claims and the description need to be removed to a halt. However, the EPO already recently announced[15] that, for legal certainty, the EPO will continue examination and opposition proceedings and apply the practice outlined in the Guidelines for Examination in the EPO.

Remarkably, G 1/24, issued recently, puts increased weight on the description when it comes to claim interpretation.[16] G 1/25 is precisely about "shaping" the description to begin with, which then becomes an important source for claim interpretation. In its decision, the referring Board aptly explained that its questions were fundamental questions of law in view of G 1/24: *"Following G 1/24, the question whether an application can be granted or a patent can be upheld if there is an inconsistency between an amended claim and the description has become of even greater significance."*[17]

[14] Cf. Part E – Chapter VII – Section 3.
[15] Referral G1/25 on adaptation of the description, EPO web site, August 8, 2025.
[16] See previous article in the present issue of the *Hoffmann Eitle Quarterly*.
[17] T 697/22, reasons 21.4, third paragraph.

In summary, the referral to the EBoA is welcomed in view of the increasing divergence in case law and the legal uncertainty that comes with it. If the EBoA were to relax the EPO's current strict policy on description amendments, this would ease the burden on applicants and practitioners. On the other hand, any obvious inconsistencies remaining in the description would need to be suitably addressed when interpreting claims pursuant to G 1/24.

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British Trade Mark Appeal Rules on AI Hallucinations in Court Documents

In a UK Trade Mark Appeal case, AI was explicitly used in confectioning court documents. We look at how the UK is setting a different precedence to the US, and at the importance of striking a fine balance between regulation and the benefits of AI in legal tech.

UK Courts are grappling with a new wave of problems created by the use of AI to draft legal documents in proceedings. Particularly stringent is the prevalence of AI-fabricated hallucinations – an AI term coined to denote false outputs – in the context of imaginary case law presented to the Tribunals. These false citations diminish trust in the integrity of legal systems, and can place the perpetrators in a position of contempt of court.

I – A first for UK trade marks

ProHealth Inc v Pro Health Solutions Ltd[18] BL O/0559/25 is the first decision before the Appointed Person (Phillip Johnson) in a trade mark case at the UKIPO to deal with AI in legal submissions. Both Appellant (Dr. Soufian, litigant-in-person) and Respondent (Mr. Caddy, IAM The Victor, LLP) used large language model ChatGPT to draft their grounds of appeal and skeleton arguments respectively.

Some of the quotes in the otherwise real citations by Appellant in their appeal were nowhere to be found. In parallel, the Chartered Trade Mark Attorney representing Respondent could not find the passages from the real cases cited during the Hearing, another nudge to a potential misapplication of AI prompts in drafting the skeleton arguments.

Johnson was quick to conclude that any litigant-in-person was still under a duty not to mislead the court including relying on fabricated law.

II – UK precedence

In their decision, Johnson quoted a case which was one of two referred to the High Court – Ayinde v London Borough of Haringey and Al-Haroun v (1) Qatar National Bank QPSC and (2) QNB Capital LLC[19] – in two instances unrelated to intellectual property, but relevant to conduct in legal proceedings under UK law.

The Claimant in the "Al-Haroun" case against the Qatar National Bank advanced 18 hallucinated cases, and fabricated quotes of the remaining 27, admitting they had not only used commonly available (public) AI tools, but had provided the hallucinations to their solicitor. Dame Sharp - president of the King's Bench Division - handing down the judgement commented at Paragraph 79 on the conduct of the lawyers averring it was *"extraordinary that the lawyer was relying on the client for the accuracy of their legal research, rather than the other way around."*

In parallel, the Claimant's representative (a pupil barrister) in the "Ayinde" case (Ayinde v London Borough of Haringey [2025] EWHC 1040 (Admin)) challenged the London borough of Haringey with 5 fabricated cases allegedly created by AI. The barrister could not provide a coherent explanation of how the cases were created in her pleadings during the hearing. Dame Sharp also alluded to how presenting untrue information before her was deemed contempt of court, not least for the negligence of AI hallucinations appearing. Dame Sharp subsequently issued a wasted costs order to the Claimant (the Defendant having been previously barred from pleading during the Hearing).

[18] ProHealth Inc v Pro Health Solutions Ltd BL O/0559/25.

[19] Ayinde v London Borough of Haringey and Al-Haroun v (1) Qatar National Bank QPSC (2) QNB Capital LLC ([2025] EWHC 1383 (Admin)).

Other notable UK cases of AI hallucinations[20] include the appeal dismissal of a litigant-in-person in Harber v Commissioners for HMRC [2023] UKFTT 1007 (TC), the admission of the use of AI to find cases by the litigant-in-person in Zzaman v HMRC [2025] UKFTT 00539 (TC), the Appellants instructed by an anonymous German lawyer in Olsen & Anor v Finansiel Stabilitet A/S [2025] EWHC 42 (KB), and Dr. Wright in a copyright, goodwill and database case Crypto Open Patent Alliance v Wright [2024] EWHC 1198 (Ch).

III – Hallucination technology

The reliance on precedence under UK Common Law results in an acute need for lawyers to double check any citation or quote provided by AI tools, at the cost of otherwise being found guilty of contempt of court, but how do these hallucinated cases come to be, and proliferate?

The use of AI in legal tech is now commonplace (Lexis+ AI, Case text, Harvey, etc.)[21] because natural language processing (NLP) models summarise case law and draft pleadings at unprecedented speeds. NPL models rely on probabilistic language prediction with no deductive reasoning, to an extent where a string of words can appear credible at the outset, but is factually inexistent or is never explicitly cited in existing legal cases.

There are four factors which come into effect when examining the production of hallucinations computationally.[22] The first is that AI technology using transformer neural networks relies on the probability of a sequence of words, over mere copying of words in a "quoting" or citing fashion of a legal case. The second is that the AI models are at times trained on outdated legal statutes, resulting in historically inaccurate corpus bias. The third is that the AI models - which are not retrieval-based - rarely differentiate between legal databases. In effect, this means that the models are unable to distinguish the relative legal weight of their sources (for example, quoting an article on an Internet search with equal importance as the Parliamentary acts found on the UK government website, or Common Law judgements found in BAILII). Fourthly, the AI models can train recursively (i.e. train on AI-generated content), which means that *"first generation"* hallucinations can easily proliferate, creating an avalanche of false citations.

IV – A global affair

The UK's stance on AI in legal tech stands in stark contrast to the US, where the use of AI in proceedings has become somewhat prevalent, so much so that US courts are now pushing for formal AI-disclosure certificates[23] in so-called "Show-Cause Orders".

Mata v. Avianca, Inc., 678 F. Supp. 3d 443 (S.D.N.Y. 2023) is the landmark case where Judge Castel handed two New York lawyers a fine of $5,000 after they had openly admitted to using ChatGPT for their case summaries, full of hallucinations.

There has been a number of rulings since 2023 in numerous other jurisdictions on the use of AI by parties during proceedings, some of which have found contempt of court, even criminal charges.[24] The former include Denmark, Canada, Australia, and even the Cayman Islands in the more recent Bradley & Chuang v Linda Frye-Chaikin [2025].

V – The future of AI in British courts

Despite the Courts & Tribunals Judiciary issuing its *"Artificial Intelligence Guidance for Judicial Office Holders"* in December 2023 (which was updated in April 2025), the majority of regulatory bodies in the UK are yet to issue clear guidance on the use of AI in legal professional services. Significant hurdles arise when scrutinising incidents of hallucinations, client data confidentiality, and the integrity of agents.

One should follow Johnson's advice in the appeal decision of ProHealth Inc v Pro Health Solutions Ltd in that *"a very clear warning needs to be given to make even the most nervous litigant aware of the risks they are taking"*, possibly in any correspondence from the UKIPO. This mirrors Dame Sharp's judgement in the referral of the Al-Haroun and Ayinde cases when she

[20] Tom Whittaker, *"A cautionary tale of using AI in law; UK case finds that AI generated fake case law citations,"* December 18, 2023.
[21] Tahir Khan for The Barrister Group, *"Law, Lies, and Language Models: Responding to AI Hallucinations in UK Jurisprudence"*, June 12, 2025
[22] Jain C., Singh S., Jain D., for Chambers and Partners, *"AI Hallucinations: When Creation Comes At A Cost, Who Pays?"*, April 29, 2025.
[23] John Barwell for Legal Lens, *"AI in the Dock: UK courts keep justice human while US lawyers face sanctions"*, August 5, 2025.
[24] Yeshwant Legal Associates, *"Lawyer Face Penalties for submitting fake AI citations worldwide."*, July 20, 2025.

warned that there are *"serious implications for the administration of justice and public confidence in the justice system if artificial intelligence is misused"*.

Both authorities directed their words at both litigants-in-person and legal representatives, the latter of which have a fiduciary duty to at the very least authenticate the veracity of any citation generated by AI. Indeed, it can only be concluded that the sole use of AI for creation of court documents cannot be relied on for citing jurisprudence or correctly interpreting the latter.

Those in leadership positions and regulating the legal profession ought to therefore ensure that systems are in place for checking any work generated by AI.[25] Regulators are to provide guidance so the legal professions can be more transparent if AI is used, elsewise said professions fall amidst an erosion of transparent reasoning.

As the Divisional Court emphasised in Ayinde v London Borough of Haringey and Al-Haroun v (1) Qatar National Bank QPSC and (2) QNB Capital LLC: *"The facts of these cases raise [...] broader areas of concern however as to the adequacy of the training, supervision and regulation of those who practice before the courts"*.

As more law firms and practitioners embrace newfound technology, a cautionary tale unfolds before the courts, not least because IP & technology courts are at the forefront of regulating AI in the first place.[26]

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[25] Local Government Lawyer, *"Senior judges fire warning over misuse of AI before courts and tell those in profession with leadership responsibilities to take practical measures to prevent it happening"*, June 6, 2025

[26] The author sits on the AI & Tech Committee for CITMA (the Chartered Institute of Trade Mark Attorneys).

UPC Substantive Law - Comparisons With the EPO and National Courts

This article is part of a new 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.

Yellow Sphere vs. Knaus Tabbert clarifies the interpretation of product-by-process claims at the UPC

Yellow Sphere vs. Knaus Tabbert (UPC_CFI_50/2024) is the first decision to deal with the interpretation of product-by-process claims at the UPC. Claim 1 of the patent recites the feature *"wherein the structural element is produced as a casting in a mould, and the mould reproduces the three-dimensional outer shape of the structural part"* (translation). The Defendant argued that their product did not infringe the patent, as they used two moulds for production contrary to the requirement to use "a" [single] mould based on Defendant's claim interpretation.

The Court considered this to be a product-by-process feature, and held that for such features the technical content does not reside in the process as such, but in the technical properties imparted to the product by the process. The decisive factor is therefore how the person skilled in the art understands the information on the manufacturing process and what conclusions he draws from this with regard to the nature of the product according to the invention. The scope of protection is determined by the product's properties, as understood by the skilled person, rather than a literal adherence to the specific process steps described. The Court rejected the Defendant's argument that their product, which was produced using two moulds, did not infringe the patent, as the resulting product still exhibited all features of the claims.

Whilst the EPO does not rule on infringement, its interpretation of product-by-process claims for the assessment of validity is consistent with the UPC ruling. In particular, when a product is defined by its method of manufacture, the question to be answered is whether the product under consideration is identical to known products. In order to distinguish a claim over the prior art with a "product-by-process" feature, the applicant has to show that the modification of the process parameters results in another product, for example, by showing that distinct differences exist in the properties of the products which are imparted by the process (see EPO Guidelines for Examination F-IV, 4.12).

The UPC approach is also consistent with the approach applied by the German courts.

However, the UPC approach in this respect differs from national courts such as the UK, where product-by-process features are assessed differently for validity and infringement. For validity, the claims are interpreted in line with the EPO's approach above. However, for the purposes of infringement a narrower interpretation is applied. In particular, a product-by-process claim using *"obtained by"* language is interpreted to mean that the product must be obtained by that recited process. The term *"obtainable by"*, on the other hand, is given a broader interpretation (see Hospira v. Genentech, [2014] EWHC 3857 (Pat)).

LD Düsseldorf provides further guidance on claim interpretation

In the first-instance decision regarding the infringement action of 10x Genomics vs Curio Bioscience (UPC_CFI_140/2024), the LD Düsseldorf provides further guidance on claim interpretation – and its limits – at the UPC (see para. 66-90). While acknowledging that, from a functional perspective, the release of nucleic acid from an intact (i.e., an ordered) array may not be required for obtaining transcriptional information in accordance with the patent in suit, the Court emphasizes that the person skilled in the art should not only take into account such functional considerations.

They consider that, in the present case, these functional considerations cannot be reconciled with the clear wording of the claim, according to which an intact array is required in the release step. And, since Art. 69 EPC should not be understood to mean that the claims serve only as a guideline and that the protection actually conferred may extend to what a skilled person would have thought of when considering the description and drawings, the Court decides that the clear wording of the claim prevails, so that claim 1 is not infringed.

The primacy of the claims, which the LD Düsseldorf emphasizes in this decision, is already well-established at the EPO. Also the fact that the description and the drawings must always be taken into account for interpreting the claims has now been confirmed by both the UPC and the EPO. In the recently published decision G 1/24, the EPO's Enlarged Board of Appeal held that: "The claims are the starting point and the basis for assessing the patentability of an invention under Articles 52 to 57 EPC. The description and drawings shall always be consulted to interpret the claims when assessing the patentability of an invention under Articles 52 to 57 EPC, and not only if the person skilled in the art finds a claim to be unclear or ambiguous when read in isolation." It thus seems like the UPC and EPO are finding common ground on the principles of claim interpretation.

CD Paris decides that subject-matter not complying with generally accepted laws of physics lacks industrial application according to Art. 57 EPC

In Lindal Dispenser GmbH v. Rocep-Lusol Holdings Limited (ACT_24460/2024, UPC_CFI_202/2024), the CD Paris dealt with the issue of industrial applicability expressly relying on principles developed by the EPO. They referred to EPO Board of Appeal decision T 541/96, which held that the requirement of industrial application stipulated by Art. 57 EPC is not met if subject-matter does not comply with generally accepted laws of physics; in such a case, it cannot be used and therefore lacks industrial application.

Although claim 1 was found to meet this requirement, dependent claim 5 – defining that "in the second exhausted position the mixture of a liquid propellant and a compressed gas are at a pressure equal to the vapour pressure of the liquid propellant" – did not comply with Art. 57 EPC. In particular, the CD Paris agreed with claimant that the mixture of a liquid propellant and a compressed gas can never be at a pressure equal to the vapour pressure of the liquid propellant alone in the second exhausted position (points 42 and 43 of the decision), seemingly because the partial pressure of the compressed gas will also contribute to the total pressure when both liquid propellant and compressed gas are present.

The patent was maintained based on an auxiliary request in which this claim was deleted. Thus, similar to EPO practice on sufficiency, the UPC finding that a dependent claim is unworkable does not impact the independent claim (see T 2920/18, reason 2.6).

EPO case law was also influential in assessing post-published evidence for industrial applicability of claim 1. Claimant argued that Defendant's video was post-published evidence and, per the decision G 2/21 of the EPO's Enlarged Board of Appeal, could not remedy the requirement that a disclosure of the invention has to be sufficiently clear and complete for it to be carried out by the person skilled in the art. The CD Paris rejected this, distinguishing the present case from G 2/21, where the technical effect was not credible without experimental data. This approach will seem familiar to EPO practitioners.

LD Hamburg on the relevance of technical fields of prior art documents

In decision Nera Innovations Ltd. vs. Xiaomi Communications Co. Ltd. et al. (UPC_CFI_173/2024 und 424/2024), the LD Hamburg discusses the relevance of prior art documents belonging to different technical fields than the patent.

The court takes the view that the distance of the technical field of D5 from the claimed invention is a relevant factor in assessing novelty. In particular, at C.II.6.b (i.e., on pp. 56-57), it was discussed that it is not absolutely necessary for a prior art document to address the same problem as the patent in suit in order to be prejudicial to novelty, but that the completely divergent problem of D5 prevents the skilled person from referring to this document. Ultimately, the decision does not turn on this point because D5 does

not disclose all features of the claim. But if followed generally at the UPC this would certainly be a significant departure from EPO practice where even documents in distant technical fields can be novelty destroying (see Case Law of the Boards of Appeal I.C.4.11).

While this discussion of the technical problem addressed by D5 when assessing novelty is surprising, it may have been intended as an introduction to the reasoning of the court regarding inventive step. The defendants argued that the solution of the patent would be obvious starting from D5 in combination with D6. The court did not follow this, again accentuating, by referring to the preceding elaborations, that the completely diverging task of D5 prevented the skilled person from considering this prior art document as a starting point (C.II.7.bb)). This approach of the court of assessing suitability of a document to qualify as a closest prior art appears to be in accordance with the EPO's practice of considering the closest prior art to generally correspond to similar use and to require the minimum of structural and functional modifications to arrive at the claimed invention.[27]

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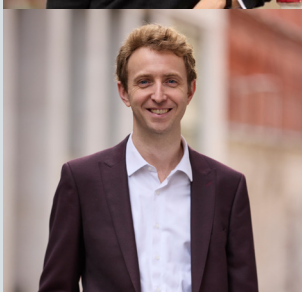
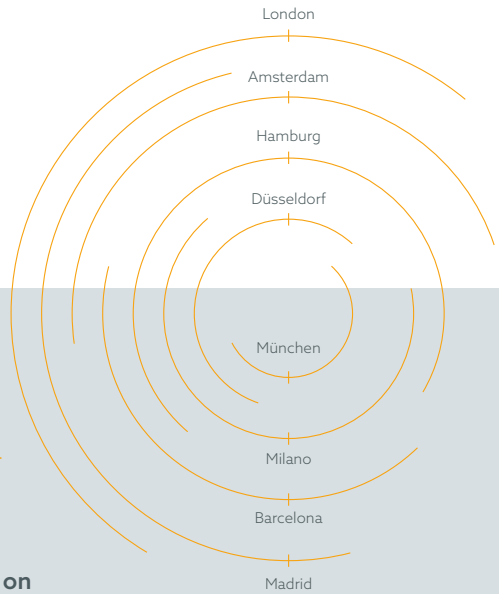


[27] Sebastian Giese, Danche Spirkoska Jovanov, and Sebastian Rennebaum also contributed to this article.



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