

Planting the seeds for a doctrine of equivalents at the UPC

The Unified Patent Court (UPC) has considered many infringement actions since its inception on 1 June 2023. Most actions thus far have relied on literal infringement. The UPC's strong emphasis on claim interpretation in light of the technical function of the claim has meant that a "purposive construction" is adopted by default. However, a recent decision from the Hague Local Division (HLD) invoked a doctrine of equivalents based on the Dutch test. We review this decision and discuss its relevance for infringement actions before the UPC.

Direct and Indirect Infringement

The Unified Patent Court Agreement (UPCA) contemplates direct infringement (Art. 25 UPCA) and indirect or contributory infringement (Art. 26 UPCA). Most cases so far have concerned direct infringement. However, in [Hand Held Products v Scandit](#) the Munich Local Division (MLD) considered, in granting a preliminary injunction, contributory infringement to be more likely than not on the basis of a software development kit supplied by Scandit being "means relating to an essential element" of the invention that could be used by a customer to produce the claimed barcode scanning device, and thereby put the invention into effect.

Infringement through purposive construction

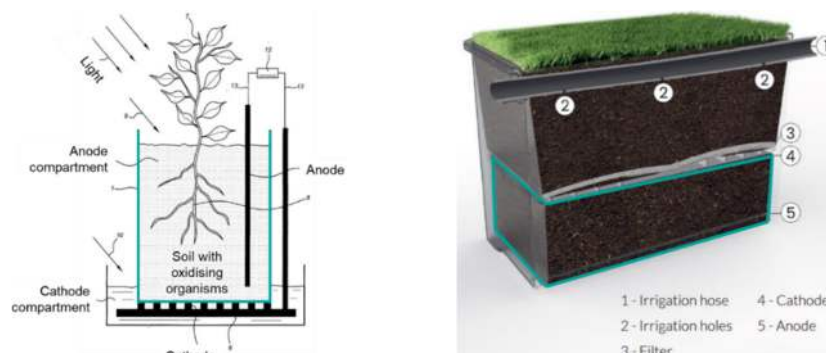
As discussed in our recent article entitled "[Invalidity at the UPC](#)" the UPC determines the technical meaning of each term and identifies the underlying problem to be solved by the claimed invention, so in effect applies a purposive construction of the claim in question. The claim features must always be interpreted in the light of the claim as a whole ([VusionGroup v Hanshow Technology](#)) and the description and the drawings must always be used as explanatory aids for the interpretation of the claims ([Nanostring v 10x Genomics](#)).

In [Edwards v Meril](#), the MLD considered a heart valve stent with a "parallel orientation of the side strut relative to the flow axis." The MLD concluded that the term "parallel" must not be understood in a strictly mathematical sense because the figures showed that a slight concave shape was possible, and did not undermine the technical effect explained in the patent: alignment with the flow direction not changing upon crimping of the valve. Hence the term "parallel" was interpreted purposively.

Infringement by equivalence

In [Plant-e v Arkyne](#), the HLD recently handed down the first decision on infringement by equivalence. The claims related to a fuel cell that uses microorganisms to oxidise a compound as fuel and produce energy. Such fuel cells were known in the art as Microbial Fuel Cells (MFCs). The patent in suit taught the addition of a plant to provide the compound continuously via photosynthesis in order to reduce the need for external fuel. The product was named a Plant-MFC (P-MFC).

An adapted version of Figure 1 is shown below on the left:



The relevant features of the claim require that the plant and its roots be located in the anode compartment (highlighted in **green**). In contrast, the roots of the Arkyne P-MFC (shown above, right) were held not to be located in the anode compartment (also highlighted in **green**), but rather are separated from the anode compartment by a filter (3). Plant-e's argument that the roots would eventually reach the anode compartment through an opening in the filter were not substantiated sufficiently to convince the court that literal infringement would occur. The HLD found that there was no literal infringement, despite adopting a purposive construction of the claims.

Plant-e submitted that the roots of the grass would still produce the required compounds and that the compounds and microorganisms would reach the anode compartment and produce electricity. Importantly, Plant-e provided experimental evidence showing that nutrients and micro-organisms can pass through the filter from the upper compartment to the lower compartment.

The HLD also considered other factors, such as Arkyne having terminated a licensing agreement for the Patent and the fact that Arkyne's promotional material suggested the Arkyne P-MFC worked in the same way. Arkyne responded that the Plant-e product did not work in practice because the presence of roots near or in the anode tends to hinder functioning of the device.

The HLD found infringement by equivalence by answering four questions in the affirmative:

- i. **Technical equivalence:** does the variation solve (essentially) the same problem that the patented invention solves and performs (essentially) the same function in this context?
- ii. Is extending the protection of the claim to the equivalent proportionate to a **fair protection for the patentee**: in view of his contribution to the art and is it obvious to the skilled person from the patent publication how to apply the equivalent element (at the time of infringement)?
- iii. **Reasonable legal certainty for third parties:** does the skilled person understand **from the patent** that the scope of the invention is broader than what is claimed literally?
- iv. Is the allegedly infringing product **novel and inventive** over the prior art? (i.e. no successful Gillette/Formstein defence).

The evidence provided by Plant-e confirmed **technical equivalence** because the grass produced the compounds which were oxidised at the anode in order to generate electricity. The fact that the Plant-e could fail because of roots encroaching on the anode was not considered relevant because the Arkyne embodiment still applied the teachings of the patent in suit.

The equivalent protection was considered **fair protection for the patentee** because the Patent disclosed a new type of fuel cell not suggested in the prior art.

There was **reasonable legal certainty for third parties** because the teaching of the Patent is to add a plant to an MFC to provide (additional) feedstock and make the MFC independent of externally provided feedstock. The court held that the skilled person would understand that the Arkyne P-MFC provided "another way to obtain this result in a similar way."

The Arkyne P-MFC was also found by the HLD to be **novel and inventive** over the prior art because of the introduction of a plant as part of the device as a supplier of additional fuel for the battery/reactor.

Summary

Whilst the test for infringement by equivalence adopted by the HLD might change on appeal, it appears that the UPC will evolve some form of doctrine of equivalents, in line with the approach taken in national courts of member states of the UPC and currently in the UK.

For more detailed advice in relation to European practice, please do not hesitate to get in contact with your E+F representative or email us at elkfife@elkfife.com.



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