Applying for a patent

The formal requirements for a European patent application are to be found in Article 78 of the European Patent Convention (EPC).

The European Patent Office accepts applications under the EPC and the Patent Cooperation Treaty (PCT) only. Applicants wishing to obtain patent protection in a small number of states only may be better advised to seek protection directly with the national offices concerned. The national requirements for the contracting states to the EPC are identical to those under Article 78 EPC.

Article 78 EPC
Requirements of a European patent application
(1) A European patent application shall contain:
(a) a request for the grant of a European patent;
(b) a description of the invention;
(c) one or more claims;
(d) any drawings referred to in the description or the claims;
(e) an abstract,
and satisfy the requirements laid down in the Implementing Regulations.

(2) A European patent application shall be subject to the payment of the filing fee and the search fee. If the filing fee or the search fee is not paid in due time, the application shall be deemed to be withdrawn.
Languages

Applications may be filed at the EPO in any language. However, according to Article 14(2) EPC, applications made in a language other than the EPO’s three official languages (English, French and German) must be translated into one of the official languages in accordance with the Implementing Regulations. Rule 6(1) EPC requires the translation to be filed within two months of the date of filing.

The official language of the EPO in which the European patent application is filed or into which it is translated is used as the language of the proceedings in all proceedings before the EPO (Article 14(3) EPC). The specification of the European patent is published in the language of the proceedings, but is also required to include a translation of the claims into the other two official languages of the EPO (Article 14(6) EPC).

The role of documentation in the application process

The elements of the documentation – the description, drawings and claims (collectively referred to as the specification) and the abstract – all have different functions within the application.

The specification (as a whole) details the patentee's invention. Elements of it are used to determine the patent’s scope of protection. It is therefore the body of the patent itself. The specification is examined in order to ensure that the subject-matter fulfils the requirements of patentability. The specification also has a role to play in determining the scope of protection, as it includes the claims, which are interpreted in the light of the description and drawings. The abstract is largely an administrative document designed to assist in the searching of patents and applications.

The abstract

The abstract provides brief technical information about the disclosure as contained in the specification. Whilst it is initially supplied by the applicant, the EPO is responsible for finalising its content (Rule 66 EPC).

The role of the abstract is solely to provide technical information in order to assist searching within the technical field in question, in other words to provide sufficient information to enable the searcher to assess whether there is any need to consult the patent application itself. The abstract has no role to play in the interpretation of the claims (and hence in determining the patent’s scope of protection) (Article 85 EPC).
Requirements for the abstract

Rule 47 EPC sets out the requirements for the content of the abstract.

The abstract must:
– Indicate the title of the invention.
– Include a concise summary of the disclosure.
– Indicate the technical field of the invention.
– Be accompanied by an indication of the figure of the drawings that should accompany it.

The abstract should not:
– Contain statements on the alleged merits or value of the invention.

It must preferably be no more than 150 words in length.

The specification

The specification is the body of the patent. It is the umbrella term used to describe a package that includes the description, drawings and claims.

The specification can be seen as a *quid pro quo* of patent protection, i.e. as the enabling information that will pass into the public domain at the end of the patent term. As such, there must be synergy between the claims (which define the invention and its scope of protection) and the description, so that the description enables a *notional person skilled in the art* to do at least what it is that the claims protect. This requirement is often referred to as “sufficiency of disclosure”.

The description and drawings

The application must disclose the invention in a manner that is sufficiently clear and complete for it to be carried out by a person skilled in the art. This requirement is satisfied by the description and the drawings.

These two elements are therefore the enabling part of the specification – i.e. the part that teaches the skilled person to put the patent into practice and the part that passes the advance made by the patentee into the public domain once the patent term has come to an end and protection has expired.
The content of the description

The description must do the following things:

(a) Identify the technical field to which the invention relates.

(b) Indicate the background art which, as far as is known to the applicant, can be regarded as useful to understand the invention, draw up the search report and examine the patent application.

(c) Disclose the invention in such a way that the technical problem or problems with which it deals can be appreciated and the solution can be understood. It should also state any advantageous effects of the invention with reference to the background art;

(d) Briefly describe the figures in the drawings (if any).

(e) Describe in detail at least one way of carrying out the invention claimed, using examples where appropriate.

(f) Indicate explicitly (where this is not obvious) the manner in which the invention is industrially applicable.

Drawings

The requirements as to the form and content of the drawings are set out in Rule 46 EPC. Most of these are merely formal: minimum margins, for example, are prescribed; drawings must be in black and white; their scale must allow details to be distinguished without difficulty when reduced in size to two-thirds.

Only absolutely indispensable text matter may be included in the drawings.

Claims – requirements

The claims are the heart of the patent. They define the invention, demarcating what is old from what is new. They also form the boundary of the exclusive territory within which the patentee is entitled to operate, i.e. they define both what must be patentable and also what is protected by the patent.

The application must contain “one or more claims” (Article 78(1) EPC).

Since the extent of the protection conferred by a European patent or patent application is determined by the claims (interpreted with the help of the description and the drawings), the clarity of the claims is of the utmost importance (Article 69(1) EPC).

The requirements for the claims can be found in Article 84 EPC.
Claim types and categories

There are two basic categories of claims:

– Claims to a physical entity (product or apparatus claims)
– Claims to an activity (process or use claims)

The category of claim dictates the acts of infringement that will be relevant to it; acts of infringement differ depending on whether the claim is for a product or a process (i.e. a physical entity or an activity).

Product-by-process claims

Claims for products defined in terms of a process of manufacture are allowable only if the products as such fulfil the requirements for patentability, e.g. *inter alia* that they are new and inventive. A product is not rendered novel merely by the fact that it is produced by means of a new process (see decision T 150/82 of the Boards of Appeal of the EPO). A claim defining a product in terms of a process is to be construed as a claim to the product as such.

Claims may be independent (i.e. they may stand by themselves) or dependent (i.e. they are parasitic upon another claim).

The claims must define the matter for which protection is sought

The claims must be drafted in terms of the “technical features of the invention” (*Rule 43(1) EPC*). They should not therefore contain any statements relating to commercial advantages or other non-technical matters. Statements of purpose will be allowable if they assist in defining the invention.

Wherever appropriate (i.e. this is not an absolute requirement), claims should be constructed in two-part form:

– The first part contains a statement indicating “the designation of the subject-matter of the invention”, i.e. the general technical class of apparatus, process, etc. to which the invention relates, followed by a statement of “those technical features which are necessary for the definition of the claimed subject-matter but which, in combination, are part of the prior art”.

– The second part is often known as the “characterising portion”, and states the features that the invention adds to the prior art, i.e. the technical features for which (in combination with the features stated in the first part) protection is sought.

Acts of infringement

For a product:

– making, offering, putting on the market, or using a product which is the subject-matter of the patent, or importing or stocking the product for these purposes (Article 25(a) CPC).

For a process:

– using a process which is the subject-matter of the patent or, when the third party knows, or it is obvious in the circumstances, that the use of the process is prohibited without the consent of the proprietor of the patent, offering the process for use in the territories of the contracting states (Article 25(b) CPC);

– offering, putting on the market or using a product obtained directly by a process which is the subject-matter of the patent, or importing or stocking the product for these purposes (Art. 25(c) CPC).

Rule 43 EPC

Form and content of claims

(1) The claims shall define the matter for which protection is sought in terms of the technical features of the invention. Wherever appropriate, claims shall contain:

(a) a statement indicating the designation of the subject-matter of the invention and those technical features which are necessary for the definition of the claimed subject-matter but which, in combination, form part of the prior art;

(b) a characterising portion, beginning with the expression “characterised in that” or “characterised by” and specifying the technical features for which, in combination with the features stated under sub-paragraph (a), protection is sought.
The claims must be clear and concise

The claims define the invention and dictate the patent’s scope of protection. It is therefore essential that they are clear.

The requirement of clarity relates both to individual claims and to the claims as a whole. The claims must not only be comprehensible from a technical point of view, but must also clearly define all the essential features of the invention (see decision T 32/82 of the Boards of Appeal of the EPO).

In the light of the different acts of infringement and other considerations that may apply, the wording of a claim should leave no doubt as to its category or type. Inconsistencies between the description and the claims should also be avoided.

The claims must be supported by the description

In order for the award of the patent monopoly to be justified, the patentee’s benefit from the zone of exclusivity that the patent provides must be balanced against the public’s benefit from the patent disclosure. This requirement is reflected in the requirement of Article 84 EPC for the claim to be “supported by the description”.

In the straightforward case, this means that the patent may not claim more than it discloses or teaches. However, the requirement for support also applies to features which are explicitly presented in the description as being essential for carrying out the invention (see decision T 1055/92 of the Boards of Appeal of the EPO). A lack of essential features in the independent claim(s) is therefore to be dealt with under the clarity and support requirements.

The requirement for support is closely linked to the requirement of sufficiency of disclosure. The specification must teach the person skilled in the art to perform the invention to the extent of the claims. Lack of support may therefore be challenged as insufficiency post-grant.