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Parameters at the EPO

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Parameters at the EPO - Summary

- This presentation will discuss the EPO approach to assessing inventions which are defined by **parameters**.
- Typical clarity problems, and associated sufficiency problems.
- Typical novelty and inventive step problems.
- Possibilities for attacking a competitor European application or patent where the invention is claimed using parameter features.
- Approximately 30 minutes



Dr Jonathan Wills

**Chemist with many years' experience
working for Japanese chemical and
materials firms**

**Frequently deals with parameter
objections in EPO prosecution and
opposition proceedings**

- A parameter is a **characteristic** of a product or method that is **determined by analytical measurement**.
- Examples include:
 - A lens...where the transmittance at the wavelength of **460 nm is 50% or more**.
 - A product...which is an isolated enantiomer having in $\text{CDCl}_3\text{-d}_1$ / $\text{D}_2\text{O-d}_2$ a doublet at **4.10 ppm with a J value of 3.3 Hz**.
 - A composition...having a viscosity greater than **100 cP at 20°C**.
 - A polymer...where the weight average molecular weight is in the range **1,000 to 5,000**.

- At the EPO it is **acceptable to define a features by its properties**: thus, a parameter may be used instead of a structural feature.
- A parameter may be used to define a single feature with a claim, and a parameter may be used as the key distinguishing feature of the invention. The parameter may be the invention.
- The EPO will consider parameter features carefully.
- Generally, there are few problems where a parameter is commonly used in the relevant technical field e.g. it is standard or commonplace.
- Most problems arise where the parameter is itself **unusual**, or the parameter is **not commonly used** in the relevant technical field. Problems arise in all cases where the method for measuring the parameter is not well described in the application.

Example Objections to Parameters at the EPO

- Art. 84 EPC - **Lack of clarity:**
 - Unclear method for determining parameter
 - Result to be achieved
 - Missing essential features
- Art. 83 EPC - **Insufficiency:**
 - A skilled person cannot carry out the invention over the whole of the broad field claimed
- Art. 54 EPC - **Lack of novelty:**
 - Disguised lack of novelty
 - Inherent disclosure in the art
- Art. 56 EPC - **Lack of inventive step:**
 - The technical problem is not solved across the scope of the claim

- The use of parameters is helpfully discussed in the EPO *Guidelines* at F-IV-4.11 ([link here](#)).

The characteristics of a product may be specified by parameters related to the physical structure of the product, provided that those parameters **can be clearly and reliably determined by objective procedures which are usual in the art**.

- Article 84 EPC - Claims:

The claims shall define the matter for which protection is sought. They shall be **clear** and concise and be **supported** by the description.

- The Examiner will follow this *Guideline* for parameters:
- the claims must be **clear**...when read by the skilled person (not including knowledge derived from the description);
- the method for measuring a parameter (or at least a reference) **must appear completely in the claim itself**; and
- an applicant needs to ensure that the skilled person can **easily and unambiguously** verify whether they are working inside or outside the scope of the claim.

Clarity Problems – Lack of Clarity

- The essential conditions for the analytical measurement are missing from the claim.
- This objection is often raised when the Examiner believes that certain analytical conditions will influence the analytical result. For example:
 - The temperature is relevant for viscosity measurements.
 - Light source and angle are relevant for certain optical measurements e.g. CIE Lab.
- Requests can vary between Examiners, and between technologies.
- Adding the relevant information to the claim is one obvious option for response.
- Claim amendment may not be needed if:
 - the known analytical methods for determining the parameter yield the **same result**.
 - the analytical method is part of the skilled person's **common general knowledge**. For example, there is only one method, or only one method is commonly used.

Clarity Problems – Lack of Clarity

- However, the clarity problem may be impossible to resolve:
 - The application may not contain a description of the analytical method to satisfy the Examiner. For example, the key analytical conditions may be missing (e.g. temperature, light source, angle).
 - The references in the application to a prior art method of analysis may not satisfy the Examiner. For example, the reference may not be specific, and the reference may not provide the key analytical conditions
 - A description of the analytical technique cannot be added into the application because of EPO added matter rules.
- It may be **necessary to delete** the unclear parameter.
- It may be necessary to use an alternative technical feature, such as an alternative parameter or a structural feature.

Clarity Problems - Result to be Achieved

- The parameter may claim the desired **result to be achieved**. This may be the technical feature that the invention is intended to provide.
- The EPO has a **preference for structural features**.
- An EPO Examiner may query a parameter feature if it considered to be the desired result. An EPO Examiner may ask that the claim include additional structural features (see also *Essential Features*).
- However, result to be achieved is permitted if:
 - Structural definitions are too limiting on the invention – fairness to the applicant
 - The desired result can be directly and positively verified by tests or procedures that are present in the description or known to the person skilled in the art and which do not require undue experimentation. Thus, an appropriate description of the analytical technique is needed.

Clarity Problems – Essential Features

- The claim must include the essential features necessary to carry out the invention
- Objections arise where the EPO Examiner considers the claim to be overly broad
- An EPO Examiner may ask for additional details to be added into the claim that are associated with, such as responsible for providing, the claimed parameter. Thus, the Examiner may ask for structural feature to be added into the claim.
- Such objections may arise where the Examiner believes that certain structural features are essential in providing the analytical characteristic
- Support objections may also be raised as a lack of inventive step
- Generalisation is permitted, where there is support from the description

- Insufficiency objections are often **linked to lack of clarity objections**.
 - Resolving the clarity objection may also resolve the insufficiency objection.
 - Insufficiency objections may be useful in attacking unclear claims in opposition (see later).

- Objections arise where the Examiner believes that:

a person skilled in the art **cannot** carry out the invention over the whole scope of the claims without undue burden using their common general knowledge

- Objections may also arise where the claim parameter is also the desired technical effect

- EPO Examiners may argue that the parameters are a disguise to hide a lack of novelty
- The Examiner can ask for the applicant to demonstrate that the prior art does not implicitly disclose the parameter feature
- This objection often arises when a new or unusual parameter is used to define a property of the invention: an EPO Examiner will be suspicious
- This is also common where the prior art uses materials and methods that are shared with the invention
- The applicant may have the **burden** of demonstrating novelty in these situation

- For inventive step, the technical effect should be achievable over the whole area claimed.
- Inventive step objections may arise where the characterising parameter is a result to be achieved - it is the technical effect - or the characterising parameter has a broad scope in relation to the worked examples.
- The **burden** may lie with the applicant to show that claim scope, and therefore parameter features, are justified

Avoiding Problems at the EPO: Suggestions and Recommendations



Avoiding Parameter Problems - Clarity

- Check that the definitions for the parameter and its methods of measurement follow the conventions used in the art
 - Check that analytical methods are described in full
 - Provide suitable general language of the analytical method for later use in the claims
 - Provide appropriate references to standards and other art methods – these reference should specifically point to the appropriate method, and with reference to the key analytical features. It may not be sufficient to simply reference a standard: some standards include multiple measurement techniques, and many standards also set out mandatory reporting information (and this may be missing from the application).
- Include alternative definitions for the parameter in the application:
 - Provide alternative methods for determining a parameter
 - Provide an **alternative parameter** that characterises product or method in a
 - Provide **structural** features that are associated with the parameter

Avoiding Parameter Problems - Novelty

- Include an appropriate description of the closest prior art with explanation for differences
 - Why do the prior art products and methods not inevitably have the claimed parameter?
- Include appropriate worked and comparative examples:
 - Worked examples to demonstrate that prior art gives products and methods that do not inevitable have the claimed parameter
 - Data can be also be used to show that apparently similar parameter values are from different products and methods: the method of analytical measurement may be the important point of distinction.
- At the EPO it is acceptable to file new worked and comparative data in examination to show novelty of claimed products and processes

Avoiding Parameter Problems – Inventive Step

- As always, provide support across the claim scope
- At the EPO it is also acceptable to file new worked and comparative data in examination to show inventiveness of claimed products and processes

Parameters as the Basis for Attacking a European Case

- The use of parameters in a competitor application or patent may be a focus for attack.
- Third-party observations and oppositions may use parameter problems as basis.
 - **Note** – clarity is **not** a ground of opposition at the EPO. Therefore, clarity problems are typically presented as problems of sufficiency, novelty or inventive step.
- The example objections previously described may be used by a third-party or an opponent.
- Examiner approach to assessing parameters may be variable, with some Examiners more generous than others. Such generosity may be the source for a later attack.
- Objections based on parameters can be difficult for the applicant/patentee to address, and therefore they can be very effective.

EPO Resources

Parameters - EPO *Guidelines* Resources

- The EPO *Guidelines* has helpful comments on the use of parameters in European patent applications and patents. Some relevant pages are linked below.
 - Parameters – general discussion – [here](#)
 - Unusual parameters - [here](#)
 - Result to be achieved – [here](#)
 - Essential features – [here](#)
 - Sufficiency and clarity - [here](#)
 - Novelty and implicit disclosure - [here](#)



**Thank you for your attention.
Please email questions to me at:**

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