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## Icescape v Ice-World Uncertainty in transition from Kirin-Amgen to Activis begins to thaw



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We hope that you find this, our first patent newsletter of 2019, of interest. Our best wishes to readers celebrating the lunar New Year.

As we go to print we are delighted to report that our inaugural programme of patent prosecution and litigation webinars was very well attended - thank you for your positive feedback and support. If any readers missed the webinars and would like to view the recordings, please do contact our events team at [registrations@dyoung.com](mailto:registrations@dyoung.com). More information is available about the three webinars on page 8 of this newsletter.

We continue to monitor Brexit developments closely and will update you as soon as further information is available. A reminder that you can keep up to date with our latest IP & Brexit news at [www.dyoung.com/knowledgebank/ip-brexit](http://www.dyoung.com/knowledgebank/ip-brexit).

Editor:  
Antony Allbutt



Events



05 April 2019  
**EPLIT Annual Meeting, Vienna, Austria**  
European Patent Attorney, D Young & Co partner, Hanns-Juergen Grosse will be attending the European Patent Litigators Association's 6th Annual Meeting, taking place in Vienna this April.

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Patent infringement

# Icescape v Ice-World Uncertainty in transition from Kirin-Amgen to Actavis begins to thaw

To bring about some festive nostalgia in these cold, post-Christmas months, let's take a look at a judgment related to mobile ice rinks issued by the UK Court of Appeal towards the end of 2018. The case focused on several issues, including priority, groundless threats and infringement. This article focuses on infringement.

The case was between ICESCAPE LIMITED (Icescape) and ICE-WORLD INTERNATIONAL BV & ORS (Ice-World) and was heard on appeal from the UK High Court in which it was decided that there was no infringement by Icescape of Ice-World's patent EP(UK) 1462755 B1.

This initial judgment was issued before *Actavis* and thus relied on the use of purposive construction as laid down in *Kirin-Amgen*.

The judgment on appeal, however, was issued after *Actavis*. It was thus deemed appropriate by the Court of Appeal to consider the issue of infringement in light of the new law as laid down in *Actavis*.

The patent related to a cooling member for a mobile ice rink. Figure A (Figure 8 of the patent) demonstrates the claimed invention.

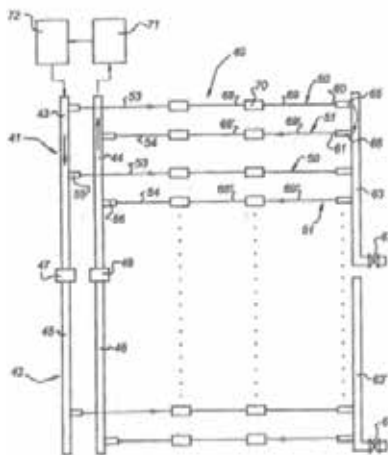


Figure A

Figure A represents a set of pipes, manifolds and connectors which sit under an ice rink and through which coolant flows to cool the

ice rink. More specifically, coolant previously cooled by a refrigeration unit is pumped to a feed manifold (43, 45) from which it then flows through multiple longitudinal pipes (50). Once it reaches a connecting pipe (63), the coolant is returned via further multiple longitudinal pipes 51 to a discharge manifold (44, 46). The coolant is then pumped from the discharge manifold (44, 46) back to the refrigeration unit and the cycle is repeated.

For mobile ice rinks, the various elements are connectable and disconnectable from each other so as to allow the ice rink to be assembled and disassembled. The assembly and disassembly remains, however, a time consuming and laborious process.

In order to alleviate this problem, the longitudinal pipes (50, 51) of the claimed invention are made up of a plurality of rigid pipe sections (68, 68', 68'', 69, 69', 69'') connected to each other via joint members (70) which enable adjacent rigid pipe sections to fold back on one another. The rigid pipe sections forming each longitudinal pipe (50, 51) therefore do not need to be connected and disconnected from each other during assembly and disassembly. Rather, they can just be folded and unfolded, thereby saving time and labour. It was determined that this was the inventive concept of the claimed invention.

Some connection and disconnection was still necessary, however. In particular, the claimed invention has multiple elements (41, 42) each comprising a feed manifold (43, 45), discharge manifold (44, 46) and longitudinal pipes (50, 51). It can be seen that element (41) has feed manifold (43) and discharge manifold (44) and that element (42) has feed manifold (45) and discharge manifold (46). The manifolds of adjacent elements are connected together via coupling members (47, 48) to form an enclosed network of pipes around which the coolant flows. It was the nature of this connection between the manifolds of adjacent elements upon which the issue of infringement rested.

In particular, it was accepted by Icescape that its rink had all of Ice-World's claimed features except:

- D. wherein the first and the second element (41, 42) can be placed in the operational position alongside one another such that the feed and discharge manifolds (43, 44, 45, 46) of the elements extend in the extension of one another in the transverse direction, and
- E. wherein the feed and discharge manifolds of the two elements are provided with a coupling member (47, 48) to make a fluid-tight connection between the respective feed and discharge manifolds of the first and the second element.

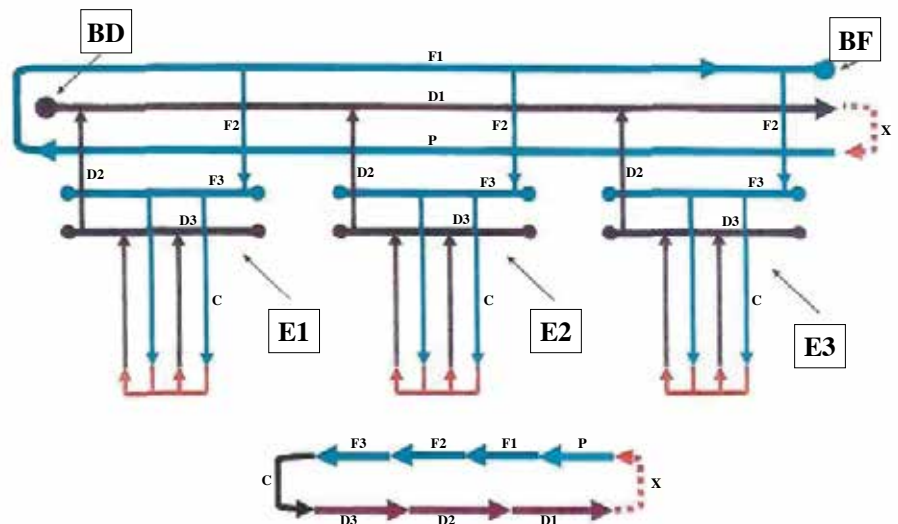
(The features are denoted “D” and “E” to reflect the notation used in the judgment).

Figure B (right) shows a schematic of Icescape’s rink.

Icescape’s rink operated under the same basic principles as the claimed invention. In particular, refrigerated coolant flows from a manifold F1 to further manifolds F3 of each of a plurality of elements E1, E2 and E3 via connecting pipes F2. Each element E1, E2 and E3 has longitudinal pipes C which, like the longitudinal pipes (50, 51) of Ice-World, have foldable joints. Coolant flows along the longitudinal pipes of each element E1, E2 and E3 (thereby cooling the rink) and is returned to further manifolds D3 of the elements E1, E2 and E3. The coolant is then returned to a manifold D1 via connecting pipes D2.

The High Court decided that there was no infringement because Icescape’s rink did not have feature E when construed purposively under the principles of *Kirin-Amgen*. In particular, it was determined that the infringement claim ignored the language of the claim and involved replacing feature E with either nothing at all or with language such as “wherein the feed and discharge manifolds of the two elements are connected into the system in some leak-free manner”.

The Court of Appeal agreed. It was determined that integers D and E had to be read together and that, under a “natural reading” of these integers, the skilled person would have come to the conclusion that the two manifolds of



Key:  
 C Cooling pipe assembly comprising pipes with foldable joints;  
 X Coolant recirculation / cooling means

Figure B

each element must be connected together in series (rather than in parallel, as in Ice-World’s case, due to the use of the further manifolds F3 and D3) so that fluid does not leak between them from one to the other.

This was not the end of the story, however. It was determined that, after the claims have been construed purposively, the questions laid down in *Actavis* regarding immaterial variants also needed to be considered.

**It was found that Icescape’s rink did differ from the claimed invention in ways which were immaterial when the Actavis questions were applied, and that Icescape therefore did infringe the patent.**

In coming to this conclusion, the judgment appears to put a lot of weight on the distinguishing features of Icescape’s rink in the context of Ice-World’s inventive concept. Specifically, it was determined that the inventive concept was the use of

the joint members of the longitudinal pipes which allowed the rigid pipe sections of the longitudinal pipes to be folded on top of each other, thereby allowing rapid and reliable installation of ice rinks with a large number of different possible surface areas. Icescape’s rink had this feature and the differences in the ways in which adjacent elements were connected together (ie, a “parallel” rather than “series” arrangement) had “nothing to do with the inventive core of the patent”.

This case thus nicely demonstrates the new approach to infringement analysis following *Actavis* in which two issues (referred to as issues (i) and (ii) in the judgment, referring to *Actavis*) must be considered. Issue (i) is essentially purposive construction (as before). Issue (ii) is whether the alleged infringement differs from the claimed invention in immaterial ways, based on the *Actavis* questions and the inventive concept of the claimed invention. In effect, issue (ii) gives the patentee a second chance at proving infringement which was not available under *Kirin-Amgen*, a chance which bore fruit for the patentee in this case (although the patent was ultimately found to be invalid).

Author:  
Arun Roy



# Glaxo Group v Vectura Arrow declarations

In a decision by Mr Justice Arnold, the English Patents Court has granted Glaxo Group (GSK) an Arrow declaration that its own manufacturing processes (and their direct products) were obvious over the prior art cited.

Building on the jurisprudence in *Fujifilm v AbbVie* and *Generics v Yeda*, this case provides useful guidance as to the availability of Arrow declarations (a valuable tool for some to clear the way).

## What is an Arrow declaration?

An Arrow declaration is a declaration by the court that a party has a Gillette defence. The name derives from *Arrow v Merck*, the case which first considered the relief.

## What is a Gillette defence?

In a Gillette defence a defendant contends that its (allegedly) infringing product or process was obvious at a particular date and accordingly cannot fall within a valid claim of a later patent. The name of the defence stems from *Gillette Safety Razor Co v Anglo-American Trading Co*.

## Background

In 2010, Vectura granted GSK a licence in respect of one of its patents (referred to as Staniforth in the litigation) and any patents deriving from it. This related to manufacturing processes (and their direct products) for pharmaceutical compositions for inhalation using composite active particles with a magnesium stearate coating.

The agreement also identified an additional class of patent applications (referred to as “the non-assert patents”) in respect of which GSK had the option to take a licence.

The Staniforth patent expired in 2016 and subsequently GSK declined to take a licence under the non-assert patents.

In July 2016, Vectura commenced infringement proceedings in the US in relation to some of the US non-assert patents.

In turn, in June 2017, GSK sought to revoke five of Vectura’s UK non-assert patents.

GSK asserted that the patents were invalid for obviousness over certain prior art (including Staniforth) and insufficiency.

Vectura counterclaimed for infringement, which GSK denied.

In addition, GSK sought an Arrow declaration on the basis of a Gillette defence. GSK’s position was that it used an obvious development of the process disclosed in Staniforth and not the processes claimed in the patents in suit.

In a nutshell, GSK said that, although its process used magnesium stearate, this was disclosed by each of the three items of prior art.

## Strike out application

Following commencement of the English proceedings, Vectura made an application to strike out GSK’s claim for Arrow relief. In doing so, Vectura gave an undertaking not to sue GSK under any of the remaining non-assert patents. Presumably, its logic being that, by removing a larger pool of patents from being in issue, this negated the need for an Arrow declaration to clear the way.

The application was unsuccessful, the Court of Appeal holding that it was for the trial judge to decide whether the relief was appropriate in light of the circumstances and facts at the trial date.

Subsequently, GSK identified a further patent relevant to the technical subject

matter in suit owned by Vectura but which fell outside the scope of the definition of the non-assert patents. This was referred to as “415” in the litigation. GSK invited Vectura to give an undertaking not to sue in relation to this patent (or its divisionals). It declined.

## Decision

The trial judge, Mr Justice Arnold, held that the patents were invalid for insufficiency, reasoning that it was not possible to determine when the patented invention had been performed (he declined to find them obvious). It followed that, if the patents were valid, infringement could not be established.

While Arnold J declined to find the patents in suit obvious, he did find that GSK’s processes were obvious in light of the prior art, concluding that GSK had a Gillette defence. It, therefore, fell to be determined whether the court would grant an Arrow declaration.

## Arrow declaration

The principles upon which the court is prepared to grant such relief were considered by Mr Justice Carr in *Fujifilm v AbbVie*. Granting the relief, the court held that it should consider:

1. justice to the claimant;
2. justice to the defendant;
3. whether the declaration will serve a useful purpose; and
4. whether or not there are any other special reasons why the court should or should not grant the declaration.

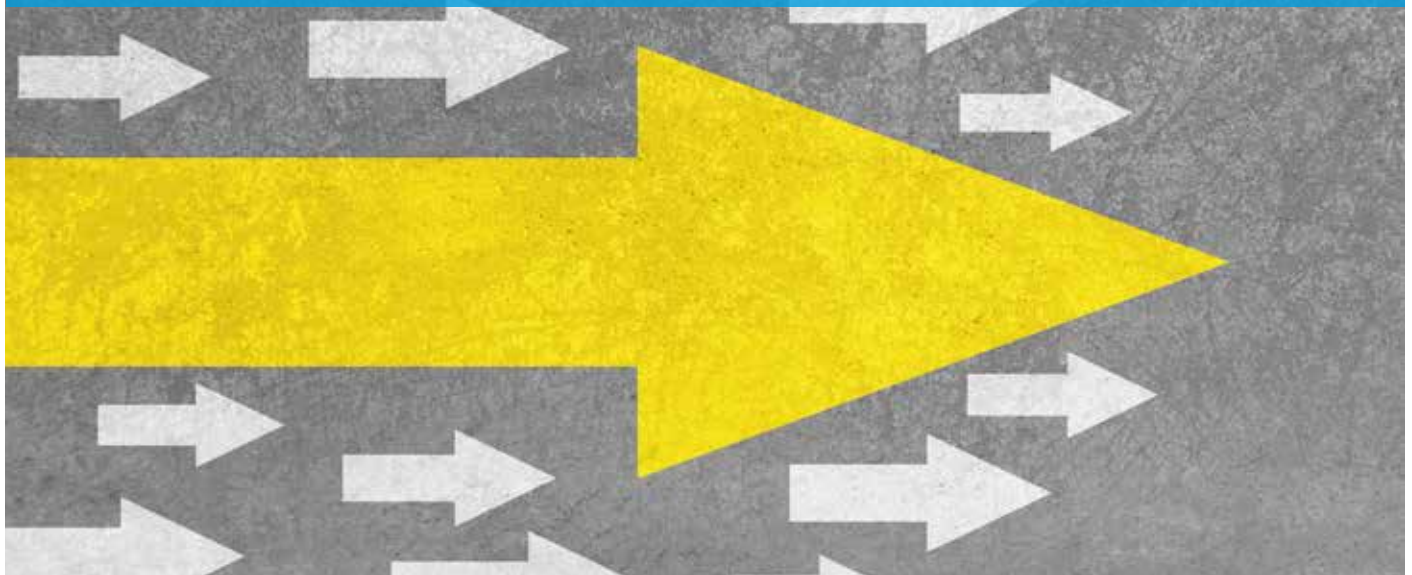
As to point 4, Carr J noted that the attainment of commercial certainty in patent cases can constitute a useful purpose. The spin-off value of a judgment in other countries may be such a factor, but a declaration sought solely for the benefit of foreign courts will rarely be justified.

This was subsequently applied in *Generics v Yeda*. Here, the English Patents Court, declined to grant an Arrow declaration. The trial judge (again Arnold J) had found that the patent in suit in a particular dosing



> **Case details at a glance**  
*Jurisdiction: England and Wales*  
*Decision level: High Court (Patents Court)*  
*Parties: Glaxo Group Limited, Glaxo Operations Limited, GlaxoSmithKline Trading Services Limited (claimants) and Vectura Limited (defendant)*  
*Citation: [2018] EWHC 3414 (Pat)*  
*Date: 13 December 2018*  
*Full decision: [dycip.com/glaxo-vectura](http://dycip.com/glaxo-vectura)*

An arrow declaration is a declaration by the court that a party has a Gillette defence



regimen was obvious. It followed that Generics' product in issue was also obvious as it was identical to the patented regime.

The patent in suit was a divisional of another patent, and there were two pending divisional applications which covered the dosing regimen. Generics sought an Arrow declaration to clear the way in relation to these divisionals, but when asked by Arnold J why an Arrow declaration should have any greater persuasive value than a reasoned judgment on the validity of the patent in suit, Generics was unable to provide an answer. Consequently, Arnold J declined to grant the declaration, finding that it would not serve a "useful purpose".

By contrast, in the case at hand, Arnold J concluded that a declaration would serve a useful purpose. Distinguishing his decision in *Generics v Yeda*, he reasoned:

"254. ... First, Vectura have failed to establish infringement of the Patents because they have not been able to identify a suitable analytical technique to demonstrate that certain requirements of the claims of the Patents are satisfied. Vectura would not necessarily face the same difficulty with differently formulated claims.

255. Secondly, I have not found that the Patents were obvious. It would be an open question as to whether patents with differently formulated claims were obvious or not.

256. Thirdly, and most significantly, Vectura has given an undertaking which is designed to give GSK comfort that, if they are successful in defeating Vectura's claims for infringement of the Patents, then they will not be vexed by further claims for infringement of other patents by the same process and products; yet Vectura's undertaking does not extend to patents deriving from (for example) 415. Counsel for Vectura was unable to give me any explanation for Vectura's unwillingness to extend its undertaking to (at least) 415. It follows that GSK are potentially at risk of a claim for infringement of a patent deriving from (at least) 415."

As a result, Arnold J granted a declaration as follows: "A declaration that the Claimants' Processes described in the Annex A [which is the same as the PPD save for the fact that the particular Comil model (U5) is deleted] and the Claimants' Products which are direct products of those Processes (and save for the active

ingredients therein) were obvious as of 30 November 2000 or at any date thereafter."

**Author:**  
**Antony Craggs**



#### Case citations

- *Gillette Safety Razor Co v Anglo-American Trading Co Ltd* (1913) 30 RPC 465
- *Arrow Generics v Merck* [2007] EWHC 1900 (Pat)
- *Fujifilm v AbbVie* [2017] EWHC 395 (Pat)
- *Generics v Yeda* [2017] EWHC 2629 (Pat)

# Patenting artificial intelligence Certainty at last from the EPO?

In recent years the importance of artificial intelligence (AI) and machine learning (ML) has grown relentlessly as its application has spread to ever more areas. While just a few years ago AI and ML were of central importance primarily in the computing field, they are now becoming increasingly critical elements in industries as diverse as the automotive, pharmaceutical and retail sectors. As such, legal certainty of what technological innovations can and cannot be patented in this area is now of vital importance.

## Background

The European Patent Office (EPO) has historically taken a two-step approach to determine whether an idea in this area can be patented.

First, the EPO applies a simple yes or no test as to whether an idea falls within an area excluded from patentability by Art. 52(2) EPC. These are:

1. discoveries, scientific theories and mathematical methods;
2. aesthetic creations;
3. schemes, rules and methods for performing mental acts, playing games or doing business, and programs for computers;
4. presentations of information.

On the face of it, this would suggest that AI and ML are excluded from patentability by being “mathematical methods” and/or “programs for computers”. However, Art. 52(3) EPC goes on to make clear that these exclusions apply only to the extent to which an application relates to this subject-matter “as such”. Case law has interpreted this provision permissively such that this hurdle is normally easy to pass, for example, by including in the application technical means such as computer hardware.

The second, more challenging, hurdle at the EPO is to demonstrate the presence of an inventive step under Art. 56 EPC. This is assessed by taking into account all features which contribute to the technical character of an invention even if a given

## What AI and ML technological innovations can and cannot be patented?



feature taken in isolation would be considered “non-technical”. So an AI or ML algorithm, even though in isolation would be regarded as a “mathematical method”, can, and indeed in many cases does, contribute to the technical character of the claim and hence can support an inventive step.

While, in principle, this sounds straightforward, the difficulty in practice arises in determining whether a particular AI or ML algorithm contributes to the technical character of a claimed invention.

**The new EPO Guidelines which came into effect in November 2018 aim to improve the situation and reduce the uncertainty for applicants as to what is patentable.**

## New guidance from the EPO

In the November 2018 edition of the Guidelines, the EPO tackled this uncertainty

head-on with a completely rewritten section setting out how examiners are required to handle applications incorporating mathematical methods and a brand new section dedicated to the handling of artificial intelligence and machine learning.

- EPO Guidelines for Examination: artificial intelligence and machine learning: <https://dycip.com/epo-ai>
- EPO Guidelines for Examination: mathematical methods: <https://dycip.com/epo-mathematical-methods>

## Mathematical methods

In the mathematical methods section, it is made clear that there are two broad manners in which mathematical methods can contribute to the technical character of a claimed invention: either as a “technical application” where the mathematical method is limited to a specific “technical purpose”; or as a “technical implementation” where the claims are directed to a specific technical implementation of the mathematical

# WIPO changes in procedure International Hague registered design applications

method where the mathematical method is particularly adapted for that implementation in that its design is motivated by technical considerations of the internal functioning of the implementing computer.

### Artificial intelligence and machine learning

The artificial intelligence and machine learning section provides some typical examples of applications which would be considered technical and hence could support an inventive step. These include the use of a neural network in a heart-monitoring apparatus for the purpose of identifying irregular heartbeats and the classification of digital images, videos, audio or speech signals based on low-level features (for example, edges or pixel attributes for images).

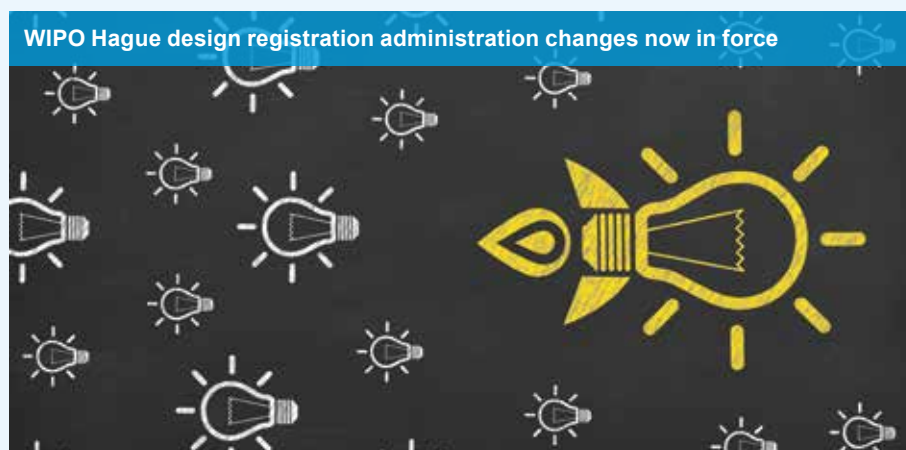
Conversely, classifying a text document solely based on its textual content (regarded as a merely linguistic purpose) and classifying “telecommunication network data records”, without an indication of a specific technical use being made of the classification, are given as typical non-technical examples which could not support an inventive step. The section also emphasises that the “training” of an AI or ML algorithm does not in of itself prevent the AI or ML from being considered abstract and hence does not in itself allow the AL or ML to contribute an inventive step.

### Conclusion

It is very encouraging to see that the EPO is working hard to increase legal certainty for applicants in this area. However, it is also clear that further guidance would be beneficial in navigating this admittedly complex area.

In our experience of the EPO’s approach to developing technologies, we would expect the EPO to considerably develop their guidance in the coming years as new judgments from the Boards of Appeal become available, providing further concrete examples of where the boundary lies between patentable and non-patentable subject-matter in this area.

**Author:**  
**Anton Baker**



**W**ith effect from the start of 2019, two key administrative changes came into force at the World Intellectual Property Organisation (WIPO) concerning the handling of international Hague registered design applications. Under the Hague design registration system, it is possible to obtain registered design protection in a number of territories around the world (including the UK, Germany and the EU) via the use of a single registered design application applied for centrally at the WIPO. A summary of the two key changes is outlined below.

### Change 1: removal of the need to submit a power of attorney on filing

Under the previous rules, for any agent nominated to represent the applicant of a Hague registered design application, it was necessary to complete a power of attorney form signed by the applicant. For new Hague registered design applications submitted going forward, it is no longer necessary to complete a power of attorney form, so long as the agent for the application is nominated at the time of filing the application.

Where the agent is nominated at any time after the initial filing of the application, a power of attorney form will still be necessary.

### Change 2: abolishment of the use of fax to send communications to WIPO concerning Hague design applications

As from the start of 2019, communications

sent to the WIPO relating to a Hague design application will no longer be allowed to be sent by fax. Instead, users will either have to send such communications by letter, or by using the electronic E-Filing Portfolio Manager portal on the WIPO’s website.

Further information from WIPO about the E-Filing Portfolio Manager can be found at: [www.wipo.int/hague/en/how\\_to/file/file.html](http://www.wipo.int/hague/en/how_to/file/file.html).

### Observations

Overall, the above changes represent a positive for users of the Hague design registration system.

Particularly following the removal of the requirement for a power of attorney form on filing, this change should also make the Hague system a more popular avenue of choice for those seeking design right protection around the world.

If you are interested in obtaining design right protection via the Hague system, or have any questions in respect of the above, please do not hesitate to contact one of the attorneys or solicitors in our design team.

Further information about our design services, including our guide to registered designs and information about our design book “European Design Law” can be found at: [www.dyoung.com/en/services/designs](http://www.dyoung.com/en/services/designs).

**Author:**  
**William Burrell**





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**O**n 22 January 2019 we held three European patent prosecution and litigation webinars presenting important UK, German and EPO & CJEU case law from the previous 12 months. In a packed agenda, our speakers, Antony Craggs, Garreth Duncan and Uli Foerstl, discussed subjects such as the doctrine of equivalents, SEPs & FRAND, Swiss form claims, arrow declarations, and allowed repair v forbidden new production, as well as EPO decisions

T384/15, T2026/15, T1280/14 and CJEU decisions on SPCs C-121/17 and C-527/17. The webinars were extremely popular and we have received some fantastic feedback from those of you who joined us on the day - thank you.

If you were unable to attend the live broadcasts and would like to be sent a recording, have any questions following the webinars, or if you would like to be added to our invitation list for future events of this nature, please email us at [registrations@dyoung.com](mailto:registrations@dyoung.com).

### Contact details

London  
Munich  
Southampton

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

[mail@dyoung.com](mailto:mail@dyoung.com)  
[www.dyoung.com](http://www.dyoung.com)

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### Contributors

Partner, Patent Attorney  
Editor

**Anthony Albutt**  
[aja@dyoung.com](mailto:aja@dyoung.com)  
[www.dyoung.com/  
anthonyalbutt](http://www.dyoung.com/anthonyalbutt)



Associate, Patent Attorney

**Anton Baker**  
[amb@dyoung.com](mailto:amb@dyoung.com)  
[www.dyoung.com/  
antonbaker](http://www.dyoung.com/antonbaker)



Partner, Solicitor

**Antony Craggs**  
[arc@dyoung.com](mailto:arc@dyoung.com)  
[www.dyoung.com/  
/antonycraggs](http://www.dyoung.com/antonycraggs)



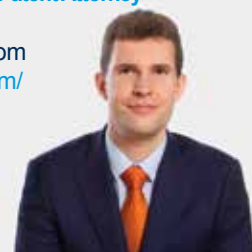
Technical Assistant

**Arun Roy**  
[axr@dyoung.com](mailto:axr@dyoung.com)  
[www.dyoung.com/  
/aronroy](http://www.dyoung.com/aronroy)



Senior Associate, Patent Attorney

**William Burrell**  
[wmb@dyoung.com](mailto:wmb@dyoung.com)  
[www.dyoung.com/  
williamburrell](http://www.dyoung.com/williamburrell)



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