

# FUNCTIONAL CLAIMING UNDER THE EPC

## ~ General principles and case-law ~

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**Functional claiming is allowed under the EPC and related case-law, with a few disclosure-specific restrictions in its interpretation.**

It is not necessary that every feature is expressed in terms of a structural limitation. Functional features may be included, provided that a skilled person would have no difficulty in providing some means of performing this function without exercising inventive skill (F-IV, 2.1).

**A functional feature has a scope extending to all means providing the same effect. Structurally-disclosed means within the scope of the claim are only examples (T 204/90).**

**Independently from the language used (means + function or other), there is no *presumption* similar to that under 35 USC § 112 par. 6.**

Case-law has stressed a consistent application to all technical fields (engineering, chemistry, software).

## Broad (functional) claims

A claim may broadly define a feature in terms of its function, even where only one example of the feature has been given in the description, if the skilled reader would appreciate that other means could be used for the same function, unless the contents of the application convey the impression that such function is to be carried out in a particular way (F-IV, 6.5).

**However**

The extent of generalization permissible in a claim vs the disclosure is a matter which the examiner must judge on a case-by-case basis. An invention which opens up a whole new field is entitled to more generality in the claims than one which is concerned with advances in a known technology. A fair statement of claim is one which is not so broad that it goes beyond the invention nor yet so narrow as to deprive the applicant of a just reward for the disclosure of his invention. The applicant should be allowed to cover all obvious modifications of, equivalents to and uses of that which he has described. (F-IV-6.2)

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**In terms of functional claiming, the *Guidelines for Examination in the EPO* mention separately “functional features” (F-IV 6.5) and “result to be achieved” (F-IV-4.10), both defining an effect rather than a structure.**

The *Guidelines* distinguish the requirements for allowing a definition of subject-matter in terms of a result to be achieved from those for allowing a definition of subject-matter in terms of functional features (F-IV-4.10, F-IV-6.5).

Such requirements are partly unified in case-law (T 68/85, T 204/90).

**Two main issues arise under the doctrine and case law of the EPO in conjunction with functional claiming, namely:**

**sufficiency of disclosure**  
(over the broad claimed scope)  
under Art. 83 EPC

**clarity**  
(are essential structural features missing in the claim /  
is the broad language supported in the description ?)  
under Art. 84 EPC

## Clarity (Art. 84 EPC)

***T 68/85 (“An agent for selective weed control in a quantity producing a synergistic herbicidal effect”), also in F-IV-4.10***

***T 204/90 (“[...] the gripping flanges being so dimensioned as firstly to enable the device to be moved between two positions [...]”)***

Claims which attempt to define the invention by a result to be achieved should not be allowed, in particular if they only amount to claiming the underlying technical problem.

However, they may be allowed

- i. if the invention either can only be defined in such terms or cannot otherwise be defined more precisely without unduly restricting the scope of the claims, and
- ii. if the result is one which can be directly and positively verified by tests or procedures adequately specified in the description or known to the person skilled in the art and which do not require undue experimentation.

## Clarity (Art. 84 EPC)

***T 241/95 (“[...] condition which is capable of being improved or prevented by selective occupation of the serotonin receptor”), also in F-IV-4.22***

In a claim directed to a further therapeutic application of a medicament, the condition to be treated can be defined in functional terms only if experimental tests or any testable criteria are available from the patent documents or from the common general knowledge allowing the skilled person to recognize which conditions fall within the functional definition and accordingly within the scope of the claim, in particular to determine whether the therapeutic effects are a result of the newly discovered property of the medicament.

In the specific case, the selective receptor occupation was only one of the pharmacological activities of the claimed agent and no tests were available, at the application filing date, to verify whether the improvement was the result of said receptor occupation.

## Sufficiency of disclosure (Art. 83 EPC)

**T 435/91 (“[...] additive [...] capable of forcing the surfactant system [...] into hexagonal phase”)**

The protection covered by a patent should correspond to the technical contribution to the art made by the disclosure of the invention. Protection should not extend to subject-matter which, after reading the specification, is not at the disposal of the skilled person.

It must be established whether the specification discloses a single embodiment or a concept fit for generalization which makes available to the skilled person the hosts of variants encompassed by the respective “functional” definition in the claim.

## Sufficiency of disclosure (Art. 83 EPC)

**T 1063/06 (“[...] compounds[...] capable of stimulating the soluble guanylate [...]”)**

A formulation of a claim whereby functionally-defined chemical compounds are to be found by means of a new kind of research tool using a screening method set out in the description constitutes a reach-through claim which is also directed to future inventions based on the one now being disclosed and has a scope broader than the applicant actual contribution to the art and claiming unexplored fields of research.

A functional definition of a chemical compound covers all compounds possessing the capability according to the claim. In the absence of any selection rule, the skilled person, without the possibility of having recourse to his common general knowledge, must resort to extensive trial-and-error experimentation on arbitrarily selected chemical compounds to establish whether they possess the capability according to the claim; this represents for the skilled person an invitation to perform a research programme and thus an undue burden.

## Sufficiency of disclosure (Art. 83 EPC)

German Supreme Court (Bundesgerichtshof) X ZB 8/12 of 11 September 2013  
 (“[...] inhibitors of [...]”)

The patent applicant is in principle at liberty not to limit the claimed protection to embodiments that are explicitly described in the documents originally filed, but to make certain generalizations, provided that this takes account of the legitimate desire to cover the invention in its entirety.

Describing a group of compounds according to their function in a use claim is not precluded by the fact that claim wording of this kind encompasses not only compounds that are already known or are disclosed in the patent specification, but also the use of compounds that will only be provided at some time in the future; nor is it precluded by the fact that the provision of such compounds may require inventive activity.

## Sufficiency of disclosure (Art. 83 EPC)

**T 544/12 (“[...] a molecule that is a phosphorescent organometallic iridium compound [...]”)**

The opposed patent discloses five specific structures of phosphorescent iridium complexes, but do not contain any information as to how further phosphorescent iridium complexes could be identified.

The skilled person thus can only rely on trial and error to find out which further iridium complexes, out of the almost infinite host of iridium complexes covered by the structural definition of claim 1, are phosphorescent. The board acknowledges in this respect that a reasonable amount of trial and error may be acceptable.

This presupposes, however, that sufficient information is available that leads the skilled person directly towards success through the evaluation of initial failures (T 480/11, point 3.4 of the Reasons).

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## Sufficiency of disclosure (Art. 83 EPC)

**T 544/12 (“[...] a molecule that is a phosphorescent organometallic iridium compound [...]”)**

The board was aware of the decision of the German Supreme Court (Bundesgerichtshof) X ZB 8/12 of 11 September 2013.

However, the board did not share this view.

As set out in T 435/91, in order for a functional definition of a group of substances in a claim to meet the requirements of Art. 83 EPC, the substances falling under this functional definition had all to be available to the skilled person.

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**When assessing substantive patentability, the scope of protection is construed by taking into account the functional definition, unless ambiguous.**

**T 410/96 (“[...] means for carrying out method steps”)**

(In the field of computer-implemented inventions)

*“means for carrying out a function”*

must be interpreted as means adapted to carry out the function, not merely “suitable for” it.

**T 872/09 (“[...] wherein the sensor provides a measurement that correlates with the amount of analyte in a period of 10 seconds or less”).**

Legal certainty required that a claimed subject-matter cannot be regarded as novel over the prior art on the basis of an ambiguous feature (T 1049/99).

## A few take aways («global» patent drafting and enforcing)

- Do use functional claiming (means + function or other).
- Do disclose alternative structures in the description, in order for the claim to cover «equivalents» to such structures.
- Do provide alternative, structural wording - no nonces like “module” or “unit”, yes “controller”, “detector”, ... - in multiple claims.
- Do bear in mind that functional language may ease, in many jurisdiction, dealing with literal vs. equivalent infringement.
- Do also bear in mind that «future» technical means may not fall under the functional literal wording, but may be considered in equivalent infringement where assessed at the time of the infringement.



# THANK YOU FOR YOUR ATTENTION!



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