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Editorial

As winter leaves us behind, we are looking forward to an exciting spring on the IP front. This edition of the newsletter reviews some interesting decisions from the UPC, the use of AI tools at the UKIPO, EPO and USPTO, and other developments that I am sure you will find of interest. I also take this opportunity to invite you to our webinar on European biotechnology patent case law which will take place on 24 February 2026. Details of upcoming webinars are provided on the final page of this newsletter.

Simon O'Brien, Editor

Events

European biotech patent case law
Webinar, 24 February 2026
Join European Patent Attorneys Simon O'Brien and Nathaniel Wand to catch up with new and important EPO biotechnology-related patent case law.

Climate Technology Show
24-26 March 2026, London UK
Andrew Cockerell and Joseph Flood will be attending this high-impact global platform for innovation in climate tech.

Patent open day
07 April 2026
Our patent open day (electronics, engineering, physics, computer science) is open to undergraduate and postgraduate students. A rarity amongst IP firms, this is a chance to gain a true insight into life as a patent attorney.

UPC case law, observations & analysis
Webinar, 17 June 2026
Our expert speakers, UPC representatives David Al-Khalili, Rachel Bateman and Sophie Slater will provide you with the most up to date UPC observations and analysis.

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Artificial intelligence

Use of AI tools at the UKIPO, EPO & USPTO
Improving efficiency, consistency, and search quality

Artificial intelligence (AI) tools are increasingly being explored by patent offices worldwide as a means of improving efficiency, consistency, and search quality. For patent applicants and attorneys, understanding how these tools are used, and just as importantly how they are not used, is essential. This article considers the current position at the UK Intellectual Property Office (UKIPO), the European Patent Office (EPO) and the United States Patent and Trademark Office (USPTO).

All three offices stress the continued importance of human judgment emphasising that patent examiners, and indeed applicants, must critically assess any outputs generated by AI-assisted tools. The review below gives examples of current tools being developed and used by the offices.

UKIPO

SEARCH (patent examiner search tool)
The UKIPO's internal patent search platform is branded SEARCH. SEARCH is described by the UKIPO as using "AI-driven concepts" to produce results ranked by similarity and for the first time by relevance. The tool is intended to help examiners analyse and refine searches as they progress.

Conceptually this tool acts to support an examiner in more efficiently identifying prior art but leaves the detailed critical analysis of the documents with the examiner. As such it should help free up patent examiners to spend more time on their substantive analysis.

AI allocation tool (internal case allocation/routing to examiners)
The UKIPO has also disclosed that it is now using a "new AI allocation tool" within its digital services, which automatically allocates patent applications to examiners with the appropriate technical expertise. The UKIPO states that the tool can instantly complete a task that previously took 14 days.

Automated case allocation is a relatively low-risk application of AI within the UKIPO. The tool acts to reduce the behind the scenes administrative burden of handling patent applications while simultaneously speeding up processing. As with SEARCH, substantive analysis of applications remains with examiner.

Check if you could register your trade mark tool (public-facing AI tool, trade marks)
On the trade marks side, the UKIPO offers a public-facing pre-application tool designed to help applicants identify a number of preliminary issues and check for potentially conflicting marks. The tool uses AI across computer linguistics and computer vision, including embedding-based similarity searching of both text and image marks.

While this tool is helpful as an early-stage screening mechanism for identifying obvious conflicts or descriptive issues, at present its analysis remains very limited and its output should not be mistaken for clearance advice.

EPO

ANSERA (patent examiner search tool)
The EPO describes ANSERA as its highly sophisticated search tool, enabling rapid search and analysis of very large document sets, using concept-based search strategies directed by the examiner.

As with SEARCH at the UKIPO, ANSERA acts to support an examiner in more efficiently identifying prior art but leaves the detailed critical analysis of the documents with the examiner.

Legal interactive platform (LIP) (generative-AI legal search in MyEPO)
The EPO recently announced the launch of the legal interactive platform (LIP) within MyEPO services, describing it as the first generative AI-based tool added to that suite. The EPO explains that users can query in conversational language and receive structured responses with summaries and links, drawing from selectable sources such as the EPC, EPC Guidelines, PCT-EPO Guidelines, and Boards of Appeal materials.

While such a tool has a lot of potential, in our testing we unfortunately identified numerous errors and hallucinations in its output. As such, this tool is better thought of as a navigational aid at present, providing helpful suggestions

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UK Supreme Court grants leave for landmark AI patent appeal:
dycip.com/ai-supreme-court-appeal

How are patent offices worldwide developing and using AI tools?

of possible legal references rather than as an authoritative interpreter of law.

AI-assisted minute writing for oral proceedings
The EPO has also recently announced a pilot for drawing up minutes of oral proceedings held by videoconference with the assistance of AI. The EPO's Official Journal notice is explicit that ultimate responsibility for the accuracy of the minutes remains with the competent division, and that recordings and transcriptions used to support minute drafting must be deleted once the minutes are issued.

This tool helps reduce the administrative burden on the division when drawing up minutes while leaving final responsibility firmly with the division. We anticipate this tool should reduce delays in the production of minutes while improving accuracy.

CPC text categoriser (AI-powered CPC symbol prediction)
The EPO provides an AI-powered classification aid that suggests appropriate cooperative patent classification (CPC) coding for a provided technical description. CPC coding is useful for performing patent searches and identifying potentially relevant patents and patent applications.

While potentially a helpful tool, great care must be taken not to input any confidential/unpublished subject matter into this tool as the EPO explicitly sets out that information entered into the tool is not kept confidential by the EPO and therefore risks being treated as a public disclosure.

Patent Translate (machine translation for patent documents)
The EPO's Patent Translate is a machine translation service developed with Google and intended specifically for use with patent documents. The tool provides translations of patent documents in 32 languages. EPO examiners regularly rely on these translations during prosecution.

Since its introduction in 2012 Patent Translate has become an indispensable tool, with its translations often being sufficient during prosecution to allow for the examiner and applicant to analyse a document's technical content.

USPTO

SimSearch (patent examiner search tool)
SimSearch forms part of the USPTO's examiner-search environment, patents end-to-end (PE2E) search. The tool uses trained AI models to output a list of domestic and foreign patent documents similar to the application being searched, with the ability to refine the search using CPC classifications and examiner-selected passages from the application.

Similarly to the approach being taken at the UKIPO and EPO, SimSearch acts as an assistive tool for the examiner in efficiently identifying prior art but leaves the detailed critical analysis of the documents with the examiner.

ASAP! (artificial intelligence search automated pilot program)
Very recently, in October 2025, the USPTO launched a pilot called ASAP! The pilot conducts an automated search of a patent application prior to examination and issues an automated search results notice (ASRN). The USPTO notes that applicants are not required to respond to an ASRN, but may choose to act (for example, by filing a preliminary amendment, deferring examination, or abandoning the application) in light of the cited art.

ASAP! is potentially the most ambitious of all the tools listed in this article. While in no sense a substitute for a full review by an examiner, if ASAP! proves during the pilot to work as promised it could perform a similar function to the UKIPO's "check if you could register your trade mark" tool in helping to identify obvious issues at an early stage.

Conclusion

Across all three offices, the pattern is consistent: AI is being used to identify potentially relevant material faster (similarity/relevance ranking), make classification more accessible (CPC suggestions), and reduce language friction (machine translation). However, at least for the time being, the offices continue to anchor responsibility with the human examiner and on the patentee side, with the applicant or their representative. This is consistent with our approach to any potential use of AI, which will ensure that our attorneys retain absolute responsibility for the output of any tools.

If you have any questions on this subject, or would like assistance with protecting your invention, please contact your usual D Young & Co representative.

Author:
Anton Baker

Double territoriality
Indirect infringement under the UPC

Case details at a glance
Jurisdiction: UPC
Decision level: Milan Central Division
Parties: Maschio Gaspardo SpA (claimant) and Spiridonakis Bros GP(defendant)
Registry citation: ORD_17811/2025
Order/decision: ORD_17812/2025
Date: 25 June 2025
Decision: dycip.com/upc-ord-17811-2025

In a recent decision (ORD_17811/2025) the Milan Central Division of the Unified Patent Court has provided important clarification on the so-called "double territoriality" requirement for indirect infringement under Article 26 of the Unified Patent Court Agreement (UPCA), confirming that this requirement is met when the offer and the act of putting into effect are established with respect to the territory of the contracting member states where the European patent is valid. This interpretation has the potential to broaden enforcement options against cross-border online sales and supply chains.

Background of the case

The patent at issue (EP 1 998 604) was filed 29 March 2007 in the name of Maschio Gaspardo. Maschio Gaspardo is an Italian multinational company active in the development, production and marketing of agricultural equipment (including agricultural equipment for soil cultivation).

EP 1 998 604 relates to a reversable tool for agricultural subsoilers and is validated in France, Turkey, Italy, Germany, Romania, Czech Republic and Bulgaria.

Maschio Gaspardo (the claimant) stated that the Greek company Spiridonakis Brothers (the defendant) offered for sale, distributed and advertised a product under the name "Bellota tool", which, Maschio Gaspardo stated, was a counterfeit of the product covered by EP 1 998 604.

Accordingly, Maschio Gaspardo sought relief against this alleged infringement.

Infringement: the law

Under Article 25 UPCA, direct patent infringement occurs when a third party (not having the proprietor's consent) performs an act of making, offering, placing on the market or using a product which is the subject-matter of the patent. However, even if direct patent infringement cannot be shown, indirect patent infringement under Article 26 UPCA may still occur.

Article 26 UPCA provides the right to "prevent any third party not having the proprietor's consent from supplying or offering to supply, within the territory of the Contracting Member States in which that patent has effect, any person other than a party entitled to exploit the patented invention, with means, relating to an essential element of that invention, for putting it into effect therein, when the third party knows, or should have known, that those means are suitable and intended for putting that invention into effect."

> The key legal question was whether indirect infringement under Article 26 UPCA could be established when the offer of supply occurred in **several** contracting member states but the putting into effect of the invention occurred in only one of these states.

Interpretation of double territoriality

In a decision by default, the Milan Central Division found that direct infringement had taken place in view of the sale, distribution and advertisement of the Bellota tool by the defendant. However, despite this finding of direct infringement, the court devoted considerable analysis to the question of potential indirect infringement (in case a slightly different interpretation of the claim wording was taken).

The Bellota tool (which was considered at least an essential element of the invention) could be ordered online from contracting member states Germany, Italy, France and Bulgaria, for shipment to Bulgaria. Therefore, the Bellota tool was supplied within the territory of a contracting member state in which that patent has effect, namely in Bulgaria, for putting into effect there. In other words, since the Bellota tool was offered in Bulgaria for putting into effect in Bulgaria once delivered, the double territoriality requirements were met (with respect to Bulgaria).

> However, the court yet further confirmed that the double territoriality requirements would also be satisfied also with respect to the other contracting member states of Germany, Italy and France, even though the Bellota tool was not available for shipment to those contracting states.

In particular, the court confirmed that the double territoriality requirements of Article 26 UPCA are met where the offer and the putting into effect are established with regard to the territory of the contracting member states where the European patent is valid. It is not necessary that both acts (the offer and the putting into effect) occur in the same contracting member state.

Accordingly, the offer to supply in, say, Germany (where the Bellota tool could be ordered online) for putting into effect in Bulgaria (where the Bellota tool could be shipped to) also amounted to indirect infringement of the patent at issue.

Therefore, in addition to direct infringement, the court found that indirect infringement had taken place. Even if a slightly different construction of certain elements of the claim meant that direct infringement was not accepted, the defendant's conduct would still qualify as indirect infringement of EP 1 998 604, both in Bulgaria and in the other contracting member states of Germany, Italy and France.

Conclusion

This decision provides an important clarification on the interpretation of the double territoriality requirement for indirect infringement under Article 26 UPCA. By rejecting a narrow interpretation of this requirement, the court has broadened enforcement options against cross-border online sales and supply chains.

Author:
Simon Schofield

The EPO's approach to supporting data from the perspective of statistics
T 2036/21 & T 1863/21

Case details at a glance

Jurisdiction: EPO
Decision level: Technical Board of Appeal
Parties: NV Nutricia (applicant) and Fresenius Kabi Deutschland GmbH; Société des Produits Nestlé SA
Citation: T 2036/21
Date: 24 October 2023
Decision: dycip.com/epo-t2036-21

Jurisdiction: EPO
Decision level: Technical Board of Appeal
Parties: NV Nutricia (applicant) and Société des Produits Nestlé SA
Citation: T 1863/21
Date: 29 April 2024
Decision: dycip.com/epo-t1863-21

It is established European Patent Office (EPO) case law that proceedings before the EPO are conducted with the principle of free evaluation of evidence, which means that there are no firm rules according to which certain types of evidence are, or are not, convincing. In this article, we discuss two medical use cases which show that the EPO does not necessarily require a statistically significant effect to be shown or even for a statistical analysis to be carried out on supporting data.

T 2036/21 concerns compositions for use in the prevention or delay of the onset of dementia in a person having characteristics (biomarkers) of a prodromal dementia patient. The opponent asserted that post-filing clinical trial data provided evidence that the claimed composition neither prevented nor delayed onset of dementia at the prodromal stage.

The Technical Board of Appeal pointed out that the clinical trial data did not convey to the skilled person the message that "the tested composition is unsuitable for preventing or delaying the onset of dementia in a prodromal patient", but rather that "this effect was not detected, possibly because the clinical trial was not designed and adequately powered to do so". In particular, the board highlighted that the crucial point which has to be decided is whether further evidence is available which makes it credible that the claimed composition is suitable for preventing or delaying the onset of dementia in a prodromal patient. Even if the tests aimed at assessing an endpoint of a clinical trial do not yield a statistically significant outcome, other results may still be taken into account to evaluate the efficacy of a treatment. In some cases, these may provide valuable information in relation to the endpoint for which no significant results were observed.

The board confirmed that the established case law principle of the free evaluation of evidence applies universally in proceedings before the EPO when assessing any means of evidence and there are no reasons not to apply this principle when deciding whether it is credible that a compound or composition induces a therapeutic effect. Moreover, following G3/97, the board emphasised that in proceedings before the EPO it is not a prerequisite to perform a statistical analysis of the results and to determine a specific confidence interval. This contrasts to the requirements of biomedical research and of health authorities granting marketing authorisations for medicinal products, where conclusions are only drawn if there is a high degree of statistical confidence.

Does supporting data need to show a statistically significant effect?

In T 1863/21 the claims at issue were medical use claims which broadly relate to enhancing oral tolerance against dietary proteins using non-digestible oligosaccharides which enhance the oral tolerance-inducing effect of the partially hydrolysed proteins. The examples in the description used a specific blend of three non-digestible oligosaccharides. To support its assertions that the invention was sufficiently disclosed over the whole scope, the proprietor filed further experimental data using a combination of two non-digestible oligosaccharides. The opponent late-filed a statistical analysis of the post-filing data and asserted that no statistically relevant results could be drawn.

The EPO did not admit the late-filed analysis and the board went on to state that statistical significance is not and should not be the sole criterion for considering experimental results, let alone for excluding them from consideration. Moreover, the board confirmed the principle discussed in T 2036/21 that it is not a prerequisite to perform a statistical analysis of the results and to determine a specific confidence interval in order to consider a certain piece of evidence convincing, as is most often required in biomedical research and by health authorities granting marketing authorisations for medicinal products. In particular, statistical significance quantifies the probability that an observed difference in data is not a random occurrence, hence the lack of statistical significance does not in itself prove the null hypothesis. The board concluded that the lack of statistical significance does not automatically render a demonstrated effect implausible for the purposes of a legal assessment.

Key takeaway

The EPO recognises that the standard for supporting data for patents and patent applications does not need to be as rigorous as that required by regulatory authorities or peer-reviewed journals.

Author:
Stephanie Wroe

Protecting your after-market
Part 2: repairs

Maintenance and repair are essential for prolonging the use of any heavy plant, production line, or farming equipment. Moreover there are often specific components that are more likely to fail than others; for example plastic components may weaken due to prolonged chemical or UV exposure in agritech and construction settings.

There is a general expectation that the owner of a product has a right to repair it, although this can often come up against practical hurdles (for example when trying to repair a phone with glued-down components).

IP law recognises this to an extent; for example, UK design rights include exemptions for elements of an object that must fit or must match other elements to fulfil their purpose, and similarly "where a registered product is a component part of a complex product, it is not an infringement to use that part in repairs to restore the original appearance of the complex product", all of which helps the spare-parts market.

However, there is a fine line between repairing a product and re-making it, and this is an important distinction for patents because whilst there may be an implied licence to repair, and an exhaustion of patent rights in the sold product, the act of making is a patent infringement *per se* and the sale of a patented article cannot confer an implied licence to make another one, or exhaust the right of the patentee to prevent others from being made. In other words, the right to repair an old product does not give you the right to make a new one, even from old parts.

How this fine line between repairing and re-making can be found has been explored several times in the courts.

United Wire v Screen Repair Services

In the case of United Wire v Screen Repair Services [2001] RPC 24, United Wire made sifting screens for recycling expensive drilling fluid used in the offshore oil-drilling industry. These screens could accumulate particulates over time, but avoided the problem of clogging by mounting two different filter meshes on a frame with different tensions, so that when the frame was vibrated the meshes responded differently and bashed into each other, helping to dislodge detritus. United Wire's patent claimed the screen as a frame with the meshes secured to it having differential tensions.

The meshes often became torn in use, and could not easily be patched. As a result there was a profitable aftermarket for United Wire in replacement screens. Screen Repair Services chose to compete in this market by selling reconditioned screens made with United Wire's frames and new filter meshes.

Lord Hoffmann noted in this case, "As a matter of ordinary language, the notions of making and repair may well overlap. But for the purposes of the statute, they are mutually exclusive", for the reason that making is a patent infringement *per se* as mentioned above.

In the present case, it was considered fairly clear that the defendants had made the patented product. They had repaired or reconditioned the frame, and then used that frame to make a screen as claimed with new meshes, in exactly the same way as if they had bought the frames as components from a third party.

In the judgment, it was stated that "the screen was the combination of frame and meshes pre-tensioned by attachment with adhesive according to the invention. That product ceased to exist when the meshes were removed and the frame stripped down to the bare metal. What remained at that stage was merely an important component, a skeleton or chassis, from which a new screen could be made".

So this case established that it was more important to ask if the product was being made than if it was being repaired, given that these concepts could overlap in real life but not in law, but the facts of the case left little room for nuance. Subsequently however, this issue was revisited in Schütz v Werit [2013] UKSC 16.

Schütz v Werit

The case of Schütz related to an intermediate bulk container "IBC" that is essentially a plastic bottle in a steel cage, such as the one shown below, and commonly used in agriculture, construction, and liquid delivery. These IBCs can withstand 1000 litres of liquid sloshing without buckling, cracking, or leaking, and can handle six tonnes when stacked.

Image source, Schütz (UK) Limited v Werit (UK) Limited: dycip.com/schutz-werit

Despite being tough, often however the bottle cannot be reused; for example if it contains toxic residue from a previous load. Even if it can be reused, the cage typically has a longer (5-6x) lifespan than the bottle itself.

So here the bottle is not a wholly subsidiary consumable component (like a coffee pod in a coffee machine), and is essential to the formation of the claimed IBC. However, as a general principle there is clearly a question of degree and a case-by-case threshold for this distinction. As the final judgment put it, "the bottle can fairly be said to be a relatively subsidiary part of the article, viewed as a whole", for example due to the lower life expectancy of the bottle and its being made of plastic rather than metal. Put another way, given the cage has a much greater life expectancy than the bottle, a purchaser of an IBC might well expect to be able to replace the bottle even though it is not a

Cases cited in this article

United Wire Limited v Screen Repair Services (Scotland) Limited and Another and Others, 20 July 2000: dycip.com/united-wire-screen-repair

Schütz (UK) Limited v Werit (UK) Limited, 13 March 2013 (PDF): dycip.com/schutz-werit

Related articles

Making or Repairing? Guidance from the Supreme Court, 09 April 2013: dycip.com/patent-make-repair-schutz-werit

Protecting your after-market. Part 1, consumables: dycip.com/after-market-consumables

For patents, there's an important distinction between repairing a product and re-making it

conventional "consumable" of the IBC.

Consequently there is a market for replacing old bottles and repairing any damage to the cage. Here, "rebottling" uses original equipment manufacturer (OEM) bottles from Schütz, whilst "cross-bottling" uses bottles from a different source. In this case, Werit was reconditioning Schütz IBCs using bottles from a different source; "Delta".

However Schütz was concerned not just with price competition but also scope for reputational damage if other less reliable bottles were used in an ostensibly Schütz IBC.

Much like United Wire's patent to a complete screen made of a frame and mesh filters, Schütz's patent was directed to a complete IBC made of a cage and bottle. Again, the part at issue was the one that required regular replacement.

One notable difference however was that the inventive aspect of the IBC claim related to flexible weld joints in the cage to increase its strength and durability. Hence the part being reconditioned was not the part conferring the inventive step, contrary to the case in United Wire.

As noted in the final judgment, "In this case, the replaced part, the bottle, is a free-standing item of property, which does not include, or relate to, the inventive concept. In United Wire, the replaced part, the wire mesh system, had no independent identity from the retained part, the frame".

Hence whilst in United Wire it was possible to say that the original "product ceased to exist when the meshes were removed", it has held "in this case there are, as it were, two products […], and one of them, which is significantly longer lasting, more substantial, and the only inventive component, certainly does not cease to exist".

As a result, it was held that replacing the bottle, and doing no more than routine repairs to the cage, did not constitute making the patented article.

We can take from this that whilst one can repair a patented article, this does not extend to the point at which one makes or re-builds the product of the invention *per se*. In the case of United Wire, this happened when new meshes were added to old frames as the meshes conferred the inventive step and were instrumental in creating benefit of the patented screens, whereas it did not happen in Schütz when new bottles were added to old cages, because the inventive step resided in the cages and adding a different make of bottle was not instrumental to increasing the strength and durability of the cage welds.

Meanwhile the third scenario, where the inventive step resides in how two components interact, is a separate question in part answered by the earlier article in this short series, focusing on consumables, and in part answered by the final article in the series, focussing on plug-and-socket (or transmitter-and-receiver) type inventions.

Author:
Doug Ealey

You can catch up on part one of this series of articles, "Protecting your after-market. Part 1: consumables" on our website: *dycip.com/after-market-consumables*

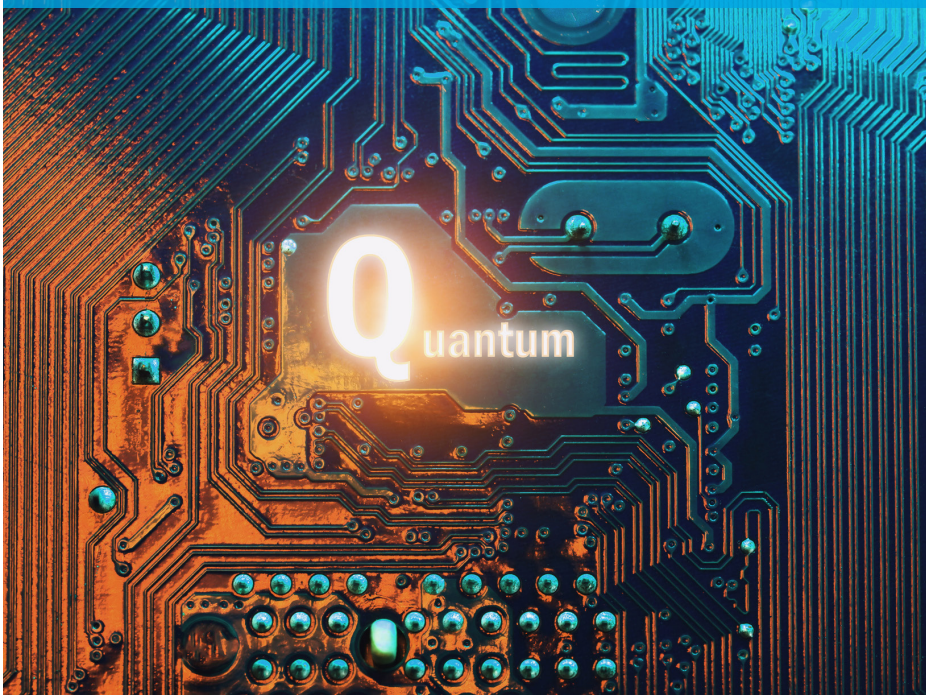
After the International Year of Quantum

What comes next for the patent and investment landscape?

The International Year of Quantum Science and Technology (IYQ) in 2025 marked a symbolic milestone for a field that has long sat at the intersection of fundamental physics and future commercial promise. Over the past year, quantum technologies moved firmly into the mainstream of government strategy, industrial planning and investor attention. As that spotlight fades, the focus is now shifting from awareness to execution.

A comprehensive joint study by the European Patent Office (EPO) and the Organisation for Economic Co-operation and Development (OECD) provides a timely snapshot of the quantum ecosystem at this transition point. Drawing on patent data, firm formation, investment flows, skills demand, trade and public policy, the report offers a detailed view of how quantum innovation is developing globally, and what that means for companies seeking to protect, fund and commercialise their technology.

Intellectual property will be central to the strongly innovative quantum landscape



US leading the pack, but Europe catching up

The global quantum landscape remains led by the USA. It accounts for the largest share of quantum patenting, the highest number of firms entering the field, and a disproportionately large share of total investment. Around 60% of all recorded funding to quantum companies has gone to US-based firms, driven primarily by significantly larger average deal sizes rather than by a greater number of investment rounds.

From an IP perspective, this dominance has two important consequences. First, US-based companies are more likely to build large, well-funded patent portfolios early, often with broad international coverage. Second, later-stage investment allows those portfolios to be reinforced over time through divisional and continuation filings, follow-on applications and strategic acquisitions.

That dominance, however, is shrinking. The US share of global quantum international patent families has declined in recent years as activity in Europe and parts of Asia has accelerated. Europe's contribution to quantum patenting has steadily grown, led by Germany, the United Kingdom and France, and Europe now accounts for around 25% of all quantum international patent families, compared with approximately 30% for the US. While European firms generally attract less capital per deal than their US counterparts, Europe now hosts a dense cluster of quantum startups and shows strong specialisation in quantum technologies relative to its overall patenting activity.

This points to a familiar structural issue. Europe has built deep technical capability and a strong startup base, but European firms typically attract less scale-up capital. As the ecosystem matures, Europe's challenge is therefore less about generating patentable innovation and more about supporting the scale-up of IP-rich companies into globally competitive businesses.

Quantum is growing rapidly

Across all metrics, quantum is one of the fastest-growing areas of technological innovation. International patent families relating to quantum technologies increased roughly sevenfold between 2005 and 2024, with most of that growth occurring in the past decade. Since around 2014, quantum patenting has expanded at an average rate of approximately 20% per year, far outpacing growth across patenting as a whole.

Firm creation broadly mirrors this trend. New entrants into the quantum ecosystem increased steadily up to around 2021, particularly in quantum computing. More recent data suggest that growth in new firms and investment may be levelling off. Importantly, this does not indicate a slowdown in innovation. Rather, it reflects a transition to a more selective funding environment in which fewer companies progress to late-stage, capital-intensive growth.

In this sense, innovation is outpacing commercial scale-up. The ecosystem has proven highly effective at generating research outputs, patent filings and early-stage companies. What is less developed is the pipeline of late-stage

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capital and industrial capacity required to turn those assets into deployed systems and revenue-generating products.

For IP strategy, this shift is critical. As scale-up funding becomes scarcer, investors are likely to place greater weight on patent quality, scope and enforceability. Portfolios that clearly map onto scalable architectures, defensible system-level claims and credible freedom-to-operate positions are likely to be favoured over large but unfocused collections of early-stage filings.

To help support connections between investors, researchers, startups and universities in the quantum ecosystem, the EPO has recently added the quantum firms profiled in this report to its Deep Tech Finder tool.

Computing now dominates over communications and sensing

Within the quantum domain, computing has emerged as the dominant driver of growth. For much of the past decade, quantum communication generated the largest number of patent families, reflecting early interest in quantum key distribution and secure communications. That changed in 2022, when quantum computing overtook communication and began driving the sharpest increases in patenting and firm creation.

Over the past ten years, patenting activity in quantum computing has expanded nearly twenty-fold, compared with roughly a three-fold increase in communication and more modest growth in sensing and metrology. This divergence reflects both investor expectations and perceived commercial potential. Quantum computing is increasingly viewed as a platform technology around which software, algorithms and industry-specific applications will develop.

From an IP perspective, this concentration raises the stakes significantly. Competition is intensifying around core hardware architectures, control systems, error-mitigation techniques and enabling technologies. At the same time, the absence of a clearly dominant computing paradigm means that claim strategy matters more than ever. Portfolios that are overly tied to a single hardware approach risk obsolescence, while those that capture architectural abstractions, system interactions and control techniques are more likely to retain long-term value.

Strong links to research

One of the defining characteristics of the quantum ecosystem is its continued proximity to academic research. While the share of international patent filings by private companies has steadily increased (rising from under 50% in 2005 to over 80% today as the sector becomes more commercially oriented) public research organisations still account for close to 20% of all quantum international patent families.

Quantum patents also cite non-patent literature, primarily academic journal articles, at significantly higher rates than patents in most other technology fields. This indicates that much quantum innovation continues to emerge directly from frontier research rather than incremental product development.

The same pattern is evident in company formation. Founders of core quantum firms are far more likely than founders in other sectors to hold PhDs, and the quantum workforce remains heavily concentrated in research, engineering and computer science roles. Commercial, sales and customer-facing functions represent a relatively small share of quantum-related job postings.

This research intensity shapes the IP landscape. Inventions often arise from collaborative research environments involving universities, startups and public research organisations, increasing the importance of clear ownership arrangements, background IP definitions and downstream licensing rights. As technologies mature, the ability to translate academically grounded inventions into commercially robust patent claims will become increasingly important.

Wide international reach

Quantum innovation is also unusually international, not only in collaboration but in patent protection strategy. Quantum patent families are far more likely than average to be filed across multiple jurisdictions, reflecting both expectations of global markets and intense international competition.

This high level of internationalisation carries clear cost implications. Securing protection across the US, Europe and Asia requires early, coordinated filing strategies and a willingness to absorb substantial prosecution and translation costs at a relatively early stage of company development. However, for quantum technologies, the potential benefits often justify this investment. International patent coverage can be critical for attracting later-stage investment, supporting cross-border partnerships and licensing, and preserving long-term freedom to operate in a field where supply chains, customers and acquirers are inherently global.

Conclusion

As the International Year of Quantum fades into history, the quantum ecosystem enters a more demanding phase. The EPO and OECD joint report provides a valuable snapshot of the current landscape, showing that innovation remains strong and patenting continues to grow faster than in any other technology area. At the same time, the constraints ahead are becoming clearer: scale-up funding gaps, increasing international complexity, supply-chain concentration and the challenge of turning research-driven advances into deployable systems.

In this environment, intellectual property will be central. The post-2025 phase of quantum development will reward IP strategies that are not only scientifically credible, but commercially aligned, internationally coherent and resilient to shifts in technology and market structure. If the International Year of Quantum marked the moment when quantum technologies captured global attention, its lasting legacy may be that it also marks the point at which IP strategy becomes as critical as scientific breakthrough in shaping quantum's future.

Author:
Ben Hunter

Clinical trial protocols and a reasonable expectation of success

Differing EPO & UPC decisions

The Unified Patent Court's (UPC) Munich Local Division recently revoked Sanofi's EP2493466 patent for lack of inventive step in view of a phase III clinical trial protocol. This is in contrast to the earlier decision T 0136/24 of the European Patent Office (EPO) Board of Appeal which had maintained the patent as granted and upheld the decision of the Opposition Division.

> This decision comes after the UPC Court of Appeal confirmed that it will adopt a holistic assessment of inventive step, moving away from the EPO's problem-solution approach. Despite assurances that when applied properly both approaches should lead to the same outcome, in this instance this was not the case.

This article compares the approaches taken by the EPO Board of Appeal and the UPC Munich Local Division and discusses the factors that led to these diverging outcomes.

Background

Claim 1 of Sanofi's EP2493466 patent is directed to cabazitaxel in combination with prednisone or prednisolone for use in the treatment of patients with castration resistant metastatic prostate cancer (mCRPC) that have previously been treated with a docetaxel-containing regimen.

The patent disclosed the results of a phase III study which compared cabazitaxel in combination with prednisone, with mitoxantrone in combination with prednisone in mCRPC patients.

Particularly, the results indicated that the median overall survival of patients receiving cabazitaxel was improved by 2.4 months compared to patients receiving mitoxantrone. This was observed even in the arm of patients who had previously not responded to docetaxel.

The patent also mentioned other criteria that were in cabazitaxel's favour, such as the prostate-specific antigen (PSA) response rate, the tumour response rate, the pain response rate, as well as the duration without progression of the tumour, without progression of the PSA and without progression of the pain.

The key prior art was as follows:

- the clinical trial protocol of the phase III trial (without data). The end date indicated that the trial was nearly complete at the priority date of the patent;
- a phase I study for cabazitaxel involving 25 patients, only eight of whom had prostate cancer and only two of these patients showed a partial response. Further, only one of these two had received a prior treatment of docetaxel;
- a phase II study for cabazitaxel on breast cancer patients who had received a prior treatment with a taxane anti-cancer agent, 65% of whom had received docetaxel. Favourable results were observed, however this line of development was discontinued, and no phase III study occurred.

Test for inventive step

The Munich Local Division applied the definitive test recently set out in Meril v Edwards and Amgen v Sanofi. The key differences in this test compared with the EPO's problem-solution approach lie in the formulation of the "objective problem" as the first step, and so the problem is derived from the patent itself in isolation of the prior art, and the selection of the "realistic starting point" as opposed to "closest prior art". We discuss the similarities and differences of each approach in detail in our article reporting the above decisions (see *dycip.com/upc-inventive-step-definitive-test*).

In the present case, both the Board of Appeal and Munich Local Division considered the closest prior art or realistic starting point was considered to be the phase III protocol, with the difference being whether the claimed therapeutic effect had been achieved.

However, the Board of Appeal then went on to formulate the objective technical problem as "to put into practice the **effective treatment** of prostate cancer with cabazitaxel in co-administration with prednisone in patients with mCRPC who have been previously treated with a docetaxel-based regimen and who have prostate cancer that progressed during or after that treatment".

In contrast, the Munich Local Division formulated the objective problem more broadly as "to provide a **therapeutic option** for treating patients suffering of castration resistant metastatic prostate cancer who have been previously treated with docetaxel-based regimen and have prostate cancer that progressed during or after that treatment". It appeared to put weight on the fact that the data in the patent showed a range of other therapeutic effects, not just overall survivability. Thus, "a therapeutic option" included both increased overall survival and **palliative treatment**.

Reasonable expectation of success

The difference in formulation of the problem to be solved also affected the standard used to assess whether the skilled person had a reasonable expectation of success.

The Board of Appeal asserted that this had to be assessed in the context of achieving the primary end point of the phase III trial, which was improved overall survivability. The Munich Local Division disagreed, noting that the objective problem was not limited to the primary endpoint of the phase III trial but also included palliative treatment. Thus, the patent would be obvious if the skilled person had a reasonable expectation of success of achieving either of these outcomes.

Both decisions assessed whether there was a reasonable expectation of success largely in the same way. Both agreed that ongoing clinical studies does not automatically

Related article

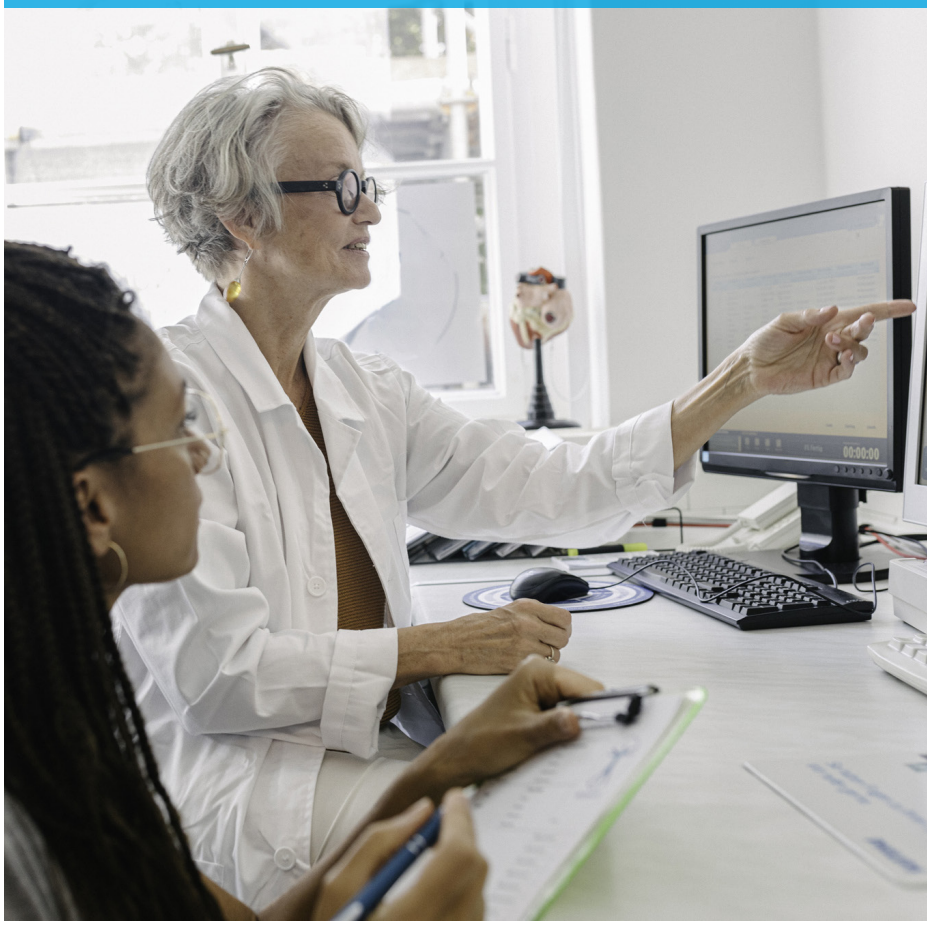
Inventive step at the UPC - Court of Appeal sets definitive test: dycip.com/upc-inventive-step-definitive-test

Case details at a glance

Jurisdiction: UPC
Decision level: Munich Local Division
Parties: Sanofi SA as successor of Sanofi Mature IP and others (claimant) v STADAPHARM GmbH and others (defendant)
Citations: UPC_CFI_146/2024 - UPC_CFI_496/2024, UPC_CFI_147/2024 - UPC_CFI_374/2024, UPC_CFI_148/2024 - UPC_CFI_503/2024
Date: 12 December 2025
Decision: dycip.com/upc-cfi-146-2024

Jurisdiction: EPO
Decision level: Technical Board of Appeal
Parties: SANOFI v Glenmark Pharmaceuticals Europe Ltd, Accord Healthcare Ltd, Zentiva ks, Fresenius Kabi Deutschland GmbH, Dr Reddy's Laboratories Ltd/ Betapharm Arzneimittel GmbH, Generics (UK) Limited and Vossius & Partner
Citation: T 0136/24
Date: 03 June 2025
Decision: dycip.com/epo-t-0136-24

Should the objective problem be limited to the primary endpoint of a phase III clinical trial?



establish a reasonable expectation of success and each case must be assessed based on its specific circumstances. Both also came to their decision on the basis of balancing positive and negative pointers. `

Of particular note was the contrasting view the respective forums took of the data that was available for cabazitaxel prior to the priority date.

The Board of Appeal considered that the phase I and phase II data were limited such that the phase III study could not be considered a confirmatory study. It appeared to put considerable weight on the lack of data in prostate cancer patients, considering that overall survival is linked to type of cancer and stage of disease progression, and that the phase I data are not the type to allow any insight into overall survivability.

Taking all pointers into account, the Board of Appeal concluded that there was no reasonable expectation of success, and so the invention could not be considered obvious.

In contrast, the Munich Local Division did acknowledge the limitations of the data but ultimately considered that the fact that there was a phase III trial that was almost complete did give the phase I data in a single patient more weight. It also considered that although the phase II data were in a different patient group, the results were encouraging and demonstrated that cabazitaxel could be used in the treatment of the claimed patient group, that is, those who are resistant to a first taxane, namely docetaxel.

Taking all pointers into account, it concluded that there was "no evidence **against** cabazitaxel's efficacy in the treatment of mCRPC as a second-line treatment after a docetaxel regimen has been discontinued" and so considered there was a reasonable expectation of success such that the patent was obvious.

Summary

At first glance, it would be reasonable to assume that the difference in outcomes results from the broader formulation of the objective problem and standard for a reasonable expectation of success by the UPC. However, the Munich Local Division's final comments of "the person skilled in the art would have considered that…the second-line cabazitaxel plus prednisone experiment in progress in a phase III trial for more than three years, had a reasonable chance of showing a favourable effect **including the (moderate) increase in survival**" appear to indicate that even if they had used the same problem and standard for a reasonable expectation of success as the Board of Appeal, the outcome would have still been the same.

> The real difference appears to be in the Munich Local Division's willingness to consider the overall trajectory of the relevant clinical trial data and progress, indicating a more plausibility-based approach to a reasonable expectation of success, and arguably a lower bar when clinical trial protocols are concerned.

With the possibility of appeal for Sanofi before the UPC, and petition for reviews pending before the EPO, it will be interesting to see whether these diverging decisions will remain.

Author:
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Artificial neural networks are programs for a computer
UK Supreme Court revisits boundaries of AI patentability

Case details at a glance
Jurisdiction: England and Wales
Decision Level: Supreme Court
Parties: Emotional Perception AI Limited v Comptroller General of Patents, Designs and Trade Marks
Citation: [2026] UKSC 3
Date: 11 February 2026
Decision (PDF): dycip.com/2026-uksc-3

Related article
UK Court of Appeal overrules High Court, saying AI inventions "are in no better and no worse position than other computer implemented inventions", 22 July 2024 ([2024] EWCA Civ 825): dycip.com/2024-ewca-civ-825

On 11 February 2026 the UK Supreme Court handed down its judgment in the case of Emotional Perception AI Limited v Comptroller General of Patents, Designs and Trade Marks, ruling that an invention directed towards a pure computer program "as such" is not excluded from patentability where the claimed subject matter involves any form of physical hardware for implementation.

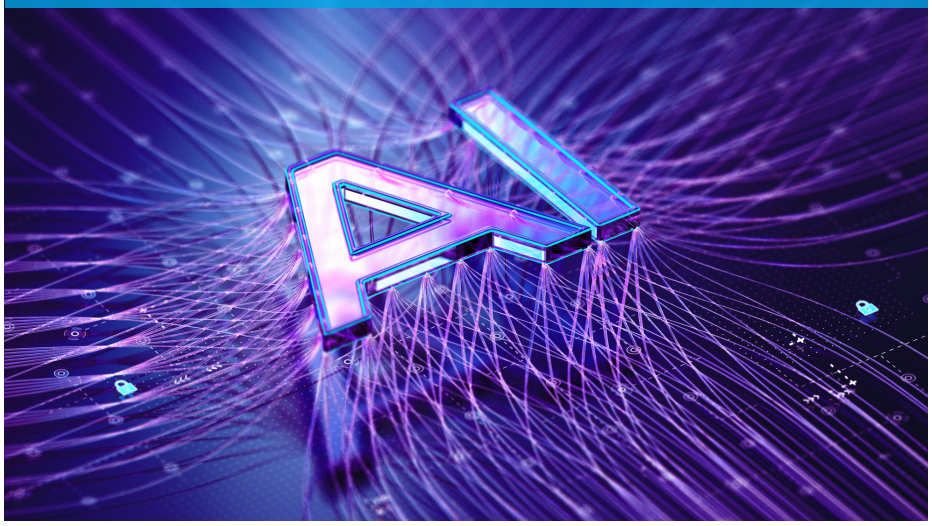
The case concerns an application directed to an artificial neural network (ANN) used to organise music files, where the United Kingdom Intellectual Property Office (UKIPO), High Court and Court of Appeal differed in their views as to whether an ANN should be considered a computer program "as such". The appeal to the Supreme Court raised three issues, which were addressed in the judgment.

Should Aerotel be followed?

In the established Aerotel four-step approach used in the UK, the central question is whether the invention makes a novel technical contribution, but that excluded subject matter does not count for this purpose. In contrast, the "any hardware" approach applied by the European Patent Office (EPO) and endorsed in G 1/19 sets out that subject matter will not be excluded from patentability if it embodies or involves the use of physical hardware (although it may still lack inventive step).

The Supreme Court decided that the Aerotol approach merges the assessment of whether or not there is an invention with that of novelty and inventive step, when they should be treated separately. It considered the G 1/19 approach, where the question of whether the claim amounts to an invention is considered first and separately from novelty and inventive step, to be better at solely addressing the question whether the subject matter of the claim is an invention or not. It did, however, make it clear that the Pozzoli method is still the recognised method for assessing inventive step in the UK, and that the "any hardware" approach can co-exist with the Pozzoli method.

This case concers an application directed to an artificial neural network (ANN)



Is an ANN (or does it contain) a "program for a computer"?

The Supreme Court agreed with the hearing officer's characterisation that an ANN is set of instructions to manipulate data, and therefore that an ANN is a program for a computer "as such". The court also rejected distinctions between "hardware ANNs" and "software ANNs", treating ANNs as abstract computational models whose topology, activation functions, weights and biases together constitute instructions to hardware.

Is the entire subject matter of the claims excluded?

Applying the any hardware approach, and in considering an ANN to be a program for a computer, the Supreme Court decided that the claims were directed to an invention, acknowledging that the "any hardware" approach provides a very low hurdle to clear in order for the claims to be considered an invention. This also means that an invention directed towards a pure computer program "as such" is not excluded from patentability if it requires physical hardware for implementation.

The Supreme Court acknowledged the need for the intermediate step of G 1/19; to filter out features which do not contribute to the technical character of the invention as a whole. Since this step in G 1/19 is drafted in terms of the technical solution to a technical problem (drawn from the EPO's problem-solution approach to inventive step), it decided to not to follow it, noting the UKIPO and UK courts are open to adopt any appropriate method of identifying technical character. Since this intermediate step has not been applied in the UK before, the Supreme Court did not consider it appropriate for it to define this step or perform it on the claims of the patent in suit. The court therefore referred the application back to the UKIPO for reconsideration without any further comment as to the patentability of the application.

This decision will not only have an impact on AI patentability in the UK, but also provides a degree of harmonisation between the UK and EPO with regard to how computer implemented inventions are evaluated, even if the exact approach to be adopted in the UK is still to be defined.

A more detailed analysis of this judgment and its implications will follow.

Visit the D Young & Co AI-sector website page and meet members of our AI team): *dycip.com/sector-ai*

Author:
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9am, noon & 5pm GMT, 24 February 2026

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The webinar will run at 9am, 12pm and 5pm (UK time) on Tuesday 24 February 2026. Early booking is advised to secure your webinar seat: **dycip.com/webinar-biotech-feb2026**

UPC Case Law, Observations & Analysis
1pm BST, 17 June 2026

Our ongoing series of webinars, dedicated to analysing the Unified Patent Court's decisions, continues with our 18 June 2025 webinar. Our expert speakers, UPC representatives David Al-Khalili, Rachel Bateman and Sophie Slater will provide you with the most up to date UPC observations and analysis.

Registration is now open: **dycip.com/webinar-upc-jun2026**

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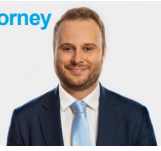

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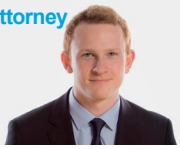

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