Part F

The European Patent Application

Contents

Chapter I – Introduction

Apart from the requirements of patentability (novelty, inventive step, industrial application and exclusions from patentability), a European patent application must also satisfy a number of other requirements. These include substantive requirements such as sufficiency of disclosure (Art. 83), clarity of the claims (Art. 84) and unity of invention (Art. 82) as well as requirements of a more formal nature such as the numbering of the claims (Rule 43(5)) and the form of the drawings (Rule 46). These requirements are dealt with in the present Part F.

Part F also deals with the requirements relating to the right to priority. This is because, despite the fact that this issue is usually assessed only when it has a potential bearing on a question of patentability (see G-IV, 3), it is nonetheless assessed independently of any issues of patentability.

Chapter II – Content of a European patent application (other than claims)

1. General

The requirements for a European patent application are set out in Art. 78. The application must contain: *Art. 78*

(i) a request for the grant of a European patent; *Art. 78(1)(a)*

(ii) a description of the invention; *Art. 78(1)(b)*

(iii) one or more claims; *Art. 78(1)(c)*

(iv) any drawings referred to in the description or the claims; and *Art. 78(1)(d)*

(v) an abstract. *Art. 78(1)(e)*

This Chapter deals with all these requirements, insofar as they are the concern of the examiner, with the exception of item (iii) which is the subject of Chapter F-IV. Item (v) is dealt with first.

2. Abstract

2.1 Purpose of the abstract

The application must contain an abstract. The purpose of the abstract is to give brief technical information about the disclosure as contained in the description, claims and any drawings. *Rule 57(d)* *Rule 47(5)*

2.2 Definitive content

The abstract is initially supplied by the applicant. The examiner has the task of determining its definitive content, which will normally be published with the application. In doing this, he should consider the abstract in relation to the application as filed (see B-X, 7(i)). If the search report is published later than the application, the abstract, published with the application will be the one resulting from the examination referred to in B-X, 7(i), third sentence. *Rule 66* *Rule 68*

In determining the definitive content, the examiner should take into consideration that the abstract is merely for use as technical information and in particular must not be used for the purpose of interpreting the scope of the protection sought. The abstract should be so drafted that it constitutes an efficient instrument for purposes of searching in the particular technical field and should in particular make it possible to assess whether there is need for consulting the European patent application itself. *Art. 85* *Rule 47(5)*

2.3 Content of the abstract

The abstract must:

Rule 47(1) (i) indicate the title of the invention

Rule 47(2) (ii) indicate the technical field to which the invention pertains;

Rule 47(2) (iii) contain a concise summary of the disclosure as contained in the description, claims and drawings, which must be so drafted as to allow a clear understanding of the technical problem, the gist of the solution of that problem through the invention and the principal use of the invention and, where applicable, it should contain the chemical formula which, among those contained in the application, best characterises the invention;

Rule 47(2) (iv) **not** contain statements on the alleged merits or value of the invention or its speculative application;

Rule 47(3) (v) preferably not contain more than one hundred and fifty words; and

Rule 47(4) (vi) be accompanied by an indication of the figure or exceptionally more than one figure of the drawings which should accompany the abstract. Each main feature mentioned in the abstract and illustrated by a drawing, should be followed by a reference sign in parenthesis.

2.4 Figure accompanying the abstract

Rule 47(4) The examiner should consider not only the text of the abstract but also the selection of the figures for publication with it. He should alter the text to the extent that this may be necessary in order to meet the requirements set out in F-II, 2.3. He will select a different figure, or figures, of the drawings if he considers that they better characterise the inventions.

The examiner may prevent the publication of any drawing with the abstract, where none of the drawings present in the application is useful for the understanding of the abstract. This can be done even when the applicant has requested that a particular drawing or drawings be published with the abstract according to Rule 47(4).

In determining the content of the abstract, the examiner should concentrate on conciseness and clarity, and refrain from introducing alterations merely for the purpose of embellishing the language (see B-X, 7).

2.5 Checklist

In considering the abstract, the examiner should check it against the General Guidelines for the Preparation of Abstracts of Patent Documents, using the checklist contained WIPO Standard ST.12, the relevant parts of which are annexed to this Chapter (F-II, Annex 1).

2.6 Transmittal of the abstract to the applicant

The content of the abstract is transmitted to the applicant together with the search report (see B-X, 7(i)). *Rule 66*

2.7 Abstract in examination

The general considerations relating to the abstract are set out in F-II, 2.1 to 2.6. The abstract relates to the application as filed and published and its final form for publication is determined by the Search Division. It is not necessary to bring it into conformity with the content of the published patent even if this should differ in substance from that of the application, since the patent specification does not contain an abstract. The examiner should therefore not seek any amendment of the abstract. He should, however, note that the abstract has no legal effect on the application containing it; for instance, it cannot be used to interpret the scope of protection or to justify the addition to the description of new subject-matter. *Art. 85* *Art. 98*

3. Request for grant – the title

The items making up this request are dealt with in A-III, 4. They do not normally concern the examiner, with the exception of the title.

The title should clearly and concisely state the technical designation of the invention and should exclude all fancy names (see A-III, 7.1). While any obvious failures to meet these requirements are likely to be noted during the formalities examination (and possibly during the search, see B-X, 7(ii)), the examiner should review the title in the light of his reading of the description and claims and any amendments thereto, to make sure that the title, as well as being concise, gives a clear and adequate indication of the subject of the invention. Thus, if amendments are made which change the categories of claims, the examiner should check whether a corresponding amendment is needed in the title. *Rule 41(2)(b)*

4. Description (formal requirements)

4.1 General remarks

The application must disclose the invention in a manner sufficiently clear and complete for it to be carried out by a person skilled in the art. *Art. 83* *Rule 42*

The "person skilled in the art" for this purpose is considered to be the skilled practitioner in the relevant field aware not only of the teaching of the application itself and the references therein, but also of what was common general knowledge in the art at the date of filing the application. He is assumed to have had at his disposal the means and the capacity for routine work and experimentation, which are normal for the technical field in question. As "common general knowledge" can generally be considered the information contained in basic handbooks, monographs and textbooks on the subject in question (see T 171/84). As an exception, it can also be the information contained in patent specifications or scientific publications, if the invention lies in a field of research which is so new that the relevant technical knowledge is not yet available from textbooks (see T 51/87). Sufficiency of disclosure

must be assessed on the basis of the application as a whole, including the description, claims and drawings, if any. The provisions relating to the content of the description are set out in Rule 42. The purpose of the provisions of Art. 83 and Rule 42 is:

(i) to ensure that the application contains sufficient technical information to enable a skilled person to put the invention as claimed into practice; and

(ii) to enable the reader to understand the contribution to the art which the invention as claimed has made.

4.2 Technical field

Rule 42(1)(a) The invention should be placed in its setting by specifying the technical field to which it relates.

4.3 Background art

Rule 42(1)(b)
Art. 123(2) The description should also mention any background art of which the applicant is aware, and which can be regarded as useful for understanding the invention and its relationship to the prior art; identification of documents reflecting such art, especially patent specifications, should preferably be included. This applies in particular to the background art corresponding to the first or "prior art" portion of the independent claim or claims (see F-IV, 2.2).

In principle, when filing an application the applicant should cite in the description the closest prior art known to him. It may happen that the prior art cited by the applicant is not the closest existing for the claimed invention. Therefore, the documents cited in the application as filed do not necessarily describe the known innovations closest to the claimed invention, but may in fact constitute more distantly related prior art.

The insertion into the statement of prior art of references to documents identified subsequently, for example by the search report, should be required, where necessary, to put the invention into proper perspective (see T 11/82). For instance, while the originally filed description of prior art may give the impression that the inventor has developed the invention from a certain point, the cited documents may show that certain stages in, or aspects of, this alleged development were already known. In such a case the examiner should require a reference to these documents and a brief summary of the relevant contents. The subsequent inclusion of such a summary in the description does not contravene Art. 123(2). The latter merely lays down that, if the application is amended, for example by limiting it in the light of additional information on the background art, its subject-matter must not extend beyond the content of the application as filed. But the subject-matter of the European patent application within the meaning of Art. 123(2) is to be understood – starting off from the prior art – as comprising those features which, in the framework of the disclosure required by Art. 83, relate to the invention (see also H-IV, 2.1). In addition, relevant prior art documents not cited in the original

application may be subsequently acknowledged in the description even if these were known to the applicant at the time of filing (T 2321/08 and H-IV, 2.3.7).

References to the prior art introduced after filing must be purely factual. Any alleged advantages of the invention must be adjusted if necessary in the light of the prior art.

New statements of advantage are permissible provided that they do not introduce into the description matter which could not have been deduced from the application as originally filed (see H-V, 2.2).

The applicant may cite documents in the application which relate to standard technical knowledge (background art neither addressing the same technical problem nor necessary to complete the disclosure of the claimed invention). Such citations typically relate to well-known tests for measuring certain parameters mentioned in the description or to the definitions of terms of established meaning that are used in the application. Usually they are not relevant for assessing the patentability of the claimed invention, unless for example they contain relevant information which the applicant does not mention in the description.

Acknowledgment of prior art relevant to the dependent claims only is generally not required. If the applicant indicates that subject-matter initially cited as prior art is only "in-house state of the art", such prior art may not be used in the assessment of novelty and inventive step. However, it may be allowed to remain in the description, provided the fact that it is only "in-house state of the art" is made clear.

If the relevant prior art consists of another European patent application falling within the terms of Art. 54(3), this relevant prior document belongs to the state of the art for all Contracting States. This is the case even if the two applications do not share any commonly designated State, or the designation of commonly designated States has been dropped (see G-IV, 6). The fact that this document falls under Art. 54(3) must be explicitly acknowledged. Thus the public is informed that the document is not relevant to the question of inventive step (see G-VII, 2). According to Rule 165, the above also applies to international applications designating EP, for which the filing fee pursuant to Rule 159(1)(c) has been validly paid and, where applicable, the translation into one of the official languages has been filed (Art. 153(3) and (4)) (see G-IV, 5.2). *Art. 54(3)*

For transitional provisions concerning the applicability of Art. 54(4) EPC 1973, see H-III, 4.2. *Art. 54(4) EPC 1973*

4.3.1 Format of background art citations

In citing documents or inserting references, applicants and examiners alike should use codes that allow the references to be retrieved without

difficulty. This can be best achieved through consistent use of the WIPO Standards format:

(i) for non-patent literature, WIPO Standard ST.14 (Recommendation for the Inclusion of References Cited in Patent Documents);

(ii) for patent literature (applications, granted patents and utility models): for the two-letter country code, WIPO Standard ST.3 (Recommended Standard on Two-Letter Codes for the Representation of States, Other Entities and Intergovernmental Organizations); for symbols indicating the type of document, WIPO Standard ST.16 (Recommended Standard Code for the Identification of Different Kinds of Patent Documents).

WIPO Standards ST.14, ST.3 and ST.16 can be found on the WIPO website.

However, in case of deviation from these standards there is no need to correct the codes used, as long as straightforward retrieval of the citation(s) is possible.

4.3.1.1 Examples of quotation for non-patent literature

(i) For a monograph:

WALTON Herrmann, Microwave Quantum Theory. London: Sweet and Maxwell, 1973, Vol. 2, pages 138 to 192.

(ii) For an article in a periodical:

DROP, J.G. Integrated Circuit Personalization at the Module Level. IBM tech. dis. bull. October 1974, Vol. 17, No. 5, pages 1344 and 1345.

(iii) For a separately published abstract:

Chem. abstr., Vol. 75, No. 20, 15 November 1971 (Columbus, Ohio, USA), page 16, column 1, abstract No. 120718k, SHETULOV, D.I. 'Surface Effects During Metal Fatigue,' Fiz.-Him. Meh. Mater. 1971, 7(29), 7-11 (Russ.).

Patent Abstracts of Japan, Vol. 15, No. 105 (M-1092), 13 March 1991, JP 30 02404 A (FUDO).

4.3.1.2 Examples of quotation for patent literature

(i) JP 50-14535 B (NCR CORP.) 28 May 1975 (28.05.75), column 4, lines 3 to 27.

(ii) DE 3744403 A1 (A. JOSEK) 29.08.1991, page 1, abstract.

4.4 Irrelevant matter

Rule 48(1)(c)

Since the reader is presumed to have the general technical background knowledge appropriate to the art, the examiner should not require the applicant to insert anything in the nature of a treatise or research report or explanatory matter which is obtainable from textbooks or is otherwise well-known. Likewise the examiner should not require a detailed description of the content of cited prior documents. It is sufficient that the reason for the inclusion of the reference is indicated, unless in a particular case a more detailed description is necessary for a full understanding of the invention of the application (see also F-III, 8 and F-IV, 2.3.1).

A list of several reference documents relating to the same feature or aspect of the prior art is not required; only the most appropriate need be referred to. On the other hand, the examiner should not insist upon the excision of any such unnecessary matter, except when it is very extensive (see F-II, 7.4).

4.5 Technical problem and its solution

Rule 42(1)(c)
Rule 48(1)(b)

The invention as claimed should be disclosed in such a way that the technical problem, or problems, with which it deals can be appreciated and the solution can be understood. To meet this requirement, only such details should be included as are necessary for elucidating the invention.

In cases where the subject-matter of a dependent claim can be understood either by the wording of the claim itself or by the description of a way of performing the invention, no additional explanation of this subject-matter will be necessary. A mention in the description that a particular embodiment of the invention is set out in the dependent claim will then be sufficient.

When there is doubt, however, as to whether certain details are necessary, the examiner should not insist on their excision. It is not necessary, moreover, that the invention be presented explicitly in problem-and-solution form. Any advantageous effects which the applicant considers the invention to have in relation to the prior art should be stated, but this should not be done in such a way as to disparage any particular prior product or process. Furthermore, neither the prior art nor the applicant's invention should be referred to in a manner likely to mislead. This might be done e.g. by an ambiguous presentation which gives the impression that the prior art had solved less of the problem than was actually the case. Fair comment as referred to in F-II, 7.3 is, however, permitted. Regarding amendment to, or addition of, a statement of problem, see H-V, 2.4.

4.6 Rule 42(1)(c) vs. Art. 52(1)

Rule 42(1)(c)

If it is decided that an independent claim defines a patentable invention within the meaning of Art. 52(1), it must be possible to derive a technical problem from the application. In this case the requirement of Rule 42(1)(c) is fulfilled (see T 26/81).

4.7 Reference in the description to drawings

Rule 42(1)(d)

If drawings are included they should first be briefly described, in a manner such as: "Figure 1 is a plan view of the transformer housing; Figure 2 is a side elevation of the housing; Figure 3 is an end elevation looking in the direction of the arrow X of Figure 2; Figure 4 is a cross-section taken through AA of Figure 1." When it is necessary to refer in the description to elements of the drawings, the name of the element should be referred to as well as its number, i.e. the reference should not be in the form: "3 is connected to 5 via 4" but, "resistor 3 is connected to capacitor 5 via switch 4".

4.8 Reference signs

Rule 46(2)(i)

The description and drawings should be consistent with one another, especially in the matter of reference numbers and other signs, and each number or sign must be explained. However, where as a result of amendments to the description whole passages are deleted, it may be tedious to delete all superfluous references from the drawings and in such a case the examiner should not pursue an objection under Rule 46(2)(i), as to consistency, too rigorously. The reverse situation should never occur, i.e. all reference numbers or signs used in the description or claims must also appear on the drawings.

4.9 Industrial application

Rule 42(1)(f)
Art. 52(1)
Art. 57

The description should indicate explicitly the way in which the invention is capable of exploitation in industry, if this is not obvious from the description or from the nature of the invention. The expression "capable of exploitation in industry" means the same as "susceptible of industrial application", and indeed identical expressions are used in the French and German texts of the EPC. In view of the broad meaning given to the latter expression by Art. 57 (see G-III, 1), it is to be expected that, in most cases, the way in which the invention can be exploited in industry will be self-evident, so that no more explicit description on this point will be required; but there may be a few instances, e.g. in relation to methods of testing, where the manner of industrial exploitation is not apparent and must therefore be explicitly indicated.

Rule 29(3)

Also, in relation to certain biotechnological inventions, i.e. sequences and partial sequences of genes, the industrial application is not self-evident. The industrial application of such sequences must be disclosed in the patent application (see G-III, 4).

4.10 Manner and order of presentation

Rule 42(2)

The manner and order of presentation of the description should be that specified in Rule 42(1), i.e. as set out above, unless, because of the nature of the invention, a different manner or a different order would afford a better understanding and a more economic presentation. Since the responsibility for clearly and completely describing the invention lies with the applicant, the examiner should not object to the presentation unless satisfied that such an objection would be a proper exercise of his discretion.

Some departure from the requirements of Rule 42(1) is acceptable, provided the description is clear and orderly and all the requisite information is present. For example, the requirements of Rule 42(1)(c) may be waived where the invention is based on a fortuitous discovery, the practical application of which is recognised as being useful, or where the invention breaks entirely new ground. Also, certain technically simple inventions may be fully comprehensible with the minimum of description and only slight reference to prior art.

4.11 Terminology

Although the description should be clear and straightforward with avoidance of unnecessary technical jargon, the use of recognised terms of art is acceptable, and will often be desirable. Little-known or specially-formulated technical terms may be allowed provided that they are adequately defined and that there is no generally recognised equivalent. This discretion may be extended to foreign terms when there is no equivalent in the language of the proceedings. Terms already having an established meaning should not be allowed to be used to mean something different if this is likely to cause confusion. There may, however, be circumstances where a term may legitimately be borrowed from an analogous art. Terminology and signs must be consistent throughout the application.

Rule 49(11)

4.12 Computer programs

In the particular case of inventions in the computer field, program listings in programming languages cannot be relied on as the sole disclosure of the invention. The description, as in other technical fields, should be written substantially in normal language, possibly accompanied by flow diagrams or other aids to understanding, so that the invention may be understood by a person skilled in the art who is deemed not to be a specialist in any specific programming language, but does have general programming skills. Short excerpts from programs written in commonly used programming languages can be accepted if they serve to illustrate an embodiment of the invention.

4.13 Physical values, units

When the properties of a material are referred to, the relevant units should be specified if quantitative considerations are involved. If this is done by reference to a published standard (e.g. a standard of sieve sizes) and such standard is referred to by a set of initials or similar abbreviation, it should be adequately identified in the description.

Physical values must be expressed in the units recognised in international practice, which is generally in the metric system, using SI units and the other units referred to in Chapter I of the Annex to EEC Directive 80/181/EEC of 20 December 1979, as amended by EEC Directives 85/1/EEC of 18 December 1984, 89/617/EEC of 27 November 1989, 1999/103/EC of 24 January 2000 and 2009/3/EC of 11 March 2009 (see F-II, Annex 2). Any values not meeting this requirement must also be expressed in the units recognised in international practice. Values expressed in the system of imperial units

Rule 49(10)

(e.g. inches/pounds) or in units having local character (e.g. pint), in general, do not meet the criterion "recognised in international practice".

As Rule 49(10) indicates, for mathematical formulae the symbols in general use must be employed. For chemical formulae, the symbols, atomic weights and molecular formulae in general use must be employed.

In general, use should be made of the technical terms, signs and symbols generally accepted in the field in question.

4.14 Registered trademarks

It is the applicant's responsibility to ensure that registered trademarks are acknowledged as such in the description. For the assessment of the clarity of claims referring to a trademark (Art. 84), see F-IV, 4.8. With regard to the effect of references to trademarks on sufficiency of disclosure (Art. 83), see F-III, 7.

5. Drawings

5.1 Form and content

Rule 46
Rule 46(2)(j)

The requirements relating to the form and content of drawings are set down in Rule 46. Most of these are formal (see A-IX), but the examiner may sometimes need to consider the requirements of Rule 46(2)(f), (h), (i) and (j). Of these, the only question likely to cause difficulty is whether the textual matter included on the drawings is absolutely indispensable. In the case of circuit diagrams, block schematics and flow sheets, identifying catchwords for functional integers of complex systems (e.g. "magnetic core store", "speed integrator") may be regarded as indispensable from a practical point of view if they are necessary to enable a diagram to be interpreted rapidly and clearly.

5.2 Printing quality

The examiner has also to check whether the drawings in the printing copy ("Druckexemplar") are suitable for printing. If necessary, a copy of the original drawings must be prepared as the printing copy. If, however, the quality of the original drawings is also insufficient, then the examiner must request the applicant to present drawings of sufficient quality for printing. He should, however, beware of any extension of subject-matter (Art. 123(2)).

5.3 Photographs

For the presentation of photographs, see A-IX, 1.2. In case of photographs of insufficient original quality for printing, the examiner should not request filing of better photographs, as the risk of infringing Art. 123(2) is obvious. In that case, the insufficient quality is accepted for reproduction.

6. Sequence listings

For the presentation of sequence listings in general, see A-IV, 5.

6.1 Reference to sequences disclosed in a database

The application may refer to a biological sequence belonging to the state of the art by merely providing the sequence's accession number and its version or release number in a publicly available database, without presenting the sequence itself either in a sequence listing complying with WIPO Standard ST.25 or in any other format.

Since in this case the sequence is already publicly available, the applicant does not need to supply a sequence listing. This applies even if reference is made to these sequences in one or more claims or if the sequences are essential features of the invention or necessary for the prior-art search (see J 8/11). If the European patent application discloses nucleotide or amino acid sequences that are fragments or variants of a prior-art sequence, a sequence listing complying with WIPO Standard ST.25 has to be filed for these sequence fragments or variants (see Notice from the EPO concerning the filing of sequence listings dated 18 October 2013, OJ EPO 2013, 542, I.1.5). If the database and/or the sequences in question is/are not completely and unambiguously identified, the sequences are not sufficiently disclosed according to Art. 83 and cannot be added to the application to complete the disclosure without contravening Art. 123(2) (see F-III, 2).

If such insufficiently disclosed sequences are not essential features of the claimed invention, the examiner will normally raise no objection. On the other hand, where these sequences are essential features of at least a part of the claimed subject-matter, this results in problems relating to the sufficiency of the original disclosure according to Art. 83 because the nature of the sequences cannot be unambiguously derived from the incomplete or ambiguous reference to the database.

Examples where a biological sequence is considered an essential feature of the invention would be a diagnostic method using a particular nucleic acid sequence or a product made by a biochemical process using an enzyme with a particular amino acid sequence. An example of ambiguous identification would be the citation of an accession number of a certain protein in the database of the European Molecular Biology Laboratory EMBL with no indication of which version number or database release number is meant when there are several such numbers referring to different sequences of the protein.

7. Prohibited matter

7.1 Categories

There are three categories of specifically prohibited matter, these being defined in sub-paragraphs (a) to (c) of Rule 48(1) (see also G-II, 4). *Rule 48*

7.2 Matter contrary to "ordre public" or morality

It should be noted that the omission, from the publication of the application, is mandatory for the first category. Examples of the kind of matter coming within this category are: incitement to riot or to acts of *Rule 48(1)(a)*

disorder; incitement to criminal acts; racial, religious or similar discriminatory propaganda; and grossly obscene matter.

With regard to patentability issues with such matter, see G-II, 4.1 and subsections.

7.3 Disparaging statements

Rule 48(1)(b)

It is necessary to discriminate in the second category between libellous or similarly disparaging statements, which are not allowed, and fair comment, e.g. in relation to obvious or generally recognised disadvantages, or disadvantages stated to have been found and substantiated by the applicant, which, if relevant, is permitted.

7.4 Irrelevant matter

Rule 48(1)(c)

The third category is irrelevant matter. It should be noted, however, that such matter is specifically prohibited under Rule 48(1)(c) only if it is "obviously irrelevant or unnecessary", for instance, if it has no bearing on the subject-matter of the invention or its background of relevant prior art (see also F-II, 4.4). The matter to be removed may already be obviously irrelevant or unnecessary in the original description. It may, however, be matter which has become obviously irrelevant or unnecessary only in the course of the examination proceedings, e.g. owing to a limitation of the claims of the patent to one of originally several alternatives. When matter is removed from the description, it must not be incorporated into the patent specification by reference to the corresponding matter in the published application or in any other document (see also F-III, 8).

7.5 Omission of matter from publication

Rule 48(2) and (3)

Generally, the receiving Section will deal with matter falling under category 1(a) and may have dealt with matter obviously falling within category 1(b), but if any such matter has not been so recognised and has therefore not been omitted from the publication of the application, it should be required to be removed during examination of the application together with any other prohibited matter. The applicant should be informed of the category under which matter is required to be removed.

Annex 1
Checklist for considering the abstract (see F-II, 2.5)

In the following checklist, the abstractor should, after having studied the disclosure to be abstracted, place a check in the second column after the applicable terms listed in the first column. The requirements listed in the third column corresponding to the checked items of the first column should be borne in mind by the abstractor as he prepares his abstract. Finally, the abstractor may compare his finished abstract with the checked requirements and place a corresponding checkmark in the fourth column if he is satisfied that the requirements have been met.

If the invention is a(n)	**Check here**	**The abstract should deal with:**	**If so, check here**
Article		its identity, use; construction, organization, method of manufacture	
Chemical compound		its identity (structure if appropriate); method of preparation, properties, uses	
Mixture		its nature, properties, use; essential ingredients (identity, function); proportion of ingredients, if significant; preparation	
Machine, apparatus, system		its nature, use; construction, organization; operation	
Process or operation		its nature and characterizing features; material and conditions employed; product, if significant; nature of and relationship between the steps, if more than one	
If the disclosure involves alternatives		the abstract should deal with the preferred alternative and identify the others if this can be done succinctly; if this cannot be done, it should mention that they exist and whether they differ substantially from the preferred alternative	

Total number of words less than 250: ……..... in range 50-150: ……....

Ref: Standards – ST.12/A, April 1994

Original: Handbook on Industrial Property Information and Documentation, Publication N° 208(E), 1998, WIPO, Geneva (CH).

Annex 2
Units recognised in international practice and complying with Rule 49(10) (see F-II, 4.13)*

1. SI units and their decimal multiples and submultiples

1.1 SI base units

Quantity	Unit	
	Name	Symbol
Length	metre	m
Mass	kilogram	kg
Time	second	s
Electric current	ampere	A
Thermodynamic temperature	kelvin	K
Amount of substance	mole	mol
Luminous intensity	candela	cd

Definitions of SI base units:

– Unit of length
The metre is the length of the path travelled in a vacuum by light during 1/299792458 seconds.

– Unit of mass
The kilogram is the unit of mass; it is equal to the mass of the international prototype of the kilogram.

– Unit of time
The second is the duration of 9 192 631 770 periods of the radiation corresponding to the transition between the two hyperfine levels of the ground state of the caesium 133 atom.

– Unit of electric current
The ampere is that constant current which if maintained in two straight parallel conductors of infinite length, of negligible circular cross-section and placed one metre apart in a vacuum, would produce between these conductors a force equal to 2×10^{-7} newton per metre of length.

– Unit of thermodynamic temperature
The kelvin, unit of thermodynamic temperature, is the fraction 1/273,16 of the thermodynamic temperature of the triple point of water.

This definition relates to water having the isotopic composition defined by the following amount-of-substance ratios: 0,00015576 mole of ^{2}H per mole of ^{1}H, 0,0003799 mole of ^{17}O per mole of ^{16}O and 0,0020052 mole of ^{18}O per mole of ^{16}O.

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* Based on Chapter I of the Annex to EEC Directive 80/181/EEC of 20.12.1979, as amended by EEC Directives 85/1/EEC of 18.12.1984, 89/617/EEC of 27.11.1989, 1999/103/EC of 24.01.2000 and 2009/3/EC of 11.03.2009.

– Unit of amount of substance
The mole is the amount of substance of a system which contains as many elementary entities as there are atoms in 0.012 kg of carbon 12. When the mole is used, the elementary entities must be specified and may be atoms, molecules, ions, electrons, other particles or specified groups of such particles.

– Unit of luminous intensity

The candela is the luminous intensity, in a given direction, of a source that emits monochromatic rays with a frequency of 540×10^{12} hertz and that has a radiant intensity in that direction of 1/683 watt per steradian.

1.1.1 Special name and symbol of the SI derived unit of temperature for expressing Celsius temperature

Quantity	Unit	
	Name	Symbol
Celsius temperature	degree Celsius	C

Celsius temperature t is defined as the difference $t = T-T_o$ between the two thermodynamic temperatures T and T_o where $T_o = 273.15$ K. An interval of or difference in temperature may be expressed either in kelvins or in degrees Celsius. The unit of 'degree Celsius' is equal to the unit 'kelvin'.

1.2 SI derived units

1.2.1 General rule for SI derived units

Units derived coherently from SI base units are given as algebraic expressions in the form of products of powers of the SI base units with a numerical factor equal to 1.

1.2.2 SI derived units with special names and symbols

Quantity	Unit		Expression	
	Name	Symbol	In other SI units	In terms of SI base units
Plane angle	radian	rad		$m.m^{-1}$
Solid angle	steradian	sr		$m^2.m^{-2}$
Frequency	hertz	Hz		s^{-1}
Force	newton	N		$m.kg.s^{-2}$
Pressure, stress	pascal	Pa	$N.m^{-2}$	$m^{-1}.kg.s^{-2}$
Energy, work; quantity of heat	joule	J	N.m	$m^2.kg.s^{-2}$
Power(1), radiant flux	watt	W	$J.s^{-1}$	$m^2.kg.s^{-3}$
Quantity of electricity, electric charge	coulomb	C		s.A
Electric potential, potential difference, electromotive force	volt	V	$W.A^{-1}$	$m^2.kg.s^{-3}.A^{-1}$
Electric resistance	ohm	Ω	$V.A^{-1}$	$m^2.kg.s^{-3}.A^{-2}$
Conductance	siemens	S	$A.V^{-1}$	$m^{-2}.kg^{-1}.s^3.A^2$

Quantity	Unit		Expression	
	Name	Symbol	In other SI units	In terms of SI base units
Capacitance	farad	F	$C.V^{-1}$	$m^{-2}.kg^{-1}.s^{4}.A^{2}$
Magnetic flux	weber	Wb	V.s	$m^{2}.kg.s^{-2}.A^{-1}$
Magnetic flux density	tesla	T	$Wb.m^{-2}$	$kg.s^{-2}.A^{-1}$
Inductance	henry	H	$Wb.A^{-1}$	$m^{2}.kg.s^{-2}.A^{-2}$
Luminous flux	lumen	lm	cd.sr	cd
Illuminance	lux	lx	$lm.m^{-2}$	$m^{-2}.cd$
Activity (of a radionuclide)	becquerel	Bq		s^{-1}
Absorbed dose, specific energy imparted, kerma, absorbed dose index	gray	Gy	$J.kg^{-1}$	$m^{2}.s^{-2}$
Dose equivalent	sievert	Sv	$J.kg^{-1}$	$m^{2}.s^{-2}$
Catalytic activity	katal	kat		$mol.s^{-1}$

(1) Special names for the unit of power: the name volt-ampere (symbol 'VA') is used to express the apparent power of alternating electric current, and var (symbol 'var') is used to express reactive electric power.

Units derived from SI base units may be expressed in terms of the units listed in this annex.

In particular, derived SI units may be expressed by the special names and symbols given in the above table. For example, the SI unit of dynamic viscosity may be expressed as $m^{-1}.kg.s^{-1}$ or $N.s.m^{-2}$ or Pa.s.

1.3 Prefixes and their symbols used to designate certain decimal multiples and submultiples

Factor	Prefix	Symbol	Factor	Prefix	Symbol
10^{24}	yotta	Y	10^{-1}	deci	d
10^{21}	zetta	Z	10^{-2}	centi	c
10^{18}	exa	E	10^{-3}	milli	m
10^{15}	peta	P	10^{-6}	micro	μ
10^{12}	tera	T	10^{-9}	nano	n
10^{9}	giga	G	10^{-12}	pico	p
10^{6}	mega	M	10^{-15}	femto	f
10^{3}	kilo	k	10^{-18}	atto	a
10^{2}	hecto	h	10^{-21}	zepto	z
10^{1}	deca	da	10^{-24}	yocto	y

The names and symbols of the decimal multiples and submultiples of the unit of mass are formed by attaching prefixes to the word 'gram' and their symbols to the symbol 'g'.

Where a derived unit is expressed as a fraction, its decimal multiples and submultiples may be designated by attaching a prefix to units in the numerator or the denominator, or in both these parts.

Compound prefixes, that is to say prefixes formed by the juxtaposition of several of the above prefixes, may not be used.

1.4 Special authorised names and symbols of decimal multiples and submultiples of SI units

Quantity	Unit		
	Name	Symbol	Value
Volume	litre	l or L[(1)]	1 l = 1 dm^3 = 10^{-3} m^3
Mass	tonne	t	1 t = 1 Mg = 10^3 kg
Pressure, stress	bar	bar	1 bar = 10^5 Pa

(1) The two symbols 'l' and 'L' may be used for the litre unit.

The prefixes and their symbols listed in F-II, Annex 2, 1.3 may be used in conjunction with the units and symbols contained in this table.

2. Units which are defined on the basis of SI units but are not decimal multiples or submultiples thereof

Quantity	Unit		
	Name	Symbol	Value
Plane angle	revolution[(a)]		1 revolution = 2 π rad
	grade or gon	gon	1 gon = π / 200 rad
	degree	°	1° = π / 180 rad
	minute of angle	'	1' = π / 10 800 rad
	second of angle	"	1" = π / 648 000 rad
Time	minute	min	1 min = 60 s
	hour	h	1 h = 3 600 s
	day	d	1 d = 86 400 s

(a) No international symbol exists

The prefixes listed in F-II, Annex 2, 1.3 may only be used in conjunction with the names 'grade' or 'gon' and the symbols only with the symbol 'gon'.

3. Units used with the SI, and whose values in SI are obtained experimentally

The unified atomic mass unit is 1/12 of the mass of an atom of the nuclide ^{12}C.

The electronvolt is the kinetic energy acquired by an electron passing through a potential difference of 1 volt in a vacuum.

Quantity	Unit		
	Name	Symbol	Value
Mass	unified atomic mass unit	U	1 u ≈ 1,6605655 x 10^{-27} kg
Energy	electronvolt	eV	1eV ≈ 1,6021892 x 10^{-19} J

The value of these units, expressed in SI units, is not known exactly.

The prefixes and their symbols listed in F-II, Annex 2, 1.3 may be used in conjunction with these two units and with their symbols.

4. Units and names of units permitted in specialised fields only

Quantity	Unit Name	Symbol	Value
Vergency of optical systems	Dioptre		1 dioptre = 1 m^{-1}
Mass of precious stones	metric carat		1 metric carat = 2 x 10^{-4} kg
Area of farmland and building land	are	a	1 a = 10^2 m^2
Mass per unit length of textile yarns and threads	tex	tex	1 tex = 10^{-6} $kg.m^{-1}$
Blood pressure and pressure of other body fluids	millimetre of mercury	mm Hg	1 mm Hg = 133,322 Pa
Effective cross-sectional area	Barn	b	1b = 10^{-28} m^2

The prefixes and their symbols listed in F-II, Annex 2, 1.3 may be used in conjunction with the above units and symbols, with the exception of the millimetre of mercury and its symbol. The multiple of 10^2 a is, however, called a "hectare".

5. Compound units

Combinations of the units listed in this annex form compound units.

Chapter III – Sufficiency of disclosure

1. Sufficiency of disclosure

Rule 42(1)(e)
Art. 83

A detailed description of at least one way of carrying out the invention must be given. Since the application is addressed to the person skilled in the art, it is neither necessary nor desirable that details of well-known ancillary features should be given, but the description must disclose any feature essential for carrying out the invention in sufficient detail to render it apparent to the skilled person how to put the invention into practice. A single example may suffice, but where the claims cover a broad field, the application should not usually be regarded as satisfying the requirements of Art. 83 unless the description gives a number of examples or describes alternative embodiments or variations extending over the area protected by the claims. However, regard must be had to the facts and evidence of the particular case. There are some instances where even a very broad field is sufficiently exemplified by a limited number of examples or even one example (see also F-IV, 6.3). In these latter cases the application must contain, in addition to the examples, sufficient information to allow the person skilled in the art, using his common general knowledge, to perform the invention over the whole area claimed without undue burden and without needing inventive skill (see T 727/95). In this context, the *"whole area claimed"* is to be understood as substantially any embodiment falling within the ambit of a claim, even though a limited amount of trial and error may be permissible, e.g. in an unexplored field or when there are many technical difficulties (see T 226/85 and T 409/91).

With regard to Art. 83, an objection of lack of sufficient disclosure presupposes that there are serious doubts, substantiated by verifiable facts (see T 409/91 and T 694/92). If the Examining Division is able, under the particular circumstances, to make out a reasoned case that the application lacks sufficient disclosure, the onus of establishing that the invention may be performed and repeated over substantially the whole of the claimed range lies with the applicant (see F-III, 4).

Art. 83
Rule 42(1)(c) and (e)

For the requirements of Art. 83 and of Rule 42(1)(c) and (e) to be fully satisfied, it is necessary that the invention is described not only in terms of its structure but also in terms of its function, unless the functions of the various parts are immediately apparent. Indeed in some technical fields (e.g. computers), a clear description of function may be much more appropriate than an over-detailed description of structure.

Rule 63

In cases where it is found that an application is sufficiently disclosed according to Art. 83 only in respect of a part of the claimed subject-matter, this may have led to the issuing of a partial European or supplementary European search report according to Rule 63 (see B-VIII, 3.1 and 3.2). In such cases, in the absence of appropriate

amendment, an objection under Rule 63(3) will also arise (see H-II, 5 and 6.1).

2. Art. 83 vs. Art. 123(2)

Art. 83
Art. 123(2)

It is the responsibility of the applicant to ensure that he supplies, on filing his application, a sufficient disclosure, i.e. one that meets the requirements of Art. 83 in respect of the invention as claimed in all of the claims. If the claims define the invention, or a feature thereof, in terms of parameters (see F-IV, 4.11), the application as filed must include a clear description of the methods used to determine the parameter values, unless a person skilled in the art would know what method to use or unless all methods would yield the same result (see F-IV, 4.18). If the disclosure is seriously insufficient, such a deficiency cannot be cured subsequently by adding further examples or features without offending against Art. 123(2), which requires that amendments may not result in the introduction of subject-matter which extends beyond the content of the application as filed (see H-IV, 2.1, see also H-V, 2.2). Therefore, in such circumstances, the application must normally be refused. If, however, the deficiency arises only in respect of some embodiments of the invention and not others, it could be remedied by restricting the claims to correspond to the sufficiently described embodiments only, the description of the remaining embodiments being deleted.

3. Insufficient disclosure

Art. 83

Occasionally applications are filed in which there is a fundamental insufficiency in the invention in the sense that it cannot be carried out by a person skilled in the art; there is then a failure to satisfy the requirements of Art. 83 which is essentially irreparable. Two instances deserve special mention. The first is where the successful performance of the invention is dependent on chance. That is to say, the skilled person, in following the instructions for carrying out the invention, finds either that the alleged results of the invention are unrepeatable or that success in obtaining these results is achieved in a totally unreliable way. An example where this may arise is a microbiological process involving mutations. Such a case should be distinguished from one where repeated success is assured even though accompanied by a proportion of failures, as can arise e.g. in the manufacture of small magnetic cores or electronic components. In this latter case, provided the satisfactory parts can be readily sorted by a non-destructive testing procedure, no objection arises under Art. 83. The second instance is where successful performance of the invention is inherently impossible because it would be contrary to well-established physical laws – this applies e.g. to a perpetual motion machine. If the claims for such a machine are directed to its function, and not merely to its structure, an objection arises not only under Art. 83 but also under Art. 52(1) in that the invention is not "susceptible of industrial application" (see G-III, 1).

4. Burden of proof as regards the possibility of performing and repeating the invention

If there are serious doubts as regards the possibility of performing the invention and repeating it as described, the burden of proof as regards this possibility, or at least a demonstration that success is credible, rests with the applicant or the proprietor of the patent. In opposition, this may be the case where, for example, experiments carried out by the opponent suggest that the subject-matter of the patent does not achieve the desired technical result. As regards the possibility of performing and repeating the invention, see also F-III, 3.

5. Cases of partially insufficient disclosure

5.1 Only variants of the invention are incapable of being performed

The fact that only variants of the invention, e.g. one of a number of embodiments of it, are not capable of being performed should not immediately give rise to the conclusion that the subject-matter of the invention as a whole is incapable of being performed, i.e. is incapable of resolving the problem involved and therefore of achieving the desired technical result.

Those parts of the description relating to the variants of the invention which are incapable of being performed and the relevant claims must, however, then be deleted or marked background information that is not part of the invention (see F-IV, 4.3(iii)) at the request of the Division if the deficiency is not remedied. The specification must then be so worded that the remaining claims are supported by the description and do not relate to embodiments which have proved to be incapable of being performed.

5.2 Absence of well-known details

For the purposes of sufficient disclosure the specification does not need to describe all the details of the operations to be carried out by the person skilled in the art on the basis of the instructions given, if these details are well-known and clear from the definition of the class of the claims or on the basis of common general knowledge (see also F-III, 1 and F-IV, 4.5).

5.3 Difficulties in performing the invention

An invention should not be immediately regarded as incapable of being performed on account of a reasonable degree of difficulty experienced in its performance ("teething troubles", for example).

1st example: The difficulties which could, for example, arise from the fact that an artificial hip joint could be fitted to the human body only by a surgeon of great experience and above-average ability would not prevent manufacturers of orthopaedic devices from deriving complete information from the description with the result that they could reproduce the invention with a view to making an artificial hip joint.

2nd example: A switchable semiconductor which, according to the invention, is used for switching electrical circuits on and off without using contacts, thereby making for smoother operation, suffers from teething troubles in that a residual current continues to flow in the circuit when switched off. However, this residual current adversely affects the use of the electrical switch in certain fields only, and can otherwise be reduced to negligible proportions by routine further development of the semiconductor.

6. Inventions relating to biological material

6.1 Biological material

Rule 26(3)
Rule 31(1)

Applications relating to biological material are subject to the special provisions set out in Rule 31. In accordance with Rule 26(3), the term "biological material" means any material containing genetic information and capable of reproducing itself or being reproduced in a biological system. If an invention involves the use of or concerns biological material which is not available to the public and which cannot be described in the European patent application in such a manner as to enable the invention to be carried out by a person skilled in the art, the disclosure is not considered to have satisfied the requirements of Art. 83 unless the requirements of Rule 31(1), (2), first and second sentences, and 33(1), first sentence, have been met.

6.2 Public availability of biological material

The examiner must form an opinion as to whether or not the biological material is available to the public. There are several possibilities. The biological material may be known to be readily available to those skilled in the art, e.g. baker's yeast or Bacillus natto, which is commercially available, it may be a standard preserved strain, or other biological material which the examiner knows to have been preserved in a recognised depositary institution and to be available to the public without restriction (see Notice from the European Patent Office dated 7 July 2010, OJ EPO 2010, 498). Alternatively, the applicant may have given in the description sufficient information as to the identifying characteristics of the biological material and as to the prior availability to the public without restriction in a depositary institution recognised for the purposes of Rule 33(6) to satisfy the examiner (see Notice from the European Patent Office dated 7 July 2010, OJ EPO 2010, 498). In any of these cases no further action is called for. If, however, the applicant has given no or insufficient information on public availability and the biological material is a particular strain not falling within the known categories such as those already mentioned, then the examiner must assume that the biological material is not available to the public. He must also examine whether the biological material could be described in the European patent application in such a manner as to enable the invention to be carried out by a person skilled in the art (see, in particular, F-III, 3 and G-II, 5.5).

6.3 Deposit of biological material

If the biological material is not available to the public and if it cannot be described in the application in such a manner as to enable the invention to be carried out by a person skilled in the art, the examiner must check:

(i) whether the application as filed gives such relevant information as is available to the applicant on the characteristics of the biological material. The relevant information under this provision concerns the classification of the biological material and significant differences from known biological material. For this purpose, the applicant must, to the extent available to him, indicate morphological and biochemical characteristics and the proposed taxonomic description. *Rule 31(1) and (2)*

The information on the biological material in question which is generally known to the skilled person on the date of filing is as a rule presumed to be available to the applicant and must therefore be provided by him. If necessary, it has to be provided through experiments in accordance with the relevant standard literature.

For characterising bacteria, for example, the relevant standard work would be R.E. Buchanan, N.E. Gibbons: Bergey's Manual of Determinative Bacteriology.

Against this background, information should then be given on every further specific morphological or physiological characteristic relevant for recognition and propagation of the biological material, e.g. suitable media (composition of ingredients), in particular where the latter are modified.

Abbreviations for biological material or media are often less well known than the applicant assumes and should therefore be avoided or written in full at least once.

If biological material is deposited that cannot replicate itself but must be replicated in a biological system (e.g. viruses, bacteriophages, plasmids, vectors or free DNA or RNA), the above-mentioned information is also required for such biological system. If, for example, other biological material is required, such as host cells or helper viruses, that cannot be sufficiently described or is not available to the public, this material must also be deposited and characterised accordingly. In addition, the process for producing the biological material within this biological system must be indicated.

In many cases the above required information will already have been given to the depositary institution (see Rule 6.1(a)(iii) and 6.1(b) Budapest Treaty) and need only be incorporated into the application;

(ii) whether the name of the depositary institution and the accession number of the deposit were supplied at the date of filing. If the name of the depositary institution and the accession number of the deposit were submitted later, it should be checked whether they were filed within the relevant period under Rule 31(2). If that is the case, it should then further be checked whether on the filing date any reference was supplied which enables the deposit to be related to the later filed accession number. Normally the identification reference which the depositor himself gave to his deposit is used in the application documents. The relevant document for later filing the data pursuant to Rule 31(1)(c) could be a letter containing the name of the depositary institution, the accession number and the above-mentioned identification reference or, alternatively, the deposit receipt, which contains all these data (see also G 2/93 and A-IV, 4.2); and

(iii) whether the deposit was made by a person other than the applicant and, if so, whether the name and the address of the depositor are stated in the application or were supplied within the relevant period under Rule 31(2). In such a case, the examiner must also check whether the document fulfilling the requirements mentioned in Rule 31(1)(d) was submitted to the EPO within the same time limit (see A-IV, 4.1, for details of when this document referred to in Rule 31(1)(d) is required).

The examiner, in addition to the checks referred to under (i) to (iii) above, asks for the deposit receipt issued by the depositary institution (see Rule 7.1 Budapest Treaty) or for equivalent proof of the deposit of a biological material if such proof has not been filed before (see (ii) above and A-IV, 4.2). This is to provide evidence for the indications made by the applicant pursuant to Rule 31(1)(c).

If this deposit receipt has already been filed within the relevant time period according to Rule 31(2), this document on its own is regarded as submission of the information according to Rule 31(1)(c).

Rule 33(6)

In addition, the depositary institution named must be one of the recognised institutions listed in the Official Journal of the EPO. An up-to-date list is regularly published in the Official Journal.

If any of these requirements is not satisfied, the biological material in question cannot be considered as having been disclosed pursuant to Art. 83 by way of reference to the deposit.

Rule 31
Rule 40(1)(c)
Rule 56(2) and (3)

Moreover, there are two situations in which the applicant can file information concerning the deposit which is required under Rule 31(1)(c), and where applicable also under Rule 31(1)(d), in a document filed after the accorded filing date and within the relevant time limit for filing that document, but after the expiry of one of the time limits under Rule 31(2)(a) to (c). As in the preceding paragraph, the consequence of the information being filed after the relevant time limit

under Rule 31(2) is that the biological material is deemed not to have been disclosed pursuant to Art. 83 by way of reference to the deposit. These situations are those in which the information concerning the deposit is contained in either:

(i) a previously filed application to which reference is made under Rule 40(1)(c), the copy of that application being filed within either the two-month period under Rule 40(3) or that under Rule 55; or

(ii) missing parts of the description filed later, within the two-month period under Rule 56(2), when the requirements of Rule 56(3) are satisfied, so that the application is not re-dated.

6.4 Priority claim

An application may claim the priority of a previous application with regard to unavailable biological material mentioned in F-III, 6.1. In this case, the invention is considered disclosed in the previous application for the purpose of the priority claim under Art. 87(1) only if the deposit of the biological material was made no later than the date of filing of the previous application and in accordance with the requirements of the country in which it was filed. Also, the reference to the deposit in the previous application must be made in a manner enabling it to be identified. Where the deposit of the biological material referred to in the European patent application is not the same as the deposit referred to in the priority, it is up to the applicant, if the EPO considers it necessary, to provide evidence that the biological material is identical (see also Notice from the EPO dated 7 July 2010, OJ EPO 2010, 498).

6.5 Euro-PCT cases

International applications relating to the aforementioned unavailable biological material and designating or electing the EPO must comply with Rule 13*bis* PCT in conjunction with Rule 31. That means that for sufficient disclosure of the material the deposit with a recognised depositary institution must be made not later than the international filing date, relevant information must be given in the application and the necessary indications must be furnished as required during the international phase (see also Notice from the EPO dated 7 July 2010, OJ EPO 2010, 498).

7. Proper names, trademarks and trade names

The use of proper names, trademarks or trade names or similar words to refer to materials or articles is undesirable insofar as such words merely denote origin or where they may relate to a range of different products. If such a word is used, then, where it is necessary in order to satisfy the requirements of Art. 83, the product must be sufficiently identified, without reliance upon the word, to enable the invention to be carried out by the skilled person at the date of filing. However, where such words have become internationally accepted as standard descriptive terms and have acquired a precise meaning (e.g. "Bowden" cable, "Belleville" washer, "Panhard" rod, "caterpillar"

belt) they may be allowed without further identification of the product to which they relate. For the assessment of the clarity of claims referring to a trademark (Art. 84), see F-IV, 4.8.

8. Reference documents

References in European patent applications to other documents may relate either to the background art or to part of the disclosure of the invention.

Where the reference document relates to the background art, it may be in the application as originally filed or introduced at a later date (see F-II, 4.3 and 4.4, and H-IV, 2.3.7).

Where the reference document relates directly to the disclosure of the invention (e.g. details of one of the components of a claimed apparatus), then the examiner should first consider whether knowing what is in the reference document is in fact essential for carrying out the invention as meant by Art. 83.

If not essential, the usual expression “which is hereby incorporated by reference”, or any expression of the same kind, should be deleted from the description.

Art. 65

If matter in the document referred to is essential to satisfy the requirements of Art. 83, the examiner should require the deletion of the above-mentioned expression and that, instead, the matter is expressly incorporated into the description, because the patent specification should, regarding the essential features of the invention, be self-contained, i.e. capable of being understood without reference to any other document. One should also bear in mind that reference documents are not part of the text to be translated pursuant to Art. 65 (T 276/99).

Such incorporation of essential matter or essential features is, however, subject to the restrictions set out in H-IV, 2.3.1. It may be that the Search Division has requested the applicant to furnish the document referred to, in order to be able to carry out a meaningful search (see B-IV, 1.3).

If, for the disclosure of the invention, a document is referred to in an application as originally filed, the relevant content of the reference document is to be considered as forming part of the content of the application for the purpose of citing the application under Art. 54(3) against later applications. For reference documents not available to the public before the filing date of the application this applies only if the conditions set out hereto in H-IV, 2.3.1 are fulfilled.

Because of this effect under Art. 54(3), it is very important that, where a reference is directed only to a particular part of the document referred to, that part should be clearly identified in the reference.

9. "Reach-through" claims

In certain technical areas (e.g. biotechnology, pharmacy) cases occur where:

(i) one of the following and its use in a screening method have been defined as the only contribution to the art

- a polypeptide
- a protein
- a receptor
- an enzyme, etc., or

(ii) a new mechanism of action of such molecule has been defined.

It may happen that such applications contain so-called "reach-through" claims, i.e. claims directed to a chemical compound (or the use of that compound) defined only in functional terms with regard to the technical effect it exerts on one of the above molecules.

Typical examples of such claims would be: "An agonist/antagonist to polypeptide X [optionally as identified by the screening method of claim A]."; "An agonist/antagonist to polypeptide X [optionally as identified by the screening method of claim A], for use in therapy."; "An agonist/antagonist to polypeptide X [optionally as identified by the screening method of claim A], for use in the treatment of disease Y.", where the description indicates that polypeptide X is involved in disease Y.

According to Art. 83 and Rule 42(1)(c), the claim must contain sufficient technical disclosure of the solution to the problem. A functional definition of a chemical compound ("reach-through" claim) covers all compounds possessing the activity or effect specified in the claim. It would be an undue burden to isolate and characterise all potential compounds (e.g. agonists/antagonists), without any effective pointer to their identity (see F-III, 1), or to test every known compound and every conceivable future compound for this activity to see if it falls within the scope of the claim. In effect, the applicant is attempting to patent what has not yet been invented, and the fact that the applicant can test for the effect used to define the compounds does not necessarily confer sufficiency on the claim; in fact it constitutes an invitation for the skilled person to perform a research programme (see T 435/91 (Reasons 2.2.1), followed by T 1063/06 (Headnote II)).

In general, claims directed to merely functionally defined chemical compounds that are to be found by means of a new kind of research tool (e.g. using a new screening method based on a newly discovered molecule or a new mechanism of action) are directed to future inventions, for which patent protection under the EPC is not designed.

In the case of such "reach-through" claims, it is both reasonable and imperative to limit the subject-matter of the claims to the actual contribution to the art (see T 1063/06 (Headnote I)).

10. Sufficiency of disclosure and Rule 56

Under Rule 56, missing parts may be withdrawn in order to maintain the original filing date, and these parts are then deemed to be no longer part of the application (see also A-II, 5.4.2 and 5.5, C-III, 1, and H-IV, 2.3.2).

In this case, the examiner must carefully evaluate whether the invention is still sufficiently disclosed without relying on the technical information contained in the withdrawn missing parts. Should the examiner reach the conclusion that the requirements of Art. 83 are not satisfied, a corresponding objection is raised. Ultimately, the application may be refused for lack of sufficient disclosure (see F-III, 3 to 5).

11. Sufficiency of disclosure and clarity

An ambiguity in the claims may lead to an insufficiency objection. However, ambiguity also relates to the scope of the claims, i.e. Art. 84 (see F-IV, 4). Normally, therefore, an ambiguity in a claim will lead to an objection under Art. 83 only if the whole scope of the claim is affected, in the sense that it is impossible to carry out at all the invention defined therein. Otherwise an objection under Art. 84 is appropriate (see T 608/07).

In particular, where a claim contains an ill-defined ("unclear", "ambiguous") parameter (see also F-IV, 4.11), and the skilled person is not able, on the basis of the disclosure as a whole and using his common general knowledge, to identify (without undue burden) the technical measures necessary to solve the problem underlying the application at issue, an objection under Art. 83 should be raised. The issue in case of an ill-defined parameter, that the skilled person would not know whether he was working within or outside of the scope of the claim, relates to a lack of clear definition and is independently a matter for objection under Art. 84. See T 593/09.

There is a delicate balance between Art. 83 and Art. 84, which has to be assessed on the merits of each individual case. Care has therefore to be taken in opposition that an insufficiency objection is not merely a hidden objection under Art. 84, especially in the case of ambiguities in the claims (T 608/07). On the other hand, even though lack of support/clarity is not a ground for opposition (see also F-IV, 6.4), a problem related to it may in fact be of concern under Art. 83.

12. Sufficiency of disclosure and inventive step

If the claimed invention lacks reproducibility, this may become relevant under the requirements of sufficiency of disclosure or inventive step. If an invention lacks reproducibility because its desired technical effect as expressed in the claim is not achieved, this results in a lack of

sufficient disclosure, which has to be objected to under Art. 83. Since the technical effect is part of the solution proposed in the claim, it cannot be part of the problem underlying the application. Otherwise, i.e. if the effect is not expressed in the claim but is part of the problem to be solved, there is a problem of inventive step (see G 1/03, reasons 2.5.2, T 1078/08, T 1019/10, T 5/06 and T 380/05).

Chapter IV – Claims (Art. 84 and formal requirements)

1. General

The application must contain "one or more claims". *Art. 78(1)(c)*

These must: *Art. 84*

(i) "define the matter for which protection is sought";

(ii) "be clear and concise"; and

(iii) "be supported by the description".

Since the extent of the protection conferred by a European patent or application is determined by the claims (interpreted with the help of the description and the drawings), clarity of the claims is of the utmost importance (see also F-IV, 4). *Art. 69(1)*

2. Form and content of claims

2.1 Technical features

The claims must be drafted in terms of the "technical features of the invention". This means that claims should not contain any statements relating, for example, to commercial advantages or other non-technical matters, but statements of purpose should be allowed if they assist in defining the invention. *Rule 43(1)*

It is not necessary that every feature should be 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 (see F-IV, 6.5). For the specific case of a functional definition of a pathological condition, see F-IV, 4.22.

Claims to the use of the invention, in the sense of the technical application thereof, are allowable.

2.2 Two-part form

Rule 43(1)(a) and (b) define the two-part form which a claim should have "wherever appropriate". The first part should contain 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". This statement of prior-art features is applicable only to independent claims and not to dependent claims (see F-IV, 3.4). It is clear from the wording of Rule 43 that it is necessary only to refer to those prior-art features which are relevant to the invention. For example, if the invention *Rule 43(1)*

relates to a photographic camera but the inventive step relates entirely to the shutter, it would be sufficient for the first part of the claim to read: "A photographic camera including a focal plane shutter" and there is no need to refer also to the other known features of a camera such as the lens and view-finder. The second part or "characterising portion" should state the features which the invention adds to the prior art, i.e. the technical features for which, in combination with the features stated in sub-paragraph (a) (the first part), protection is sought.

If a single document in the state of the art according to Art. 54(2), e.g. cited in the search report, reveals that one or more features in the second part of the claim were already known in combination with all the features in the first part of the claim and in that combination have the same effect as they have in the full combination according to the invention, the examiner should require that such feature or features be transferred to the first part. Where, however, a claim relates to a novel combination, and where the division of the features of the claim between the prior-art part and the characterising part could be made in more than one way without inaccuracy, the applicant should not be pressed, unless there are very substantial reasons, to adopt a different division of the features from that which he has chosen, if his version is not incorrect.

If the applicant insists on including more features in the preamble than can be derived from the closest available prior art, this should be accepted. If no other prior art is available, such a pre-characterising portion could be used to raise an objection on the ground of lack of inventive step.

2.3 Two-part form unsuitable

Subject to what is stated in F-IV, 2.3.2, final sentence, the applicant should be required to follow the above two-part formulation in his independent claim or claims, where, for example, it is clear that his invention resides in a distinct improvement in an old combination of parts or steps. However, as is indicated by Rule 43, this form need be used only in appropriate cases. The nature of the invention may be such that this form of claim is unsuitable, e.g. because it would give a distorted or misleading picture of the invention or the prior art. Examples of the kind of invention which may require a different presentation are:

(i) the combination of known integers of equal status, the inventive step lying solely in the combination;

(ii) the modification of, as distinct from addition to, a known chemical process e.g. by omitting one substance or substituting one substance for another; and

(iii) a complex system of functionally inter-related parts, the inventive step concerning changes in several of these or in their inter-relationships.

In examples (i) and (ii), the Rule 43 form of claim may be artificial and inappropriate, whilst in example (iii) it might lead to an inordinately lengthy and involved claim. Another example in which the Rule 43 form of claim may be inappropriate is where the invention is a new chemical compound or group of compounds. It is likely also that other cases will arise in which the applicant is able to adduce convincing reasons for formulating the claim in a different form.

2.3.1 No two-part form

There is a special instance in which the Rule 43 form of claim should be avoided. This is when the only relevant prior art is another European patent application falling within the terms of Art. 54(3). Such prior art should however be clearly acknowledged in the description (see F-II, 4.3, penultimate paragraph, and 4.4). *Art. 54(3)*

2.3.2 Two-part form "wherever appropriate"

When examining whether or not a claim is to be put in the form provided for in Rule 43(1), second sentence, it is important to assess whether this form is "appropriate". In this respect it should be borne in mind that the purpose of the two-part form is to allow the reader to see clearly which features necessary for the definition of the claimed subject-matter are, in combination, part of the prior art. If this is sufficiently clear from the indication of prior art made in the description, to meet the requirement of Rule 42(1)(b), the two-part form should not be insisted upon.

2.4 Formulae and tables

The claims, as well as the description, may contain chemical or mathematical formulae but not drawings. The claims may contain tables but "only if their subject-matter makes the use of tables desirable". In view of the use of the word "desirable" in this Rule, the examiner should not object to the use of tables in claims where this form is convenient. *Rule 49(9)*

3. Kinds of claim

3.1 Categories

The EPC refers to different "categories" of claim ("products, process, apparatus or use"). For many inventions, claims in more than one category are needed for full protection. In fact, there are only two basic kinds of claim, viz. claims to a physical entity (product, apparatus) and claims to an activity (process, use). The first basic kind of claim ("product claim") includes a substance or compositions (e.g. chemical compound or a mixture of compounds) as well as any physical entity (e.g. object, article, apparatus, machine, or system of co-operating apparatus) which is produced by a person's technical skill. Examples are: "a steering mechanism incorporating an automatic feed-back circuit ..."; "a woven garment comprising ..."; "an insecticide consisting of X, Y, Z"; or "a communication system comprising a plurality of transmitting and receiving stations". The second basic kind of claim ("process claim") is applicable to all kinds of activities in which the use *Rule 43(2)*

of some material product for effecting the process is implied; the activity may be exercised upon material products, upon energy, upon other processes (as in control processes) or upon living things (see, however, G-II, 4.2 and 5.4).

3.2 Number of independent claims

Rule 43(2)

According to Rule 43(2), as applicable to all European patent applications in respect of which a communication under Rule 51(4) EPC 1973 (corresponding to Rule 71(3) EPC 2000) was not issued by 2 January 2002, the number of independent claims is limited to one independent claim in each category.

Exceptions from this rule can only be admitted in the specific circumstances defined in sub-paragraphs (a), (b) or (c) of this rule, provided the requirement of Art. 82 with regard to unity is met (see F-V).

The following are examples of typical situations falling within the scope of the exceptions from the principle of one independent claim per category:

(i) Examples of a plurality of interrelated products (Rule 43(2)(a))

- plug and socket
- transmitter – receiver
- intermediate(s) and final chemical product
- gene – gene construct – host – protein – medicament

For the purpose of Rule 43(2)(a), the term "interrelated" is interpreted to mean "different objects that complement each other or work together". In addition, Rule 43(2)(a) can be interpreted as covering apparatus claims, since the term "products" is considered to include apparatuses. Likewise, it may include systems, sub-systems and sub-units of such systems, as long as these entities are interrelated. Interrelated methods claims may also fall under the exception of Rule 43(2)(a).

(ii) Examples of a plurality of different inventive uses of a product or apparatus (Rule 43(2)(b))

- claims directed to further medical uses when a first medical use is known (see G-II, 4.2)
- claims directed to the use of compound X for multiple purposes, e.g. for cosmetically fortifying hair and for promoting hair growth

(iii) Examples of alternative solutions to a particular problem (Rule 43(2)(c))

- a group of chemical compounds
- two or more processes for the manufacture of such compounds

(iv) Examples of allowable claim types

– Claims directed to multiple methods involving a novel and inventive polypeptide P, e.g. an enzyme that controls a specific step in the synthesis of a compound:

a method for manufacturing the polypeptide P,

a method for manufacturing the compound by using either the isolated polypeptide or host cells expressing said polypeptide,

a method for selecting a host cell based on whether or not it expresses the polypeptide of the invention.

– A data sending method for sending a data packet between a plurality of devices coupled to a bus;

a data receiving method for receiving a data packet between a plurality of devices coupled to a bus.

– A certain circuit – apparatus comprising that circuit (the apparatus claim may also be considered to be dependent on the circuit claim, because it comprises all the features of the circuit claim);

– Methods of operating a data-processing system comprising steps A, B, … – a data-processing apparatus/system comprising means for carrying out said method – a computer program [product] adapted to perform said method – a computer-readable storage medium/data carrier comprising said program;

Note however that when several independent claims are directed to equivalent embodiments that are not sufficiently different (e.g. computer program adapted to perform said method, optionally carried on an electric carrier signal – computer program comprising software code adapted to perform method steps A, B, …), the exceptions under Rule 43(2) usually do not apply.

For the purpose of Rule 43(2)(c), the term "alternative solutions" can be interpreted as "different or mutually exclusive

possibilities". Moreover, if it is possible to cover alternative solutions by a single claim, the applicant should do so. For example, overlaps and similarities in the features of the independent claims of the same category are an indication that it would be appropriate to replace such claims with a single independent claim, e.g. by selecting a common wording for the essential features (see F-IV, 4.5).

3.3 Objection under Rule 43(2) or Rule 137(5)

Where an unjustified plurality of independent claims in the same category persists after the search (see B-VIII, 4.1 and B-VIII, 4.2) in the application under examination, an objection is raised under Rule 43(2). If no Rule 62a(1) invitation was sent at the search stage, the Examining Division can still raise an objection under Rule 43(2). If the application is a Euro-PCT application not subject to the preparation of a supplementary European search report (see B-II, 4.3.1), an objection under Rule 43(2) may also arise in examination.

Rule 43(2)

When an objection under Rule 43(2) arises, the applicant is invited to amend the claims appropriately. If the search was restricted in accordance with Rule 62a, and the Examining Division upholds the objection under Rule 43(2) despite possible counter-arguments provided by the applicant in his response to the invitation under Rule 62a(1) (see B-VIII, 4.2.2) or to the search opinion under Rule 70a (see B-X, 8), the claims must be amended in such a way as to result in the removal of all subject-matter excluded from the search (Rule 62a(2)) and the description amended accordingly (see H-II, 5).

If in reply to the reasoned objection (raised or confirmed in a communication from the Examining Division) the additional independent claims are maintained and no convincing arguments are presented that one of the situations referred to in sub-paragraphs (a) to (c) of Rule 43(2) applies, the application may be refused under Art. 97(2).

If the application is amended to provide a set of claims complying with Rule 43(2), but containing one or more claims directed to subject-matter excluded from the search in accordance with Rule 62a(1), an objection under Rule 137(5) arises and such amendments may not be admitted (see also H-II, 6 and H-II, 6.1). However, before such a decision can be taken, it will be necessary to allow the applicant to comment according to Art. 113(1) on the underlying issue of whether or not the claims in respect of which the invitation under Rule 62a(1) was sent did in fact comply with Rule 43(2).

The burden of proof concerning an objection under Rule 43(2) is initially shifted onto the applicant, i.e. it is up to the applicant to argue convincingly why additional independent claims can be maintained. For example, the mere statement that the number of claims is the minimum necessary to provide the overall scope of protection which

the applicant seeks is not a convincing argument (see T 56/01, Reasons 5).

Where the application also lacks unity of invention, the examiner may raise an objection under either Rule 43(2) or Art. 82 or under both. The applicant cannot contest which of these objections has priority (see T 1073/98, Reasons 7.2).

3.4 Independent and dependent claims

All applications will contain one or more "independent" claims directed to the essential features of the invention. Any such claim may be followed by one or more claims concerning "particular embodiments" of that invention. It is evident that any claim relating to a particular embodiment must effectively include also the essential features of the invention, and hence must include all the features of at least one independent claim. The term "particular embodiment" should be construed broadly as meaning any more specific disclosure of the invention than that set out in the independent claim or claims.

Rule 43(3) and (4)

Any claim which includes all the features of any other claim is termed a "dependent claim". Such a claim must contain, if possible at the beginning, a reference to the other claim, all features of which it includes (see, however, F-IV, 3.8 for claims in different categories). Since a dependent claim does not by itself define all the characterising features of the subject-matter which it claims, expressions such as "characterised in that" or "characterised by" are not necessary in such a claim but are nevertheless permissible. A claim defining further particulars of an invention may include all the features of another dependent claim and should then refer back to that claim. Also, in some cases, a dependent claim may define a particular feature or features which may appropriately be added to more than one previous claim (independent or dependent). It follows that there are several possibilities: a dependent claim may refer back to one or more independent claims, to one or more dependent claims, or to both independent and dependent claims.

Rule 43(4)

It sometimes occurs that an independent claim refers explicitly to alternative solutions and that these alternatives are also claimed separately in dependent claims. Such claims may seem redundant, but may be important for the applicant in some national procedures if he wishes to restrict his claims.

The examiner should object to such claims only if they detract from the clarity of the claims as a whole.

Art. 84

A dependent claim referring explicitly to independent claims in two categories as alternatives cannot be objected to on this ground alone. For example, if the invention relates to both a composition and a use of that composition, it is possible for a claim specifying further features of the composition to be made dependent on both the independent claim for the composition and the independent claim for its use.

Art. 84 Objections should, however, be raised to this type of claim dependency if it leads to a lack of clarity.

3.5 Arrangement of claims

Rule 43(4) All dependent claims referring back to a single previous claim and those referring back to several previous claims must be grouped together to the extent and in the most appropriate way possible. The arrangement must therefore be one which enables the association of related claims to be readily determined and their meaning in association to be readily construed. The examiner should object if the arrangement of claims is such as to create obscurity in the definition of the subject-matter to be protected. In general, however, when the corresponding independent claim is allowable, the examiner should not concern himself unduly with the subject-matter of dependent claims, provided he is satisfied that they are truly dependent and thus in no way extend the scope of protection of the invention defined in the corresponding independent claim (see also F-IV, 3.8).

3.6 Subject-matter of a dependent claim

If the two-part form is used for the independent claim(s), dependent claims may relate to further details of features not only of the characterising portion but also of the preamble.

3.7 Alternatives in a claim

Art. 84 A claim, whether independent or dependent, may refer to alternatives,
Art. 82 provided that the number and presentation of alternatives in a single claim does not make the claim obscure or difficult to construe and provided that the claim meets the requirements of unity (see also F-V, 4 and 9). In case of a claim defining (chemical or non-chemical) alternatives, i.e. a so-called "Markush-grouping", unity of invention should be considered to be present if the alternatives are of a similar nature and can fairly be substituted for one another (see F-V, 5).

3.8 Independent claims containing a reference to another claim or to features from a claim of another category

A claim may also contain a reference to another claim even if it is not a dependent claim as defined in Rule 43(4). One example of this is a claim referring to a claim of a different category (e.g. "Apparatus for carrying out the process of claim 1 ...", or "Process for the manufacture of the product of claim 1 ..."). Similarly, in a situation like the plug and socket example of F-IV, 3.2(i), a claim to the one part referring to the other co-operating part (e.g. "plug for co-operation with the socket of claim 1 ...") is not a dependent claim. In all these examples, the examiner should carefully consider the extent to which the claim containing the reference necessarily involves the features of the claim referred to and the extent to which it does not. Indeed, objections on the grounds of lack of clarity and failure to state the technical features (Rule 43(1)) apply to a claim which simply says "Apparatus for carrying out the process of Claim 1". Since the change of category already makes the claim independent, the applicant should be required to set out clearly in the claim the essential features of the apparatus.

The subject-matter of a claim in one category may also to some extent be defined in terms of features from another category; therefore an apparatus may be defined in terms of functions it is able to perform, provided the structure is made sufficiently clear; or a process may be defined in terms of essential structural features of the apparatus for carrying it out; or an element of an apparatus may be defined in terms of how it is made. However, in the wording of these claims and in the assessment of the claimed subject-matter, a clear distinction must be maintained between product claims (for a device, apparatus or system) and process claims (for a process, activity or use). For example, a claim for an apparatus cannot normally be limited only by the manner in which the apparatus is used; for this reason, a claim which simply reads "Apparatus Z, when used for carrying out process Y" should also be objected to on the grounds of lack of clarity and failure to state the technical features (Rule 43(1)).

In the case of a claim for a process which results in the product of a product claim, if the product claim is patentable then no separate examination for the novelty and non-obviousness of the process claim is necessary, provided that all features of the product as defined in the product claim inevitably (see also G-VII, 13) result from the claimed process (see F-IV, 4.5, and T 169/88). This also applies in the case of a claim for the use of a product, when the product is patentable and is used with its features as claimed (see T 642/94). In all other instances, the patentability of the claim referred to does not necessarily imply the patentability of the independent claim containing the reference. It should also be noted that if the process, product and/or use claims have different effective dates (see F-VI, 1 and 2), a separate examination may still be necessary in view of intermediate documents (see also G-VII, 13).

4. Clarity and interpretation of claims

4.1 Clarity

The requirement that the claims must be clear applies to individual claims and also to the claims as a whole. The clarity of the claims is of the utmost importance in view of their function in defining the matter for which protection is sought. Therefore, the meaning of the terms of a claim should, as far as possible, be clear for the person skilled in the art from the wording of the claim alone (see also F-IV, 4.2). In view of the differences in the scope of protection which may be attached to the various categories of claims, the examiner should ensure that the wording of a claim leaves no doubt as to its category. *Art. 84*

Where it is found that the claims lack clarity under Art. 84, this may have led to the issuing of a partial European or supplementary European search report under Rule 63 (see B-VIII, 3.1 and 3.2). In such cases, in the absence of appropriate amendment and/or convincing arguments from the applicant as to why the invitation under Rule 63(1) was not justified, an objection under Rule 63(3) will also arise (see H-II, 5).

4.2 Interpretation

Each claim should be read giving the words the meaning and scope which they normally have in the relevant art, unless in particular cases the description gives the words a special meaning, by explicit definition or otherwise. Moreover, if such a special meaning applies, the examiner should, so far as possible, require the claim to be amended whereby the meaning is clear from the wording of the claim alone. This is important because it is only the claims of the European patent, not the description, which will be published in all the official languages of the EPO. The claim should also be read with an attempt to make technical sense out of it. Such a reading may involve a departure from the strict literal meaning of the wording of the claims. Art. 69 and its Protocol do not provide a basis for excluding what is literally covered by the terms of the claims (see T 223/05).

4.3 Inconsistencies

Any inconsistency between the description and the claims should be avoided if it may throw doubt on the extent of protection and therefore render the claim unclear or unsupported under Art. 84, second sentence or, alternatively, render the claim objectionable under Art. 84, first sentence. Such inconsistency can be of the following kinds:

(i) Simple verbal inconsistency

For example, there is a statement in the description which suggests that the invention is limited to a particular feature but the claims are not thus limited; also, the description places no particular emphasis on this feature and there is no reason for believing that the feature is essential for the performance of the invention. In such a case, the inconsistency can be removed either by broadening the description or by limiting the claims. Similarly, if the claims are more limited than the description, the claims may be broadened or the description may be limited.

(ii) Inconsistency regarding apparently essential features

For example, it may appear, either from general technical knowledge or from what is stated or implied in the description, that a certain described technical feature not mentioned in an independent claim is essential to the performance of the invention, or, in other words, is necessary for the solution of the problem to which the invention relates. In such a case, the claim does not meet the requirements of Art. 84, because Art. 84, first sentence, when read in conjunction with Rule 43(1) and (3), has to be interpreted as meaning not only that an independent claim must be comprehensible from a technical point of view but also that it must clearly define the subject-matter of the invention, that is to say indicate all the essential features thereof (see T 32/82). If, in response to this objection, the applicant shows convincingly, e.g. by means of additional documents or other evidence, that the feature is in fact not essential, he may be

allowed to retain the unamended claim and, where necessary, to amend the description instead. The opposite situation in which an independent claim includes features which do not seem essential for the performance of the invention is not objectionable. This is a matter of the applicant's choice. The examiner should therefore not suggest that a claim be broadened by the omission of apparently inessential features;

(iii) Part of the subject-matter of the description and/or drawings is not covered by the claims

For example, the claims all specify an electric circuit employing semiconductor devices but one of the embodiments in the description and drawings employs electronic tubes instead. In such a case, the inconsistency can normally be removed either by broadening the claims (assuming that the description and drawings as a whole provide adequate support for such broadening) or by removing the "excess" subject-matter from the description and drawings. However, if examples in the description and/or drawings which are not covered by the claims are presented not as embodiments of the invention but as background art or examples which are useful for understanding the invention, the retention of these examples may be allowed.

The case under (iii) may frequently occur when, after a limitation of the claims following an invitation under Rule 62a(1) or Rule 63(1), the subject-matter excluded from the search is still present in the description. Unless the initial objection was not justified, such subject-matter should be objected to under Art. 84 (inconsistency between the claims and the description).

4.4 General statements, "spirit" of invention

General statements in the description which imply that the extent of protection may be expanded in some vague and not precisely defined way should be objected to. In particular, objection should be raised to any statement which refers to the extent of protection being expanded to cover the "spirit" of the invention. Objection should likewise be raised, in the case where the claims are directed to a combination of features, to any statement which seems to imply that protection is nevertheless sought not only for the combination as a whole but also for individual features or sub-combinations thereof.

4.5 Essential features

4.5.1 Objections arising from missing essential features

Art. 84
Rule 43(1) and (3)

The claims, which define the matter for which protection is sought, must be clear, meaning not only that a claim must be comprehensible from a technical point of view, but also that it must define clearly all the essential features of the invention (see T 32/82). Furthermore, the requirement of Art. 84 that the claims be supported by the description applies to features which are explicitly presented in the description as

being essential for carrying out the invention (see T 1055/92). A lack of essential features in the independent claim(s) is therefore to be dealt with under the clarity and support requirements.

4.5.2 Definition of essential features

Essential features of a claim are those necessary for achieving a technical effect underlying the solution of the technical problem with which the application is concerned (the problem usually being derived from the description). The independent claim(s) should therefore contain all features explicitly described in the description as being necessary to carry out the invention. Any features which, even if consistently mentioned in the context of the invention throughout the application, do not actually contribute to the solution of the problem are not essential features.

As a general rule, the technical effect or result produced by the feature will provide the key to answering the question of whether or not the feature contributes to solving the problem (see also G-VII, 5.2).

If a claim is to a process for producing the product of the invention, then the process as claimed should be one which, when carried out in a manner which would seem reasonable to a person skilled in the art, necessarily has as its end result that particular product; otherwise there is an internal inconsistency and therefore lack of clarity in the claim.

In particular, where patentability depends on a technical effect, the claims must be so drafted as to include all the technical features of the invention which are essential for the technical effect (see T 32/82).

4.5.3 Generalisation of essential features

In deciding how specific the essential features must be, the provisions of Art. 83 should be borne in mind: it is sufficient if the application as a whole describes the necessary characteristics of an invention in a degree of detail such that a person skilled in the art can perform the invention (see F-III, 3). It is not necessary to include all details of the invention in the independent claim. Thus a certain degree of generalisation of the claimed features may be permitted, provided that the claimed generalised features as a whole allow the problem to be solved. In this case a more specific definition of the features is not required. This principle applies equally to structural and functional features.

4.5.4 Implicit features

As detailed above, an independent claim should specify explicitly all of the essential features needed to define the invention. This applies except insofar as such features are implied by the generic terms used, e.g. a claim to a "bicycle" does not need to mention the presence of wheels.

In the case of a product claim, if the product is of a well-known kind and the invention lies in modifying it in certain respects, it is sufficient that the claim clearly identifies the product and specifies what is modified and in what way. Similar considerations apply to claims for an apparatus.

4.5.5 Examples

Examples illustrating essential features can be found in the Annex to F-IV.

4.6 Relative terms

It is preferable not to use a relative or similar term such as "thin", "wide" or "strong" in a claim unless the term has a well-recognised meaning in the particular art, e.g. "high-frequency" in relation to an amplifier, and this is the meaning intended. Where the term has no well-recognised meaning it should, if possible, be replaced by a more precise wording found elsewhere in the original disclosure. Where there is no basis in the disclosure for a clear definition and the term is not essential having regard to the invention, it should normally be retained in the claim, because to excise it would generally lead to an extension of the subject-matter beyond the content of the application as filed - in contravention of Art. 123(2). However, an unclear term cannot be allowed in a claim if the term is essential having regard to the invention. Equally, an unclear term cannot be used by the applicant to distinguish his invention from the prior art.

4.7 Terms like "about" and "approximately"

Particular attention is required whenever the word "about" or similar terms such as "approximately" or "substantially" are used. Such a word may be applied, for example, to a particular value (e.g. "about 200°C"), to a range (e.g. "about x to about y") or to a structural unit of an apparatus (e.g. "a tray plate with a substantially circular circumference"). In each case, the examiner should use his judgment as to whether the meaning is sufficiently clear in the context of the application read as a whole, and having regard to the meaning a particular technical term qualified by such a word usually has in the field concerned. If such words mean that a certain effect or result can be obtained within a certain tolerance and the skilled person knows how to obtain the tolerance, then the use of such words may be acceptable. If, however, the use of such a word suggests that deviations are included which are larger than those accepted tolerances, then the wording becomes vague and undefined. In any case, the word can only be permitted if its presence does not prevent the invention from being unambiguously distinguished from the prior art with respect to novelty and inventive step.

4.8 Trademarks

The use of trademarks and similar expressions in claims should not be allowed as it may not be guaranteed that the product or feature referred to is not modified while maintaining its name during the term of the patent. They may be allowed exceptionally if their use is unavoidable and

they are generally recognised as having a precise meaning (see also F-II, 4.14, with regard to the need to acknowledge trademarks as such in the description). With regard to the effect of references to trademarks on sufficiency of disclosure (Art. 83), see F-III, 7.

4.9 Optional features

Expressions like "preferably", "for example", "such as" or "more particularly" should be looked at carefully to ensure that they do not introduce ambiguity. Expressions of this kind have no limiting effect on the scope of a claim; that is to say, the feature following any such expression is to be regarded as entirely optional.

4.10 Result to be achieved

The area defined by the claims must be as precise as the invention allows. As a general rule, 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 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 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 (see T 68/85). For example, the invention may relate to an ashtray in which a smouldering cigarette end will be automatically extinguished due to the shape and relative dimensions of the ashtray. The latter may vary considerably in a manner difficult to define whilst still providing the desired effect. So long as the claim specifies the construction and shape of the ashtray as clearly as possible, it may define the relative dimensions by reference to the result to be achieved, provided that the specification includes adequate directions to enable the reader to determine the required dimensions by routine test procedures (see F-III, 1 to 3).

It should be noted that the above-mentioned requirements for allowing a definition of subject-matter in terms of a result to be achieved differ from those for allowing a definition of subject-matter in terms of functional features (see F-IV, 4.22 and 6.5).

Moreover, claims pertaining to a result to be achieved may likewise pose problems in the sense that essential features are missing (see F-IV, 4.5).

4.11 Parameters

Where the invention relates to a product, it may be defined in a claim in various ways, viz. as a chemical product by its chemical formula, as a product of a process (if no clearer definition is possible; see also F-IV, 4.12) or, exceptionally, by its parameters.

Parameters are characteristic values, which may be values of directly measurable properties (e.g. the melting point of a substance, the flexural strength of a steel, the resistance of an electrical conductor) or

may be defined as more or less complicated mathematical combinations of several variables in the form of formulae.

Characterisation of a product mainly by its parameters should only be allowed in those cases where the invention cannot be adequately defined in any other way, provided that those parameters can be clearly and reliably determined either by indications in the description or by objective procedures which are usual in the art (see T 94/82). The same applies to a process-related feature which is defined by parameters. Cases in which unusual parameters are employed or a non-accessible apparatus for measuring the parameter(s) is used are *prima facie* objectionable on grounds of lack of clarity, as no meaningful comparison with the prior art can be made. Such cases might also disguise lack of novelty (see G-VI, 6).

Use of unusual parameters may however be allowable if it is evident from the application that the skilled person would face no difficulty in carrying out the presented tests and would thereby be able to establish the exact meaning of the parameter and to make a meaningful comparison with the prior art (T 231/01). In addition, the onus of proof that an unusual parameter is a genuine distinctive feature vis-à-vis the prior art lies with the applicant. No benefit of doubt can be accorded in this respect (see G-VI, 6).

Whether the method of and the means for measurement of the parameters need also be in the claim is dealt with in F-IV, 4.18. For further issues relating to clarity, lack of support and sufficiency of disclosure regarding parameters, see F-III, 11, and F-IV, 6.4.

4.12 Product-by-process claim

Claims for products defined in terms of a process of manufacture are allowable only if the products as such fulfil the requirements for patentability, i.e. *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 T 150/82). A claim defining a product in terms of a process is to be construed as a claim to the product as such. The claim may for instance take the form "Product X obtainable by process Y". Irrespective of whether the term "obtainable", "obtained", "directly obtained" or an equivalent wording is used in the product-by-process claim, it is still directed to the product *per se* and confers absolute protection upon the product (see T 20/94).

As regards novelty, when a product is defined by its method of manufacture, the question to be answered is whether the product under consideration is identical to known products. The burden of proof for an allegedly distinguishing "product-by-process" feature lies with the applicant, who has to provide evidence that the modification of the process parameters results in another product, for example by showing that distinct differences exist in the properties of the products (see T 205/83). Nevertheless, the examiner needs to furnish reasoned argumentation to support the alleged lack of novelty of a

product-by-process claim, especially if this objection is contested by the applicant (see T 828/08).

Art. 64(2)

According to Art. 64(2), if the subject-matter of a European patent is a process, the protection conferred by the patent extends to the products directly obtained by such process. The provisions of this Article are understood to apply to processes producing products completely different from the starting materials as well as to the processes producing only superficial changes (e.g. painting, polishing). However, Art. 64(2) does not affect the examination of claims in respect of their patentability under the EPC and is not to be taken into account by an Examining Division (see T 103/00).

4.13 "Apparatus for ...", "Method for ...", etc.

If a claim commences with such words as: "Apparatus for carrying out the process etc..." this must be construed as meaning merely apparatus suitable for carrying out the process. Apparatus which otherwise possesses all of the features specified in the claims but which would be unsuitable for the stated purpose or would require modification to enable it to be so used, should normally not be considered as anticipating the claim.

Similar considerations apply to a claim for a product for a particular use. For example, if a claim refers to a "mold for molten steel", this implies certain limitations for the mold. Therefore, a plastic ice cube tray with a melting point much lower than that of steel would not come within the claim. Similarly, a claim to a substance or composition for a particular use should be construed as meaning a substance or composition which is in fact suitable for the stated use; a known product which *prima facie* is the same as the substance or composition defined in the claim, but which is in a form which would render it unsuitable for the stated use, would not deprive the claim of novelty. However, if the known product is in a form in which it is in fact suitable for the stated use, though it has never been described for that use, it would deprive the claim of novelty. An exception to this general principle of interpretation is where the claim is to a known substance or composition for use in a surgical, therapeutic or diagnostic method (see G-II, 4.2). Similarly, in the data-processing/computer program field, apparatus features of the means-plus-function type ("means for ...") are interpreted as means adapted to carry out the relevant steps/functions, rather than merely means suitable for carrying them out. In this way novelty is conferred over an unprogrammed or differently programmed data-processing apparatus.

In contrast to an apparatus or product claim, in case of a method claim commencing with such words as: "Method for remelting galvanic layers" the part "for remelting ..." should not be understood as meaning that the process is merely suitable for remelting galvanic layers, but rather as a functional feature concerning the remelting of galvanic layers and, hence, defining one of the method steps of the claimed method (see T 848/93).

A distinction does however have to be made where the claim is directed to a method or process aiming at a certain purpose, when it comprises physical steps which result in the production of a product (i.e. the claim is in fact directed towards the production of a product). In this case, the indication of the intended purpose of the method (production of a product) is to be understood in the sense that the method or process has to be merely suitable for that use, rather than comprising the use as an integral method step. Consequently, a prior disclosure of the same method without an indication of the particular purpose (product production), although the method is nevertheless suitable for it, would anticipate a claim to the method for that particular purpose (see T 304/08).

4.14 Definition by reference to use or another entity

Where a claim in respect of a physical entity (product, apparatus) seeks to define the invention by reference to features relating to the entity's use, a lack of clarity can result. This is particularly the case where the claim not only defines the entity itself but also specifies its relationship to a second entity which is not part of the claimed entity (for example, a cylinder head for an engine, where the former is defined by features of its location in the latter). Before considering a restriction to the combination of the two entities, it should always be remembered that the applicant is normally entitled to independent protection of the first entity *per se*, even if it was initially defined by its relationship to the second entity. Since the first entity can often be produced and marketed independently of the second entity, it will usually be possible to obtain independent protection by wording the claims appropriately (for example, by substituting "connectable" for "connected"). If it is not possible to give a clear definition of the first entity *per se*, then the claim should be directed to a combination of the first and second entities (for example, "engine with a cylinder head" or "engine comprising a cylinder head").

It may also be allowable to define the dimensions and/or shape of a first entity in an independent claim by general reference to the dimensions and/or corresponding shape of a second entity which is not part of the claimed first entity but is related to it through use. This particularly applies where the size of the second entity is in some way standardised (for example, in the case of a mounting bracket for a vehicle number-plate, where the bracket frame and fixing elements are defined in relation to the outer shape of the number-plate). However, references to second entities which cannot be seen as subject to standardisation may also be sufficiently clear in cases where the skilled person would have little difficulty in inferring the resultant restriction of the scope of protection for the first entity (for example, in the case of a covering sheet for an agricultural round bale, where the length and breadth of the covering sheet and how it is folded are defined by reference to the bale's circumference, width and diameter, see T 455/92). It is neither necessary for such claims to contain the exact dimensions of the second entity, nor do they have to refer to a combination of the first and second entities. Specifying the length, width and/or height of the first entity

without reference to the second would lead to an unwarranted restriction of the scope of protection.

4.15 The expression "in"

To avoid ambiguity, particular care should be exercised when assessing claims which employ the word "in" to define a relationship between different physical entities (product, apparatus), or between entities and activities (process, use), or between different activities. Examples of claims worded in this way include the following:

(i) Cylinder head in a four-stroke engine;

(ii) In a telephone apparatus with an automatic dialler, dial tone detector and feature controller, the dial tone detector comprising ...;

(iii) In a process using an electrode feeding means of an arc-welding apparatus, a method for controlling the arc welding current and voltage comprising the following steps: ...; and

(iv) In a process/system/apparatus etc. ... the improvement consisting of...

In examples (i) to (iii) the emphasis is on the fully functioning sub-units (cylinder head, dial tone detector, method for controlling the arc welding current and voltage) rather than the complete unit within which the sub-unit is contained (four-stroke engine, telephone, process). This can make it unclear whether the protection sought is limited to the sub-unit *per se*, or whether the unit as a whole is to be protected. For the sake of clarity, claims of this kind should be directed either to "a unit with (or comprising) a sub-unit" (e.g. "four-stroke engine with a cylinder head"), or to the sub-unit *per se*, specifying its purpose (for example, "cylinder head for a four-stroke engine"). The latter course may be followed only at the applicant's express wish and only if there is a basis for it in the application as filed, in accordance with Art. 123(2).

With claims of the type indicated by example (iv), the use of the word "in" sometimes makes it unclear whether protection is sought for the improvement only or for all the features defined in the claim. Here, too, it is essential to ensure that the wording is clear.

However, claims such as "use of a substance ... as an anticorrosive ingredient in a paint or lacquer composition" are acceptable on the basis of second non-medical use (see G-VI, 7.2, second paragraph).

4.16 Use claims

For the purposes of examination, a "use" claim in a form such as "the use of substance X as an insecticide" should be regarded as equivalent to a "process" claim of the form "a process of killing insects using substance X". Thus a claim in the form indicated should not be interpreted as directed to the substance X recognisable (e.g. by further

additives) as intended for use as an insecticide. Similarly, a claim for "the use of a transistor in an amplifying circuit" would be equivalent to a process claim for the process of amplifying using a circuit containing the transistor and should not be interpreted as being directed to "an amplifying circuit in which the transistor is used", nor to "the process of using the transistor in building such a circuit". However, a claim directed to the use of a process for a particular purpose is equivalent to a claim directed to that very same process (see T 684/02).

Care should be taken when a claim relates to a two-step process which combines a use step with a product production step. This may be the case e.g. when a polypeptide and its use in a screening method have been defined as the only contribution to the art. An example of such a claim would then be:

"A method comprising:

(a) contacting polypeptide X with a compound to be screened and

(b) determining whether the compound affects the activity of said polypeptide;

and then formulating any active compound into a pharmaceutical composition."

Many variations of such a claim are conceivable, but in essence they combine (a) a screening step (i.e. using a specified test material to select a compound having a given property) with (b) further production steps (i.e. further transforming the selected compound for instance into the desired composition).

This type of claim is an attempt to gain protection for the composition under Art. 64(2). According to decision G 2/88 there are two different types of process claim, (i) the use of an entity to achieve a technical effect and (ii) a process for the production of a product. This decision makes clear that Art. 64(2) applies only to processes of type (ii). The above claim and its analogues thus represent a combination of two different and irreconcilable types of process claim. Step (a) of the claim relates to a process of type (i), step (b) to a process of type (ii). Step (b) builds on the "effect" achieved by step (a), rather than step (a) feeding into step (b) a specific starting material and resulting in a specific product. This results in an unclear claim according to Art. 84.

4.17 References to the description or drawings

Rule 43(6)

The claims must not, in respect of the technical features of the invention, rely on references to the description or drawings "except where absolutely necessary". In particular they must not normally rely on such references as "as described in part ... of the description", or "as illustrated in Figure 2 of the drawings". The emphatic wording of the excepting clause should be noted. The onus is upon the applicant to show that it is "absolutely necessary" to rely on reference to the

description or drawings in appropriate cases (see T 150/82). An example of an allowable exception would be that in which the invention involves some peculiar shape, illustrated in the drawings, but which cannot be readily defined either in words or by a simple mathematical formula. Another special case is that in which the invention relates to chemical products some of whose features can be defined only by means of graphs or diagrams.

4.18 Method of and means for measuring parameters referred to in claims

A further special case is where the invention is characterised by parameters. Provided that the conditions for defining the invention in this way are met (see F-IV, 4.11), the definition of the invention should appear completely in the claim itself whenever this is reasonably practicable. In principle the method of measurement is necessary for the unambiguous definition of the parameter. The method of and means for measurement of the parameter values need not however be in the claims when:

(i) the description of the method is so long that its inclusion would make the claim unclear through lack of conciseness or difficult to understand; in that case the claim should include a reference to the description, in accordance with Rule 43(6);

(ii) a person skilled in the art would know which method to employ, e.g. because there is only one method, or because a particular method is commonly used; or

(iii) all known methods yield the same result (within the limits of measurement accuracy).

However, in all other cases the method of and means for measurement should be included in the claims as the claims define the matter for which protection is sought (Art. 84).

4.19 Reference signs

Rule 43(7)

If the application contains drawings, and the comprehension of the claims would be improved by establishing the connection between the features mentioned in the claims and the corresponding reference signs in the drawings, then appropriate reference signs should be placed in parentheses after the features mentioned in the claims. If there is a large number of different embodiments, only the reference signs of the most important embodiments need be incorporated in the independent claim(s). Where claims are drafted in the two-part form set out in Rule 43(1), the reference signs should be inserted not only in the characterising part but also in the preamble of the claims. Reference signs should not however be seen as limiting the extent of the matter protected by the claims; their sole function is to make claims easier to understand. A comment to that effect in the description is acceptable (see T 237/84).

If text is added to reference signs in parentheses in the claims, lack of clarity can arise (Art. 84). Expressions such as "securing means (screw 13, nail 14)" or "valve assembly (valve seat 23, valve element 27, valve seat 28)" are not reference signs in the sense of Rule 43(7) but are special features, to which the last sentence of Rule 43(7) is not applicable. Consequently, it is unclear whether the features added to the reference signs are limiting or not. Accordingly, such bracketed features are generally not permissible. However, additional references to those figures where particular reference signs are to be found, such as "(13 - Figure 3; 14 - Figure 4)", are unobjectionable.

A lack of clarity can also arise with bracketed expressions that do not include reference signs, e.g. "(concrete) moulded brick". In contrast, bracketed expressions with a generally accepted meaning are allowable, e.g.-"(meth)acrylate" which is known as an abbreviation for "acrylate and methacrylate". The use of brackets in chemical or mathematical formulae is also unobjectionable.

4.20 Negative limitations (e.g. disclaimers)

A claim's subject-matter is normally defined in terms of positive features indicating that certain technical elements are present. Exceptionally, however, the subject-matter may be restricted using a negative limitation expressly stating that particular features are absent. This may be done e.g. if the absence of a feature can be deduced from the application as filed (see T 278/88).

Negative limitations such as disclaimers may be used only if adding positive features to the claim either would not define more clearly and concisely the subject-matter still protectable (see G 1/03 and T 4/80) or would unduly limit the scope of the claim (see T 1050/93). It has to be clear what is excluded by means of the disclaimer (see T 286/06). A claim containing one or more disclaimers must also fully comply with the clarity and conciseness requirements of Art. 84 (see G 1/03, Reasons 3). Moreover, in the interests of the patent's transparency, the excluded prior art should be indicated in the description in accordance with Rule 42(1)(b), and the relation between the prior art and the disclaimer should be shown.

For the allowability of disclaimers excluding embodiments that were disclosed in the original application as being part of the invention, see H-V, 4.2. With respect to the allowability of a disclaimer not disclosed in the application as filed, see H-V, 4.1.

4.21 "Comprising" vs. "consisting"

While in everyday language the word "comprise" may have both the meaning "include", "contain" or "comprehend" and "consist of", in drafting patent claims legal certainty normally requires it to be interpreted by the broader meaning "include", "contain" or "comprehend". On the other hand, if a claim for a chemical compound refers to it as "consisting of components A, B and C" by their

proportions expressed in percentages, the presence of any additional component is excluded and therefore the percentages should add up to 100% (see T 759/91 and T 711/90).

4.22 Functional definition of a pathological condition

When a claim is directed to a further therapeutic application of a medicament and the condition to be treated is defined in functional terms, e.g. "any condition susceptible of being improved or prevented by selective occupation of a specific receptor", the claim can be regarded as clear only if instructions, in the form of experimental tests or testable criteria, are available from the patent documents or from the common general knowledge allowing the skilled person to recognise which conditions fall within the functional definition and accordingly within the scope of the claim (see T 241/95; see also G-II, 4.2).

4.23 Broad claims

The Convention does not explicitly mention overly broad claims. However, objections to such claims may arise for various reasons.

Where there are discrepancies between the claims and the description, the claims are not sufficiently supported by the description (Art. 84) and also, in most cases, the invention is not sufficiently disclosed (Art. 83, see T 409/91, and F-IV, 6.1).

Art. 54 and Art. 56

Sometimes an objection of lack of novelty arises, for example if the claim is formulated in such broad terms that it also covers known subject-matter from other technical fields. Broad claims may also cover embodiments for which a purported effect has not been achieved. On raising an objection of lack of inventive step in such cases, see G-VII, 5.2.

For broad claims in opposition proceedings, see also D-V, 4 and 5.

4.24 Order of claims

There is no legal requirement that the first claim should be the broadest. However, Art. 84 requires that the claims must be clear not only individually but also as a whole. Therefore, where there are a large number of claims, they should be arranged with the broadest claim first. If the broadest of a large number of claims is a long way down, so that it could easily be overlooked, the applicant should be required either to re-arrange the claims in a more logical way or to direct attention to the broadest claim in the introductory part or in the summary of the description.

Furthermore, if the broadest claim is not the first one, the later broader claim must also be an independent claim. Consequently, where these independent claims are of the same category, an objection may also arise under Rule 43(2) (see F-IV, 3.2 and 3.3).

5. Conciseness, number of claims

Art. 84
Rule 43(5)

The requirement that the claims must be concise refers to the claims in their entirety as well as to the individual claims. The number of claims must be considered in relation to the nature of the invention the applicant seeks to protect. Undue repetition of wording, e.g. between one claim and another, should be avoided by the use of the dependent form. Regarding independent claims in the same category, see F-IV, 3.2 and 3.3. As for dependent claims, while there is no objection to a reasonable number of such claims directed to particular preferred features of the invention, the examiner should object to a multiplicity of claims of a trivial nature. What is or what is not a reasonable number of claims depends on the facts and circumstances of each particular case (see for example T 596/97, Reasons 8). The interests of the relevant public must also be borne in mind. The presentation of the claims should not make it unduly burdensome to determine the matter for which protection is sought (T 79/91 and T 246/91). Objection may also arise where there is a multiplicity of alternatives within a single claim, if this renders it unduly burdensome to determine the matter for which protection is sought.

Where it is found that the claims lack conciseness under Art. 84, this may lead to the issuing of a partial European or supplementary European search report under Rule 63 (see B-VIII, 3.1 and 3.2). In such cases, in the absence of appropriate amendment and/or convincing arguments from the applicant as to why the invitation under Rule 63(1) was not justified, an objection under Rule 63(3) will also arise (see H-II, 5).

6. Support in description

6.1 General remarks

Art. 84

The claims must be supported by the description. This means that there must be a basis in the description for the subject-matter of every claim and that the scope of the claims must not be broader than is justified by the extent of the description and drawings and also the contribution to the art (see T 409/91). Regarding the support of dependent claims by the description, see F-IV, 6.6.

6.2 Extent of generalisation

Most claims are generalisations from one or more particular examples. The extent of generalisation permissible is a matter which the examiner must judge in each particular case in the light of the relevant prior art. Thus 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. In particular, if it is reasonable to predict that all the variants covered by the claims have the properties or uses the applicant ascribes to them in the

description, he should be allowed to draw his claims accordingly. After the date of filing, however, he should be allowed to do so only if this does not contravene Art. 123(2).

6.3 Objection of lack of support

As a general rule, a claim should be regarded as supported by the description unless there are well-founded reasons for believing that the skilled person would be unable, on the basis of the information given in the application as filed, to extend the particular teaching of the description to the whole of the field claimed by using routine methods of experimentation or analysis. Support must, however, be of a technical character; vague statements or assertions having no technical content provide no basis.

The examiner should raise an objection of lack of support only if he has well-founded reasons. Once the examiner has set out a reasoned case that, for example, a broad claim is not supported over the whole of its breadth, the onus of demonstrating that the claim is fully supported lies with the applicant (see F-IV, 4). Where an objection is raised, the reasons should, where possible, be supported specifically by a published document.

A claim in generic form, i.e. relating to a whole class, e.g. of materials or machines, may be acceptable even if of broad scope, if there is fair support in the description and there is no reason to suppose that the invention cannot be worked through the whole of the field claimed. Where the information given appears insufficient to enable a person skilled in the art to extend the teaching of the description to parts of the field claimed but not explicitly described by using routine methods of experimentation or analysis, the examiner should raise a reasoned objection, and invite the applicant to establish, by suitable response, that the invention can in fact be readily applied on the basis of the information given over the whole field claimed or, failing this, to restrict the claim accordingly.

The question of support is illustrated by the following examples:

(i) a claim relates to a process for treating all kinds of "plant seedlings" by subjecting them to a controlled cold shock so as to produce specified results, whereas the description discloses the process applied to one kind of plant only. Since it is well-known that plants vary widely in their properties, there are well-founded reasons for believing that the process is not applicable to all plant seedlings. Unless the applicant can provide convincing evidence that the process is nevertheless generally applicable, he must restrict his claim to the particular kind of plant referred to in the description. A mere assertion that the process is applicable to all plant seedlings is not sufficient;

(ii) a claim relates to a specified method of treating "synthetic resin mouldings" to obtain certain changes in physical characteristics.

All the examples described relate to thermoplastic resins and the method is such as to appear inappropriate to thermosetting resins. Unless the applicant can provide evidence that the method is nevertheless applicable to thermosetting resins, he must restrict his claim to thermoplastic resins;

(iii) a claim relates to improved fuel oil compositions which have a given desired property. The description provides support for one way of obtaining fuel oils having this property, which is by the presence of defined amounts of a certain additive. No other ways of obtaining fuel oils having the desired property are disclosed. The claim makes no mention of the additive. The claim is not supported over the whole of its breadth and objection arises.

Where it is found that the claims lack support in the description under Art. 84, this may lead to the issuing of a partial European or supplementary European search report under Rule 63 (see B-VIII, 3.1 and 3.2). In such cases, in the absence of appropriate amendment and/or convincing arguments provided by the applicant in his response to the invitation under Rule 63(1) (see B-VIII, 3.2) or to the search opinion under Rule 70a (see B-XI, 8), an objection under Rule 63(3) will also arise (see H-II, 5).

6.4 Lack of support vs. insufficient disclosure

Art. 83
Art. 84

It should be noted that, although an objection of lack of support is an objection under Art. 84, it can often, as in the above examples, also be considered as an objection of insufficient disclosure of the invention under Art. 83 (see F-III, 1 to 3), the objection being that the disclosure is insufficient to enable the skilled person to carry out the "invention" over the whole of the broad field claimed (although sufficient in respect of a narrow "invention"). Both requirements are designed to reflect the principle that the terms of a claim should be commensurate with, or be justified by, the invention's technical contribution to the art. Therefore, the extent to which an invention is sufficiently disclosed is also highly relevant to the issue of support. The reasons for failure to meet the requirements of Art. 83 may in effect be the same as those that lead to the infringement of Art. 84 as well, namely that the invention, over the whole range claimed, extends to technical subject-matter not made available to the person skilled in the art by the application as filed (see T 409/91, Reasons 2 and 3.3 to 3.5).

For example, where a technical feature is described and highlighted in the description as being an essential feature of the invention, to comply with Art. 84 this must also be part of the independent claim(s) defining the invention (see F-IV, 4.5.1). By the same token, if the (essential) technical feature in question is absent from the claims, and no information is given on how to perform the claimed invention successfully without the use of said feature, the description does not disclose the invention defined in the claim(s) in the manner prescribed by Art. 83.

An objection under both Art. 84 and Art. 83 may also be justified. An example would be a claim relating to a known class of chemical compounds defined by measurable parameters, when the description does not disclose a technical teaching allowing the skilled person to manufacture those compounds complying with the parametric definition, and this is not otherwise feasible by the application of common general knowledge or routine experimentation. Such a claim would be both technically not supported and not sufficiently disclosed, regardless of whether the parametric definition meets the clarity requirement of Art. 84.

Whether the objection is raised as lack of support or as insufficiency is unimportant in examination proceedings; but it is important in opposition proceedings since there only the latter ground is available (see D-III, 5).

6.5 Definition in terms of function

A claim may broadly define a feature in terms of its function, i.e. as a functional feature, 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 (see also F-IV, 2.1 and 4.10). For example, "terminal position detecting means" in a claim might be supported by a single example comprising a limit switch, it being evident to the skilled person that e.g. a photoelectric cell or a strain gauge could be used instead. In general, however, if the entire contents of the application are such as to convey the impression that a function is to be carried out in a particular way, with no intimation that alternative means are envisaged, and a claim is formulated in such a way as to embrace other means, or all means, of performing the function, then objection arises. Furthermore, it may not be sufficient if the description merely states in vague terms that other means may be adopted, if it is not reasonably clear what they might be or how they might be used.

6.6 Support for dependent claims

Where certain subject-matter is clearly disclosed in a claim of the application as filed, but is not mentioned anywhere in the description, it is permissible to amend the description so that it includes this subject-matter. Where the claim is dependent, it may suffice if it is mentioned in the description that the claim sets out a particular embodiment of the invention (see F-II, 4.5).

Annex
Examples concerning essential features

Example 1

Claim 1 relates to a method for storing gel-coated seeds having a gel coat comprising an aqueous gel having been made water-insoluble by a metal ion. The method is characterised by storing the gel-coated seeds in an aqueous solution containing said metal ion. In the description the object of the invention is defined as providing a method for storing gel-coated seeds easily without causing reduction in yield and handling properties. It was emphasised in the description that it is necessary to confine the metal ion concentration to a specific range in order to achieve the goals of the invention. A metal ion concentration outside the specific range was presented as negatively influencing yield and handling properties. The subject-matter of claim 1 - which does not indicate the specific range - therefore does not solve the problem stated in the description.

Example 2

The invention relates to an apparatus for concave shaping of a metal strip. In the closest prior art, the metal strip is passed transversely to its length through a shaping set of rollers at which the concave shape is applied to the strip. According to the description, the problem is that the rollers are unable to subject the lateral ends of the strip to a curve-creating force and so the lateral ends normally end up planar. The distinguishing feature of the independent claim specifies that a flexible belt or web-like member is provided to support the strip in its passage through the shaping set of rollers. This feature is sufficient to solve the problem. Further features, e.g. the details of the mechanism for advancing the strip into the shaping set of rollers or the provision of at least three rollers, are not necessary to solve the problem: such additional features would unduly restrict the claim (see T 1069/01).

Example 3

Claim 1 is directed to a shut-off device for preventing the spread of fire in ducts in ventilation systems. According to the description, the problem to be solved is to provide a duct shut-off device which in a non-activated state will offer the lowest possible flow resistance in the ducting. The description consistently discloses that this problem is solved by providing plates extending in the flow direction which are coated with a particular fire-protection paint that expands far more than the material normally used in the art. The inter-plate spacing may thus be increased, which leads to a reduction of flow resistance. However, the adhesion properties of the paint requires that the plates must have a particular length. Since the description consistently indicates that the solution to the problem consists not only in the length dimension of the plates but also in the provision of high-expansion paint, the independent claim has to include this latter feature. It is not sufficient to

define only the dimensions of the plates since this implies neither the use of a specific fire protection material nor an increased spacing of the plates (see T 575/02).

Example 4

Claim 1 is directed to an apparatus for coding television signals comprising, amongst other features, a parameter generating means which ensures that the error between the pixel data of the predicted and actual current fields is minimised. The description describes only one example for minimising the error, namely a method of least squares. What is important is that the skilled person would be able to realise how the error minimising function can be implemented: it is not relevant in this context whether the method of least squares is the only method applicable. It is therefore not necessary to further restrict the claimed parameter generating means in the sense that it uses a method of least squares (see T 41/91).

Example 5

According to the description, the object of the invention is to provide a monitor for acquiring and processing EEG data which provides improved signal quality and is impervious to electrical noise pollution. The description indicates that this object is achieved by providing separate data acquisition and data processing modules and by using specific elements - notably a sigma-delta modulator and a decimation filter - in these modules. Since both the modulator and the decimator are of importance in achieving an improved noise ratio performance, both of these components have to be defined in the independent claim. Moreover, since the provision of separate, detachable modules is consistently presented as being of only secondary importance for noise reduction, it is not sufficient that only this feature appears in the independent claim (see T 1126/01).

Example 6

The description states that a compound C is obtained by reacting a mixture of A and B for at least 10 minutes at 100°C. It is emphasised that A and B must be reacted for this minimum amount of time, as otherwise the reaction will be incomplete and C will not be formed. Claim 1 is directed to a process for the production of compound C, characterised by reacting a mixture of A and B for 5 to 15 minutes at 100°C. The claim does not contain all the essential features of the invention, as the description clearly states that for the reaction to be complete, it is necessary to react A and B for at least 10 minutes.

Example 7

The description identifies the problem to be solved as providing aerosol compositions wherein the percentage of undesirable volatile organic compounds (VOCs) required as propellant is dramatically decreased, resulting in less VOC release to the atmosphere. Claim 1

specifies the minimum amount of at least 15 weight% of propellant (which is a VOC) in the aerosol, but is completely silent about any maximum amount thereof. The problem underlying the application of releasing less VOCs into the environment is solved only when the propellant does not exceed a particular maximum amount in the aerosol composition: this maximum value is therefore an essential feature of the invention. Claim 1 covers aerosols comprising any amount of propellant greater than or equal to 15 weight%, thereby covering the deficient high percentage of propellant present in conventional aerosols. The percentage of undesirable VOCs in the claimed aerosol compositions is therefore not "dramatically decreased", and so the stated aim of the present invention is not achieved (see T 586/97).

Example 8

The problem to be solved as indicated in the application consists in improving the yield and purity of the 2-alkylthiazole-5-carboxylic acid chlorides obtained in the preparation process of the invention. Comparative examples show that once the reaction temperature is not within the range from 20°C to reflux, the 2-alkylthiazole-5-carboxylic acid chlorides are not obtained with an improved yield and purity; hence, the desired technical effect is then not achieved and the problem underlying the application is not solved. The problem underlying the application is solved only when the reaction temperature is from 20°C to reflux, with the consequence that this feature is essential to the performance of the invention and must be included in the independent claim (see T 488/96).

Example 9

As regards diagnostic methods, the Enlarged Board of Appeal has indicated (see G 1/04 that if the deductive medical or veterinary decision phase is unambiguously derivable from the application or patent as a whole, it is to be included as an essential feature in the independent claim. In other words, if the inevitable outcome of the first three phases of such a method (see G-II, 4.2.1.3) is a specific diagnosis for curative purposes allowing the deviation to be attributed to a particular clinical picture, the decision phase must be included in the independent claim in order to fulfil the requirements of Art. 84. However, this may cause a claim to be excluded from patentability under Art. 53(c) (see also G-II, 4.2.1.3). The requirement that the final decision phase be included in the independent claim as an essential feature is to be applied only if it is clear from the application/patent as a whole that the inevitable result of the findings leads unambiguously to a particular diagnosis: this will have to be decided by the examiner on a case-by-case basis.

Chapter V – Unity of invention

1. General remarks

A European application must "relate to one invention only or to a group of inventions so linked as to form a single general inventive concept" (see also B-VII, 1). The second of these alternatives, i.e. the single-concept linked group, may give rise to a plurality of independent claims in the same category provided these claims comply with Rule 43(2) (see F-IV, 3.2 and 3.3), but the more usual case is a plurality of independent claims in different categories.

Art. 82
Rule 43(2)

When determining unity of invention, a finding of lack of clarity of the claims is on its own not sufficient grounds for a finding of lack of unity.

Art. 84

Normally, too, the sequence of the claims should not have an impact on the determination of unity of invention. However, it will have an impact on which invention is to be considered the first invention mentioned in the claims (see F-V, 8.2).

Moreover, the fact that the claimed separate inventions belong to different groups of the classification is not in itself a reason for a finding of lack of unity.

An application may contain claims of different categories, or several independent claims of the same category. This is not in itself a reason for an objection of lack of unity of invention if the requirements of Art. 82 and Rule 44 are otherwise met (the relationship between Rule 43(2) and Art. 82 is explained in more detail in F-V, 14).

Rule 43(2)

With regard to substantive criteria, unity of invention is examined in search and substantive examination in both European and PCT procedures according to the same principles. This does not apply to the respective procedures themselves, where significant differences exist.

Art. 150(2)

2. Special technical features

Rule 44(1) indicates how one determines whether or not the requirement of Art. 82 is fulfilled when more than one invention appears to be present. The link between the inventions required by Art. 82 must be a technical relationship which finds expression in the claims in terms of the same or corresponding special technical features. The expression "special technical features" means, in any one claim, the particular technical feature or features that define a contribution that the claimed invention considered as a whole makes over the prior art. Once the special technical features of each invention have been identified, one must determine whether or not there is a technical relationship between the inventions and, furthermore, whether or not this relationship involves these special technical features. It is not necessary that the special technical features in each invention be the same. Rule 44(1) makes clear that the required

Rule 44(1)

relationship may be found between corresponding technical features. An example of this correspondence is the following: in one claim the special technical feature which provides resilience is a metal spring, whereas in another claim it is a block of rubber.

A plurality of independent claims in different categories may constitute a group of inventions so linked as to form a single general inventive concept. In particular, Rule 44(1) should be construed as permitting the inclusion of any one of the following combinations of claims of different categories in the same application:

(i) in addition to an independent claim for a given product, an independent claim for a process specially adapted for the manufacture of the said product, and an independent claim for a use of the said product; or

(ii) in addition to an independent claim for a given process, an independent claim for an apparatus or means specifically designed for carrying out the said process; or

(iii) in addition to an independent claim for a given product, an independent claim for a process specially adapted for the manufacture of the said product and an independent claim for an apparatus or means specifically designed for carrying out the said process.

However, while a single set of independent claims according to any one of the combinations (i), (ii) or (iii) above is always permissible, a plurality of such sets of independent claims in one European patent application can only be allowed if the specific circumstances defined in Rule 43(2)(a) to (c) apply and the requirements of Art. 82 and 84 are met. The proliferation of independent claims arising out of a combined effect of this kind may therefore be allowed only exceptionally.

Moreover, it is essential that a single general inventive concept links the claims in the various categories. The presence in each claim of expressions such as "specially adapted" or "specifically designed" does not necessarily imply that a single general inventive concept is present.

In combination (i) above, the process is specially adapted for the manufacture of the product if the claimed process results in the claimed product, i.e. if the process is actually suited to making the claimed product accessible and thereby defines a technical relationship as defined in Rule 44(1) between the claimed product and the claimed process (see W 11/99). A manufacturing process and its product may not be regarded as lacking unity simply by virtue of the fact that the manufacturing process is not restricted to the manufacture of the claimed product.

In combination (ii) above, the apparatus or means is specifically designed for carrying out the process if the apparatus or means is suitable for carrying out the process and thereby defines a technical relationship as defined in Rule 44(1) between the claimed apparatus or means and the claimed process. It is not sufficient for unity that the apparatus or means is merely capable of being used in carrying out the process. On the other hand, it is of no importance whether or not the apparatus or means could also be used for carrying out another process or the process could also be carried out using an alternative apparatus or means.

3. Intermediate and final products

In the present context of intermediate and final products, the term "intermediate" is intended to mean intermediate or starting products. Such products are made available with a view to obtaining end products through a physical or chemical change in which the intermediate product loses its identity.

Unity of invention should be considered to be present in the context of intermediate and final products where:

(i) the intermediate and final products have the same essential structural element, i.e. their basic chemical structures are the same or their chemical structures are technically closely inter-related, the intermediate incorporating an **essential** structural element into the final product, and

(ii) the intermediate and final products are technically inter-related, i.e. the final product is manufactured directly from the intermediate or is separated from it by a small number of intermediates all containing the same **essential** structural element.

Unity of invention may also be present between intermediate and final products of which the structures are not known – for example, as between an intermediate having a known structure and a final product with unknown structure or as between an intermediate of unknown structure and a final product of unknown structure. In such cases, there should be sufficient evidence to lead one to conclude that the intermediate and final products are technically closely inter-related as, for example, when the intermediate contains the same essential element as the final product or incorporates an essential element into the final product.

Different intermediate products used in different processes for the preparation of the final product may be claimed provided that they have the same essential structural element. The intermediate and final products should not be separated, in the process leading from one to the other, by an intermediate which is not new. Where different intermediates for different structural parts of the final product are claimed, unity should not be regarded as being present between the

intermediates. If the intermediate and final products are families of compounds, each intermediate compound should correspond to a compound claimed in the family of the final products. However, some of the final products may have no corresponding compound in the family of the intermediate products, so the two families need not be absolutely congruent.

The mere fact that, besides the ability to be used to produce final products, the intermediates also exhibit other possible effects or activities should not prejudice unity of invention.

4. Alternatives

Rule 44(2)

Alternative forms of an invention may be claimed either in a plurality of independent claims, as indicated in F-V, 1, or in a single claim (but see F-IV, 3.7). In the latter case the presence of the two alternatives as independent forms may not be immediately apparent. In either case, however, the same criteria should be applied in deciding whether or not there is unity of invention, and lack of unity of invention may then also exist within a single claim.

5. Markush grouping

Where a single claim defines (chemical or non-chemical) alternatives, i.e. a so-called "Markush grouping", unity of invention should be considered to be present if the alternatives are of a similar nature (see F-IV, 3.7).

When the Markush grouping is for alternatives of chemical compounds, they should be regarded as being of a similar nature where:

(i) all alternatives have a common property or activity, and

(ii) a common structure is present, i.e. a significant structural element is shared by all of the alternatives, or all alternatives belong to a recognised class of chemical compounds in the art to which the invention pertains.

A "significant structural element is shared by all of the alternatives" where the compounds share a common chemical structure which occupies a large portion of their structures, or, in case the compounds have in common only a small portion of their structures, the commonly shared structure constitutes a structurally distinctive portion in view of existing prior art. The structural element may be a single component or a combination of individual components linked together. The alternatives belong to a "recognised class of chemical compounds" if there is an expectation from the knowledge in the art that members of the class will behave in the same way in the context of the claimed invention, i.e. that each member could be substituted one for the other, with the expectation that the same intended result would be achieved.

There is no need for the significant structural element to be novel in absolute terms (i.e. novel *per se*). Rather, this expression means that in relation to the common property or activity there must be a common part of the chemical structure which distinguishes the claimed compounds from any known compounds having the same property or activity. However, if it can be shown that at least one Markush alternative is not novel, unity of invention should be reconsidered. In particular, if the structure of at least one of the compounds covered by a Markush claim is known together with the property or technical effect under consideration, this is an indication of lack of unity of the remaining compounds (alternatives).

6. Individual features in a claim

Objection of lack of unity does not arise because of one claim containing a number of individual features, where these features do not present a technical inter-relationship (i.e. a combination), but merely a juxtaposition (see G-VII, 7).

7. Lack of unity "*a priori*" or "*a posteriori*"

Lack of unity may be directly evident *a priori*, i.e. before considering the claims in relation to the prior art, or may only become apparent *a posteriori*, i.e. after taking the prior art into consideration - e.g. a document within the state of the art as defined in Art. 54(2) shows that there is lack of novelty or inventive step in an independent claim, thus leaving two or more dependent claims without a common inventive concept (see F-V, 9). In this respect, documents cited under Art. 54(3) should be disregarded in the evaluation of unity of invention, since they cannot anticipate the inventive concept of the application under examination.

8. Examiner's approach

Although lack of unity may arise *a posteriori* as well as *a priori*, it should be remembered that lack of unity is not a ground of revocation in later proceedings. Therefore, although the objection should certainly be made and amendment insisted upon in clear cases, it should neither be raised nor persisted in on the basis of a narrow, literal or academic approach. This is particularly so where the possible lack of unity does not necessitate a further search. There should be a broad, practical consideration of the degree of interdependence of the alternatives presented, in relation to the state of the art as revealed by the search report. If the common matter of the independent claims is well-known, and the remaining subject-matter of each claim differs from that of the others without there being any unifying novel concept common to all, then clearly there is lack of unity. If, on the other hand, there is a common concept or principle which is novel and inventive, then objection of lack of unity does not arise. For determining what is allowable between these two extremes, rigid rules cannot be given and each case should be considered on its merits, the benefit of any doubt being given to the applicant. For the particular case of claims for a known substance for a number of distinct medical uses, see G-II, 4.2.

When there is lack of unity, the claimed subject-matter is divided among the separate inventions. In this context the word "invention" means an invention having technical character and concerned with a technical problem within the meaning of Art. 52(1) (see G-I, 1 and 2), which does not necessarily need to meet other requirements for patentability, such as novelty and inventive step (see G-VI and G-VII).

8.1 Reasoning for a lack of unity objection

An objection of lack of unity should consist of logically presented, technical reasoning containing the basic considerations behind the finding of lack of unity. When necessary, this comprises the considerations relating to the number and grouping of the claimed separate inventions. In particular, the reasons should highlight the technical problem(s) addressed by the different inventions, unless it is perfectly clear from the remainder of the argumentation that the different inventions could not possibly be subsumed under an overall problem. For each invention or group of inventions the reasons should also specify the special technical features making a contribution over the art or the common general inventive concept, as appropriate. When the objection is based on a document, the relevant passages are appropriately identified.

8.2 Determination of the invention first mentioned in the claims

Rule 64(1)
Rule 164(1)

When lack of unity is established, the sequence of the claimed (groups of) inventions will normally start with the invention first mentioned in the claims ("first" invention); see also B-VII, 1.1 and 2.3. In other words, as a general rule the division of subject-matter follows the order of appearance of the different inventions in the claims. The content of the dependent claims will be taken into account when determining the first invention.

9. Dependent claims

No objection on account of lack of unity *a priori* is justified in respect of a dependent claim and the claim on which it depends, on the ground that the general concept they have in common is the subject-matter of the independent claim, which is also contained in the dependent claim. For example, suppose claim 1 claims a turbine rotor blade shaped in a specified manner, while claim 2 is for a "turbine rotor blade as claimed in claim 1 and produced from alloy Z". The common general concept linking the dependent with the independent claim is "turbine rotor blade shaped in a specified manner".

If, however, the independent claim appears not to be patentable, then the question whether there is still an inventive link between all the claims dependent on that claim needs to be carefully considered (see F-V, 7, non-unity "*a posteriori*"). It may be that the "special technical features" of one claim dependent on this non-patentable independent claim are not present in the same or corresponding form in another claim dependent on that claim (see also C-III, 4.1).

Any claim which refers to an independent claim but does not include all of its features is an independent claim (Rule 43(4)). Examples are a claim referring to another claim of a different category, or a claim specifying an alternative feature which is intended to replace a corresponding feature in the independent claim referred to (for example, an apparatus according to claim 1, wherein component C is replaced by component D).

10. Lack of unity during search

Rule 64(1) and (2)

In many and probably most instances, lack of unity will have been noted and reported upon by the Search Division which will have drawn up a partial search report based on those parts of the application relating to the invention, or unified linked group of inventions, first mentioned in the claims. The Search Division may neither refuse the application for lack of unity nor require limitation of the claims, but must inform the applicant that, if the search report is to be drawn up to cover those inventions present other than the first mentioned, then further search fees must be paid within two months.

11. Lack of unity during substantive examination

11.1 General principles

The final responsibility for establishing whether the application meets the requirement of unity of invention ultimately rests with the Examining Division (see T 631/97; see also C-III, 3.1). For Euro-PCT applications which have entered the European phase, see F-V, 13.

Whether or not the question of unity of invention has been raised by the Search Division, it must always be considered by the Examining Division. The conclusion reached may change, e.g. when further prior art becomes available at a later stage of the proceedings. When lack of unity of invention arises only during substantive examination, the examiner should raise an objection only in clear cases, particularly if substantive examination is at an advanced stage (see also H-II, 7.3).

Rule 36(1)

Whenever unity is found to be lacking, the applicant should be required to limit his claims in such a way as to overcome the objection (see C-III, 3.1 and 3.2), which means restricting them to a single searched invention (see H-II, 7.1). Excision or amendment of parts of the description may also be necessary (see F-V, 4). One or more divisional applications, covering matter removed to meet this objection, may be filed (see C-IX, 1), provided that the parent application is pending (A-IV, 1.1.1).

11.2 Objections to unsearched inventions

See H-II, 7.2 and 7.3.

11.3 Review of non-unity findings

The reviewing of non-unity findings and the refund of additional search fees are dealt with in C-III, 3.3.

Insofar as the Examining Division finds that unity of invention is given, if the applicant has paid the further search fee(s) and requested a full or partial refund thereof, the Examining Division will order refund of the relevant further search fee(s).

12. Amended claims

Rule 137(5)

For the situation where the applicant submits new claims directed to subject-matter which has not been searched e.g. because it was only contained in the description and at the search stage it was not found to be appropriate to extend the search to this subject-matter, see H-II, 6.2, and B-III, 3.5.

13. Euro-PCT applications

13.1 International applications without supplementary search

Art. 153(7)

As indicated in B-II, 4.3.1, for certain international applications entering the European phase with an international search report, no supplementary European search is carried out. The following situations may then be distinguished during substantive examination:

(i) If, during the international search, an objection of lack of unity has been raised and the applicant has not taken the opportunity to have the other invention(s) searched by paying additional search fees for them, but has taken the opportunity to amend the claims after receipt of the international search report (see E-VIII, 3.3.1) so that they are limited to the invention searched and has indicated that examination is to be carried out on these amended claims, the examiner proceeds on the basis of these claims.

Rule 164(2)

(ii) If, during the international search, an objection of lack of unity has been raised and the applicant has **neither** taken the opportunity to have the other invention(s) searched by paying additional search fees for them, **nor** amended the claims so that they are limited to the invention searched, **and** the examiner agrees with the objection of the ISA (taking into account any comments on the issue of unity submitted by the applicant in his response to the WO-ISA or IPER, see E-VIII, 3.3.1), he will then proceed to issue an invitation under Rule 164(2) to pay search fees for any claimed invention in the application documents for which no additional search fee has been paid to the EPO, where it has acted as the ISA.

(iii) If the applicant has paid additional search fees during the international phase, he may determine that the application is to proceed on the basis of any of the searched inventions, the other(s) being deleted, if the examiner agrees with the objection of the ISA. Where the applicant has not yet taken that decision, the examiner will, at the beginning of substantive examination, invite him to do so.

(iv) If the claims to be examined relate to an invention which differs from any of the originally claimed inventions, the examiner will proceed to issue an invitation under Rule 164(2) to pay search fees for any claimed invention in the application documents not covered by the international search report or supplementary international search report, if any (see C-III, 2.3).

(v) If the applicant has not paid additional search fees during the international phase and the examiner does not agree with the objection of the ISA (for example, because the applicant has convincingly argued in response to the WO-ISA or IPER, see E-VIII, 3.3.1, that the requirement of unity of invention is satisfied), an additional search will be performed (see B-II, 4.2(iii)) and the examination will be carried out on all claims.

In cases (i) to (iv), the applicant may file divisional applications for the inventions deleted to meet the objection of non-unity (see C-IX, 1, and A-IV, 1), provided that, when a divisional application is filed, the application being divided is still pending (see A-IV, 1.1.1). *Rule 36(1)*

13.2 International applications with supplementary search

For international applications entering the European phase with an international search report established by an ISA other than the EPO, a supplementary European search is carried out by the Search Division in the cases listed in B-II, 4.3.2. If the Search Division, during the supplementary European search, notes a lack of unity, B-VII, 2.3 applies. *Art. 153(7)* *Rule 164(1)*

The procedure before the Examining Division in such cases is described in E-VIII, 4.2. In brief, the examiner will proceed with the examination of that invention (or group of inventions) covered by the supplementary European search report which has been chosen by the applicant in response to the ESOP.

13.3 International preliminary examination report (IPER)

For international applications entering the European phase with an international preliminary examination report, the examiner should carefully take into account the position taken in that IPER before deviating from it. This may be necessary where the claims have been changed, the applicant successfully refutes the objection (either of which may happen in response to the IPER, see E-VIII, 3.3.1) or the interpretation of the rules regarding unity of invention was erroneous; see further F-V, 13.1 and 13.2 above.

13.4 Restricted IPER

If the EPO has established an IPER on the application and the applicant wishes to obtain protection pertaining to claims which were not the subject of this IPER because they were not searched during the international phase in consequence of an objection of lack of unity, he can decide to have such claims searched in response to the invitation *Art. 76* *Rule 164(2)*

to pay additional search fees under Rule 164(2) and choose them for further prosecution. Alternatively, he can decide to file one or more divisional applications for the inventions not searched, provided that, when a divisional application is filed, the application being divided is still pending (see A-IV, 1.1.1).

14. Relationship between Rule 43(2) and Art. 82

Rule 43(2) refers expressly to Art. 82. This makes clear that the requirement of unity has to be met by the subject-matter of the independent claims in the same category. Thus, special technical features relating to the single general inventive concept within the meaning of Rule 44 must be either implicitly or explicitly present in each of the independent claims.

Several independent claims in the same category directed to interrelated subject-matter may meet the requirement of unity even if it appears that the claimed subject-matter is quite different, provided that the special technical features making a contribution over the prior art are the same or corresponding within the meaning of Rule 44. Examples of such situations include a transmitter claimed together with a corresponding receiver, a plug claimed with a corresponding socket, etc. (see also F-IV, 3.2).

Special attention is required in the case of claims characterised by a combination of elements (e.g. A+B+C), accompanied by claims relating to sub-combinations (e.g. A+B, A+C, B+C or A, B, C separately). Even if the claimed sub-combinations define patentable subject-matter, and the combination claim includes all the features of the claimed sub-combinations, lack of unity of invention may still arise.

Where the application both lacks unity of invention and fails to comply with the requirements of Rule 43(2), the examiner may raise an objection under either Rule 43(2) or Art. 82 or under both. The applicant cannot contest which of these objections has priority (see T 1073/98, Reasons 7.2).

Chapter VI – Priority

1. The right to priority

In this respect see also A-III, 6.

1.1 Filing date as effective date

According to Art. 80, a European application is accorded as its date of filing the date on which it satisfies the requirements of Rule 40, or, if filed under the PCT, the date on which it satisfies Art. 11 PCT. This date remains unchanged except in the special circumstances of late-filed drawings or parts of the description provided for in Rule 56 EPC and Art. 14(2) PCT. *Rule 40*

The date of filing may be the only effective date of the application. It will be of importance for fixing the expiry of certain time limits (e.g. the date by which the designation of the inventor must be filed under Rule 60), for determining the state of the art relevant to the novelty or obviousness of the subject-matter of the application, and for determining, in accordance with Art. 60(2), which of two or more European applications from separate persons for the same invention is to proceed to grant.

1.2 Priority date as effective date

However, in many cases, a European application will claim the right of priority of the date of filing of a previous application. In such cases, it is the priority date (i.e. the date of filing of the previous application) which becomes the effective date for the purposes mentioned in the preceding paragraph. *Art. 89*

1.3 Validly claiming priority

For a valid claim to priority, the following conditions must be satisfied: *Art. 87(1) and (5)*

(i) the previous application must be one of those referred to in A-III, 6.2;

(ii) the previous application whose priority is claimed must have been filed by the applicant of the European application or his predecessor in title;

(iii) the previous application must have been filed not more than 12 months before the filing date of the European application (subject to certain exceptions, see A-III, 6.6); and

(iv) the previous application must have been the "first application" filed in respect of the same invention as the one to which the European application relates (see F-VI, 1.4 and 1.4.1).

As concerns (i), the words "in or for" any Member State of the Paris Convention or Member of the WTO, referred to in A-III, 6.2, mean that priority may be claimed in respect of a previous national application, a *Art. 87(2) and (3)*

previous European application, a previous application filed under another regional patent treaty or a previous PCT application. If the previous application was filed in or for an EPC Contracting State, this State may also be designated in the European application. The previous application may be for a patent or for the registration of a utility model or for a utility certificate. However, a priority right based on the deposit of an industrial design is not recognised (see J 15/80). So long as the contents of the application were sufficient to establish a filing date, it can be used to create a priority date, no matter what the outcome of the application may be; for example, it may subsequently be abandoned or refused (see A-III, 6.2).

As concerns (ii) and (iii), see A-III, 6.1 and 6.6, respectively.

Art. 87(1) As concerns (iv), the expression "the same invention" in Art. 87(1) means that the subject-matter of a claim in a European application may enjoy the priority of a previous application only if the skilled person can derive the subject-matter of the claim directly and unambiguously, using common general knowledge, from the previous application as a whole. This means that the specific combination of features present in the claim must at least implicitly be disclosed in the previous application (see F-VI, 2.2 and G 2/98).

1.4 First application

Art. 87(1) The filing date of the "first application" must be claimed as a priority, i.e. the application disclosing for the first time any or all of the subject-matter of the European application. If it is found that the application to which the priority claim is directed is in fact not the first application in this sense, but some or all of the subject-matter was disclosed in a still earlier application filed by the same applicant or his predecessor in title, the priority claim is invalid insofar as the subject-matter was already disclosed in the still earlier application (see F-VI, 1.4.1).

To the extent the priority claim is invalid, the effective date of the European application is the date of its filing. The previously disclosed subject-matter of the European application is not novel if the still earlier application referred to above was published prior to the effective date of the European application (Art. 54(2)) or if the still earlier application is also a European application which was published on or after the effective date of the European application in question (Art. 54(3)).

1.4.1 Subsequent application considered as first application

Art. 87(4) A subsequent application for the same subject-matter and filed in or for the same State or Member of the WTO is considered as the "first application" for priority purposes if, at the date this subsequent application was filed, the still earlier application had been withdrawn, abandoned or refused, without being open to public inspection and without leaving any rights outstanding, and had not served as a basis for claiming priority. The EPO will not consider this question unless there is evidence of the existence of a still earlier application as, for

example, in the case of a United States continuation-in-part application. Where it is clear that a still earlier application for the same subject-matter exists, and where the priority right is important because of intervening prior art (see F-VI, 2.1), the applicant should be required to establish by evidence from an appropriate authority (normally a national patent office) that there were no rights outstanding in the still earlier application in respect of the subject-matter of the application being examined.

Examples of applications that cannot be recognised as a "first application" within the meaning of Art. 87(4) are:

(i) US applications which are a "continuation" of a previous application ("con");

(ii) US applications which are a "continuation in part" of a previous application ("cip"), in so far as the subject-matter in question was already disclosed in the original US application;

(iii) national applications claiming priority from a previous national application or national utility model.

In the case of US con or cip applications, the first sentence of the description reads as follows: "This application is a continuation in part (continuation) of Serial Number .... filed .....". The following information is found on the title page under the heading "CONTINUING DATA******": "VERIFIED THIS APPLICATION IS A CIP (or CON) OF ....." A form headed "Declaration for Patent Application" must also be attached to the end of the application (in this case the priority document), listing earlier foreign or US applications under the heading "foreign priority benefits under Title 35, United States Code, 119" or "benefit under Title 35, U.S.C., 120 of any United States application(s)".

Applications may be filed by reference to a previously filed application (see A-II, 4.1.3.1). If no priority is claimed from this previously filed application, the filing by reference itself does not generate outstanding rights according to Art. 87(4). *Rule 40(1)(c)*

For example, in the case of national applications GB1 (filed on 1 February 2002, without claiming priority) and GB2 (filed on 2 January 2008, without claiming priority), pertaining to the same subject-matter, a European application EP1 (filed on 2 January 2009) claims priority of GB2 but refers to GB1 for its content according to Rule 40(1)(c). If GB1 is withdrawn, abandoned or refused, without being open to public inspection and without having served as a basis for claiming a right of priority, the mere reference to it under Rule 40(1)(c) does not amount to an outstanding right within the meaning of Art. 87(4). Consequently, in this case the priority claim to GB2 has to be considered valid for EP1.

1.5 Multiple priorities

Art. 88(2) and (3)

"Multiple priorities may be claimed" – i.e. a European application may claim rights of priority based on more than one previous application. The previous application may have been filed in or for the same or different States or Members of the WTO, but in all cases the earliest application must have been filed not more than 12 months before the date of filing of the European application. Subject-matter of a European application will be accorded the priority date of the earliest priority application which discloses it. If, for instance, the European application describes and claims two embodiments (A and B) of an invention, A being disclosed in a French application and B in a German application, both filed within the preceding 12 months, the priority dates of both the French and German applications may be claimed for the appropriate parts of the European application; embodiment A will have the French priority date and embodiment B the German priority date as effective dates. If embodiments A and B are claimed as alternatives in one claim, these alternatives will likewise have the different priority dates as effective dates. If, on the other hand, a European application is based on one previous application disclosing a feature C and a second previous application disclosing a feature D, neither disclosing the combination of C and D, a claim to that combination will be entitled only to the date of filing of the European application itself. In other words, it is not permitted to "mosaic" priority documents. An exception might arise where one priority document contains a reference to the other and explicitly states that features from the two documents can be combined in a particular manner.

2. Determining priority dates

2.1 Examining the validity of a right to priority

As a general rule, the examiner should not make any investigation as to the validity of a right to priority. However, the priority right assumes importance if prior art has to be taken into account which has been made available to the public within the meaning of Art. 54(2) on or after the priority date claimed and before the date of filing (e.g. an intermediate document, see G-IV, 3) or if the content of the European patent application is totally or partially identical with the content of another European application within the meaning of Art. 54(3), such other application claiming a priority date within that period. In such cases, (i.e. cases where the art in question would be relevant if of earlier date) the examiner must investigate whether the priority date(s) claimed may be accorded to the appropriate parts of the application he is examining and should inform the applicant of the outcome and whether, in consequence, the particular prior art under consideration, e.g. the intermediate document, or the other European application forms part of the state of the art within the meaning of Art. 54. Also, in the case of possible conflict with another European application under Art. 54(3), it may be necessary in addition to allocate effective dates to the appropriate parts of that other application and to communicate this to the applicant analogously (see also G-IV, 3). When the examiner

needs to consider the question of priority date, he should bear in mind all the matters which are mentioned in F-VI, 1.3 to 1.5 above.

If in case of a Euro-PCT application, where the EPO is acting as a designated or elected Office, the priority document is not on file, substantive examination may nevertheless be started. In such a case, without the priority document being on file, the application may even, where appropriate, be refused because the claimed subject-matter lacks novelty or inventive step, provided that the relevant state of the art is neither an intermediate document nor an Art. 54(3) application. However, no European patent may be granted until such time as the priority document is on file. In such a case, the applicant is informed that the decision to grant will not be taken as long as the priority document is missing.

If intermediate documents or Art. 54(3) applications exist and the patentability of the subject-matter claimed depends on the validity of the priority right, substantive examination cannot be finalised as long as the priority document is missing. Where the applicant has complied with Rule 17.1(a), (b) or (b-*bis*) PCT, he may not be requested to file the priority document. The proceedings have to be stayed and the applicant is informed that, since the patentability of the subject-matter claimed depends on the validity of the priority right, substantive examination cannot be finalised as long as the priority document is not on file.

2.2 The same invention

The basic test to determine whether a claim is entitled to the date of a priority document is, as far as the requirement of "the same invention" is concerned (see F-VI, 1.3(iv)), the same as the test for determining whether or not an amendment to an application satisfies the requirement of Art. 123(2) (see H-IV, 2). That is to say, for the priority date to be valid in this respect the subject-matter of the claim must be directly and unambiguously derivable from the disclosure of the invention in the priority document, also taking into account any features implicit to a person skilled in the art in what is expressly mentioned in the document (see G 2/98). As an example of an implicit disclosure, a claim to an apparatus including "releasable fastening means" would be entitled to the priority date of a disclosure of that apparatus in which the relevant fastening element was, say, a nut and bolt, or a spring catch or a toggle-operated latch, provided the general concept of "releasable" is implicit in the disclosure of such element. An example of where the subject-matter is not directly and unambiguously derivable is when the claim is directed to a specific numerical range of values and the priority application discloses a different numerical range of values, even if this latter range overlaps with or is comprised within the previous one. In such a case, the claimed amounts represent a continuum of a numerical range of values which does not correspond to distinctive, alternative embodiments (i.e. elements in the sense of Art. 88(3)). Therefore no separable alternative embodiments which could enjoy the right of priority are identifiable within that continuum (T 1877/08).

Art. 88(4)

It is not necessary that the subject-matter for which priority is claimed be found among any claims in the previous application. It is sufficient that the documents of the previous application taken as a whole "specifically disclose" such subject-matter. The description and any claims or drawings of the previous application should, therefore, be considered as a whole in deciding this question, except that account should not be taken of subject-matter found solely in that part of the description referring to prior art, or in an explicit disclaimer.

The requirement that the disclosure must be specific means that it is not sufficient if the subject-matter in question is merely referred to in broad and general terms. A claim to a detailed embodiment of a certain feature would not be entitled to priority on the basis of a mere general reference to that feature in a priority document. Exact literal correspondence is not required, however. It is enough that, on a reasonable assessment, there is in substance a disclosure of the same subject-matter of the claim.

A disclaimer which is allowable under Art. 123(2) (see H-V, 4.1 and 4.2) does not change the identity of the invention within the meaning of Art. 87(1). Therefore, such a disclaimer could be introduced when drafting and filing a successive European patent application, without affecting the right to priority from the first application not containing the disclaimer (see G 1/03, G 2/03 and G 2/10).

2.3 Priority claim not valid

If the tests set out in F-VI, 2.2 are not satisfied in relation to a particular previous application, then the effective date of the subject-matter of the claim in question will either be the filing date of the earliest application which does provide the required disclosure and of which the priority is validly claimed (see G 3/93) or, in the absence of such, will be the date of filing of the European application itself (or the new date of filing if the application has been re-dated under Rule 56).

2.4 Some examples of determining priority dates

Note: the dates used are merely illustrative; they do not take account of the fact that the filing offices of the EPO are closed on weekends and certain public holidays.

2.4.1 Intermediate publication of the contents of the priority application

P is the application from which priority is claimed by EP, D is the disclosure of the subject-matter of P.

1.1.90	1.5.90	1.6.90
filing	publication	filing
P	D	EP

D is state of the art under Art. 54(2) if the priority claim of P is not valid.

2.4.2 Intermediate publication of another European application

P1 is the application from which priority is claimed by EP1, P2 the one from which EP2 claims priority. EP1 and EP2 are filed by different applicants.

1.2.89	1.1.90	1.2.90	1.8.90	1.1.91
filing	filing	filing	publication	filing
P1	P2	EP1	EP1	EP2
A + B	A + B	A + B	A + B	A + B

EP1 is state of the art under Art. 54(3) if the respective priority claims of P1 and P2 are valid. This does not change if the publication of EP1 takes place after the filing date of EP2. The publication of EP1 is state of the art under Art. 54(2) if the priority claim of P2 is not valid.

2.4.3 Multiple priorities claimed for different inventions in the application with an intermediate publication of one of the inventions

EP claims priority of P1 and P2, D is the disclosure of A+B.

1.1.90	1.2.90	1.3.90	1.6.90
filing	publication	filing	filing
P1	D	P2	EP
A + B	A + B	A + B + C	claim 1: A + B claim 2: A + B + C

Claim 1 has a valid priority of P1 for its subject-matter, thus publication D is not state of the art under Art. 54(2) against this claim. Claim 2 cannot benefit from the priority of P1, as it does not concern the same subject-matter. Thus publication D is state of the art under Art. 54(2) for this claim (see G 3/93). It is immaterial whether claim 2 is in the form of a dependent or an independent claim.

2.4.4 A situation in which it has to be checked whether the application from which priority is actually claimed is the "first application" in the sense of Art. 87(1)

P1 is the earliest application of the same applicant containing the invention. EP claims the priority of the later US application P2, which is a "continuation-in-part" of P1. D is a public disclosure of A+B.

1.7.89	1.1.90	1.6.90	1.12.90
filing	filing	publication	filing
P1	P2 (cip)	D	EP
A + B	A + B A + B + C	A + B	claim 1: A + B claim 2: A + B + C

The priority claim of P2 for claim 1 is not valid as P2 is not the "first application" for this subject-matter in the sense of Art. 87(1), but P1 is, which has "left rights outstanding" in that P2 is a "continuation-in-part" thereof. Therefore Art. 87(4) does not apply and this is not altered by an abandonment, withdrawal, refusal or non-publication of P1. D is prior art pursuant to Art. 54(2) against claim 1, but not against claim 2, as the latter claim has the earlier priority of P2.

3. Claiming priority

3.1 General remarks

Art. 88(1)
Rule 52(1)
Rule 53(1) and (3)

An applicant who wishes to claim priority must file a declaration of priority giving particulars of the previous filing, as specified in Rule 52(1), together with a certified copy of the previous application and, if necessary for the assessment of patentability, a translation of it into one of the EPO official languages (see A-III, 6.7 and 6.8).

3.2 Declaration of priority

Rule 52(1) and (2)

A declaration of priority from an earlier filing should preferably be made at the time of filing the European application, although this can be done at any time within 16 months from the earliest priority date claimed (see A-III, 6.5.1). The declaration of priority must indicate the date of the priority application, the relevant State party to the Paris Convention or Member of the WTO, and the file number.

Rule 52(3)

A declaration of priority may be corrected within 16 months from the earliest priority date. This time limit cannot expire earlier than four months after the filing date (see A-III, 6.5.2).

3.3 Certified copy of the previous application (priority document)

Rule 53(1)

The certified copy of the previous application, i.e. the priority document, must be filed within 16 months of the priority date (see A-III, 6.7, for Euro-PCT cases see, however, E-VIII, 2.3.5), unless such a copy is already on file because it has been supplied in the context of Rule 40(3), see A-II, 4.1.3.1, or of a request pursuant to Rule 56, see A-II, 5.4.3.

Rule 53(2)

Moreover, in accordance with Rule 53(2) and the Decision of the President of the EPO dated 9 August 2012, OJ EPO 2012, 492, the EPO will include a copy of the previous application in the file of the European patent application without charging a fee, if the previous application is:

(i) a European patent application;

(ii) an international application filed with the EPO as receiving Office under the PCT;

(iii) a Chinese patent or utility model application;

(iv) a Japanese patent or utility model application;

(v) a United States provisional or non-provisional patent application; or

(vi) a Korean patent or utility model application.

No request is necessary to this end. However, as regards Chinese patent or utility model applications, this applies only if these were filed on or after 3 September 2012. If the previous application is a United States application, please see the Notice from the European Patent Office dated 27 June 2007 concerning practical aspects of the electronic exchange of priority documents between the EPO and the USPTO (OJ EPO 2007, 473). As soon as the EPO has included in the file of the European patent application a copy of the previous application, it informs the applicant accordingly.

3.4 Translation of the previous application

A translation of the previous application into one of the official languages of the EPO is required only if it is needed for determining the validity of the priority claim, where this is of relevance to the patentability of the underlying invention. The translation must be filed within the time limit set by the EPO. For more details on the procedure see A-III, 6.8 and sub-sections.

Art. 88(1)
Rule 53(3)

Alternatively, under Rule 53(3), a declaration that the European patent application is a complete translation of the previous application may be submitted within that same time limit. This declaration must be unambiguous, stating that the translation is "complete" or, for example, "identical" or "literal". Declarations in diluted or modified form (stating, for example, that the translation is "practically complete" or that the contents "are essentially the same") cannot be accepted. The same applies to cases where the declaration is obviously incorrect (e.g. if several priorities are claimed for a single European application or if the European application contains more or less text than is contained in the previous application as filed). In all these cases a complete translation must be filed. Where the European application contains claims on its date of filing and the priority application did not contain claims on its filing date or contained fewer claims on its filing date than the subsequent European application, the declaration cannot be accepted. A merely different arrangement of the various elements of the application (e.g. presenting the claims before the description, or vice versa) does not affect the validity of such a declaration. See also A-III, 6.8.6.

The translation or declaration under Rule 53(3) must also be filed in those cases where the EPO adds a copy of the previous application to the file (see Notice from the EPO, OJ EPO 2002, 192).

If the applicant has already provided the EPO with a translation of the priority document as part of a request under Rule 56 (see A-II, 5.4(vi))

Rule 56

to base missing parts of the description or drawings on the priority application itself, then there is no need for the applicant to file the translation a second time.

The request for translation cannot be made by telephone (regardless of whether this is mentioned in the minutes). Because of the time limit and its possible legal consequences, the request must always be made in writing. In examination proceedings it may be issued alone or may accompany a communication under Art. 94(3). The translation of the priority document may become necessary only at later stages of the examination procedure, when documents are retrieved by carrying out a "topping-up" search for conflicting applications under Art. 54(3) (see C-IV, 7.1, and A-III, 6.8.2). This may also happen during opposition proceedings where the applicant was not requested to file the translation before grant and the opponent raises patentability issues which require examination of the validity of the priority.

If the required translation or declaration is not filed within the time limit, the right of priority is lost and the applicant or proprietor is informed accordingly (see A-III, 6.11). This has the effect that the intermediate document(s) which resulted in the validity of the priority claimed becoming relevant for the assessment of patentability will belong to the prior art under Art. 54(2) or (3), as applicable (see A-III, 6.8.3). However, for reasons of legal certainty the right of priority remains effective for determining the state of the art for the purposes of Art. 54(3) (see F-VI, 2.1 and 3.5) in respect of any other European patent application. In that respect it is immaterial whether the translation or declaration has been filed, as changes taking effect after the date of publication do not affect the application of Art. 54(3).

If the required translation or declaration is filed within the time limit, ideally with accompanying observations, the extent of the validity of the priority and the co-dependent substantive issues will be examined.

3.5 Abandonment of priority claim

An applicant may voluntarily abandon a claimed priority at any time. If he does so before the technical preparations for publication have been completed, then the priority date is not effective and the publication is deferred until 18 months after the filing date. If it is abandoned after the technical preparations for publication have been completed, then the application is still published 18 months after the priority date originally claimed (see A-VI, 1.1 and G-IV, 5.1.1).

3.6 Re-establishment of rights in respect of the priority period

Art. 122
Rule 136(1)

An applicant may file a request for re-establishment of rights in respect of the priority period under Art. 122 (see A-III, 6.6). Any request for re-establishment of rights in respect of the period specified in Art. 87(1) must be filed within two months of expiry of that period, according to Rule 136(1), second sentence. Where a request for re-establishment in respect of the priority period has been allowed, the examiner should

carefully review the relevance of prior art documents cited previously in the search report or communications.