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EXAMINATION GUIDELINES of Patent Applications

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CONTENT OF PATENT APPLICATIONS

Chapter I TITLES

1.01 The title of the application must define concisely, clearly and precisely the technical scope of the invention, and the same applies for the request, the specifications, the abstract and the list of sequences, if applicable. The examiner must evaluate whether the title is a fair representation of the different categories of claims. It is not obligatory for all the independent claims within the same category to be represented in the title.

Example: If an application claims more than one alternative for a single category of independent claim, these alternatives may be represented together.

1.02 If the claims change category, the title must be changed appropriately. If the examiner believes that an official grounded action may arise due to the title, he/she may suggest a new title.

Chapter II SPECIFICATIONS

Presentation

2.01 The examiner must check that the specifications are presented so that they:

- begin with the title;
- refer to a single invention, or a cluster of inventions interrelated in a such a way as to comprise a single inventive concept;
- specify the technical field to which the invention refers;
- describe the state of the art that the applicant considers useful for understanding the invention, stressing the existing technical problems;
- explain the invention, as claimed, to enable understanding of the technical problem and the solution, and establish any beneficial effects of the invention in relation to the relevant state of the art;
- clearly highlight the novelty of the technical effect achieved, and the evidence for it;
- list the figures that appear among the drawings, specifying what is shown, such as perspectives, items, circuit diagrams, block diagrams, flowcharts, graphs etc.;
- describe the invention consistently, precisely, clearly and sufficiently, so that a technician in the field could implement it, quoting the references contained in the drawings, if any, and, whenever necessary, use examples and/or comparative tables relating them to the state of the art;
- emphasise, if appropriate, the best way of implementing the invention known to the applicant at the date of filing or the date of priority, if applicable. The best form of implementation applies to all the elements considered essential to the invention, even if they are not claimed.

Example: An invention refers to an elastomer seal and the relevant treatment method for manufacturing this seal. Even if this method is not claimed, if it is considered essential for achieving the differentiated characteristics presented by the seal, it must be described in the specifications as the seal claimed could not be implemented without the description of the method.

- explicitly indicate the way in which the invention could be used or produced in any type of industry, if this is not included in the description of the invention.

2.02 The examiner may allow presentation to differ from the method specified above only if this enables better understanding of the invention.

The State of the art

2.03 The specification must include the state of the art that is relevant to the invention or that could be useful for understanding, search and examination of the invention.

2.04 The documents cited as representative of the state of the art must be identified, be they patent literature or non-patent literature, such as scientific articles, journalistic material and conference proceedings, for instance.

2.05 In the course of the examination, the examiner may require the applicant to insert references to the documents on the state of the art in the specifications of the application, such as documents found during the search for instance, provided that the contents of these documents do not go beyond the disclosure of the invention originally filed in the application.

Technical problem to be solved by the invention and proof of technical effect achieved

2.06 The invention must be described in such a way that the technical problem and the proposed solution can be understood. To meet this condition, the details considered necessary for explaining the invention must be included.

2.07 In accordance with the Normative Instruction that is in force, it is necessary that the invention resolve technical problems, as the solution to these problems, and it should have a technical effect. It is therefore necessary to prove the technical character of the problem to be resolved by the proposed solution. The effects achieved in order for the invention to be deemed an invention may be proved later, provided that no new subject matter needs to be added.

2.08 A patent application need not necessarily describe the optimum solution to the problem to which it refers, and it need not necessarily imply that the technical solution is an advance on the

state of the art. Thus, the proposed solution may simply be a search for an alternative, using different technical approaches, provided that the requirements for patentability have been met.

2.09 Documents relating to the state of the art, identified after filing, i.e. during the search or to aid the examination, may allow the technical problem of the application to be reformulated and/or substituted by another technical problem. In this case, provided that this reformulation can be deduced by a technician in the field and is inherent to the subject matter initially revealed, on the basis of the application as filed, such documents may be included in the specifications to prove the contribution made by the invention to the state of the art.

2.10 The term "inherent" requires that the undescribed subject matter is necessarily implicit in the application as filed, and that this would be recognised by a technician in the field. Inherence cannot be established by probabilities or possibilities. The mere fact that something may result from a given set of circumstances is not sufficient.

2.11 Reformulation of the technical problem, in the terms of the previous paragraph, cannot be incorporated into the framework of claims. However this may mean that characteristics originally only present in the specifications, drawings or abstract are added to the claims, when filing, as this does not imply an expansion of the scope of the subject matter claimed.

Industrial application

2.12 The specifications must explicitly indicate the way in which the invention could be utilised in industry, if this is not inherent to the specifications or the nature of the invention.

Sufficient description

2.13 Sufficient description must be evaluated on the basis of the specifications, which must present the invention in a sufficiently clear and precise way for it to be reproduced by a technician in the field. The specifications must be sufficiently detailed to realise the invention claimed.

2.14 The definition of a technician in the field is broad. The

technician in the field may be someone with an average knowledge of the technology in question at the time the application is filed, with technical/scientific skills, and/or someone with practical operational knowledge of the subject. It is assumed that he/she is in possession of the resources and capacity for routine work and experimentation that are usual in the technical field in question. There may be cases where it would be more appropriate to think in terms of a group of people, as in the case of a production or research team. This may be applied particularly for certain advanced technologies such as computers and nanotechnology.

2.15 In this context, you should ensure that the application contains sufficient technical information to enable a technician in the field to:

- (i) put the invention into practice, as claimed, without undue experimentation; and
- (ii) understand the contribution made by the invention to the state of the art to which it relates.

Undue experimentation means that if a technician in the field works from the content revealed in the invention, he/she needs to carry out additional experimentation to implement it.

2.16 The description of the theoretical basis that justifies the functioning and results achieved by the invention must be presented in the specifications to enable better understanding of the invention, although this is not a determining factor for sufficient description, as this criterion only requires there to be a description that enables a technician in the field to implement the invention. In cases where this description is considered essential for the search and analysis of the application and for the best understanding of the invention, it must always be present.

Filing of biological material

2.17 If the application relates to biological material which is essential for practical implementation of the object of the application, which cannot be described as per article 24 of LPI and which is not accessible to the public, before the patent application is filed the specifications should be supplemented by depositing the material with an institution that is authorised by the INPI or indicated in an international treaty.

2.18 If there is no such institution located in Brazil, authorised by the INPI or indicated in an international treaty effective in Brazil, the applicant may deposit such material with any of the authorities for international deposit recognized by the Budapest Treaty. This should be carried out by the date when the patent application is filed, and this data should be included in the specifications of the patent application.

Lists of sequences

2.19 If a patent application contains one or more sequences of nucleotides and/or amino acids in its object, and they are fundamental for describing the invention, the applicant must show them in a list of sequences so it is possible to gauge if the description is sufficient as per article 24 of LPI.

Subject matter initially revealed in the specifications

2.20 Article 32 of LPI establishes that for improved clarity or definition of the patent application, the applicant may make changes until the request for the examination, provided that they are limited to the subject matter originally disclosed in the application.

The subject matter disclosed is understood to be all the subject matter included in the patent application as a whole: the specifications, claims, abstract and drawings (if present).

2.21 There are no objections to the applicant making changes to the specifications at any time, if they relate only to an improved description of the state of the art, or elimination of inconsistencies in the text.

2.22 Inclusion of data, parameters or characteristics of the invention that were not present in the application originally filed constitute an addition to the subject matter, and as such they will not be accepted.

Example 1: In patent applications that refer to a chemical composition containing several ingredients, an additional ingredient in this composition would be considered an undue addition to the subject matter. Similarly, if a patent application described a bicycle frame without specifying the type of material, it would be an addition to subject matter if the applicant requested a change that specified that it was essential for the invention that the

material be aluminium. If this change merely represented the state of the art, it would be accepted. Example 2: If an invention refers to a rubber without ever disclosing explicitly, for example, that the rubber is elastic, a change to the specifications mentioning this characteristic could be accepted without this constituting an addition to subject matter, as a technician in the field would be aware that this characteristic is inherent to any rubber at the time of filing.

2.23 Changes to the specifications due to a technical official grounded action or an acknowledgement of opinion from the INPI must be examined. If at this point the applicant presents voluntary changes to the specifications not directly resulting from the examination, these must also be examined and they will be accepted provided that they are limited to the subject matter initially disclosed in the application.

2.24 After the examination request, voluntary changes to the specifications may be accepted, provided that they are limited to the subject matter initially disclosed in the application.

Use of proper names, registered trademarks or trade names

2.25 Use of proper names, registered trademarks, trade names or similar words if these words merely refer to the origin or a set of different products is not permitted.

2.26 Exceptions can be made if these words are accepted as standardised descriptive terms. In this case, such words are permitted without the need for supplementary identification of the product to which they refer.

References

2.27 References used in the drawings must appear in the specifications.

2.28 The specifications and the drawings must be mutually consistent and the references must be defined in the specifications.

2.29 The references must be uniform throughout the application.

Terminology

2.30 The specifications must be clear, using terms that are recognised in the technical field. Technical terms that are rare or specially formulated may be accepted, provided that they have been appropriately defined and there is no recognised equivalent in the technical field.

2.31 This criterion also applies to foreign terms when there is no equivalent in the local language. Terms that are already well established must not be used with a different meaning, to avoid confusion.

2.32 The terminology must be uniform throughout the application.

Physical values and units

2.33 When properties are used to characterise a material, the relevant units must be specified if quantitative considerations are involved. If this is done using a published standard (e.g. a screen size standard), and a set of acronyms or similar abbreviations is used to refer to this standard, this information should figure appropriately in the specifications.

2.34 The weight and measurement units must be expressed in the international system of units, its multiples and sub-multiples, except for terms that are established in specific technical areas, such as Btu, mesh, barrel, inches. If the unit used differs from the established practice in the sector and from the international system of units, the applicant must present the appropriate conversion to the international system of units.

2.35 In regard to geometrical, mechanical, electrical, magnetic, thermal, optical and radioactive indications, the provisions of the General Chart of Measurement Units determined by the competent national entity will be observed.

2.36 The chemical formulas and/or mathematical equations, and also the symbols, atomic weights, nomenclature and specific units that are not foreseen in the General Chart of Measurement Units determined by the competent national entity must observe the practice generally adopted in the field.

2.37 The terminology, the symbols and the system of units adopted must be uniform throughout the application.

Generic statements

2.38 Generic statements in the specifications, using vague or imprecise terms, which affect the extent of the protected subject matter will not be permitted, on the basis of article 24 of LPI.

2.39 In particular, objections must be raised to any statement that refers to an extension of the protection to cover the "spirit" of the invention. Objections must also be raised to a "combination of characteristics" or to any statement implying that the invention refers not only to the combination as a whole, but also to the individual characteristics or sub-combinations.

Reference documents

2.40 The documents cited as a reference in the patent applications may relate to the state of the art or part of the disclosure of the invention. References to a document, be it patent literature or non-patent literature, relating to the state of the art may be present in the application originally filed or may be introduced at a later date (see 2.03).

2.41 If the reference document relates to the invention, the examiner must firstly consider whether the contents of this reference document are indeed essential for the implementation of the inventions as per article 24 of LPI:

(a) If it is not essential, the usual expression "that this is included for reference purposes" or another similar expression, may be maintained in the specifications; and

(b) If the subject matter to which reference is made is essential to ensuring a sufficient description, the examiner must demand that the above expression is removed and that the subject matter is expressly included in the specifications, as the application must contain all the necessary descriptions, i.e. it must make it possible to understand the essential characteristics of the invention without reference to any other document.

2.42 However, incorporating essential subject matter or characteristics in this way is subject to restrictions in article 32 of LPI, which states:

- (a) the protection was initially claimed for said characteristics, as per article 25 of LPI;
- (b) these characteristics help to resolve the technical problem underlying the invention;
- (c) these characteristics are clearly part of the description of the invention that appears in the application, and thus part of the application as filed; and
- (d) these characteristics are defined precisely and can be identified from the technical information in the reference document.

2.43 If the reference document is essential for implementing the invention, and it was not available to the public when the application was filed, it can be accepted as a reference only if it is made available to the public by the date when the application is published. If it is not available, the examiner must question whether the application has a sufficient description on the basis of article 24 of LPI.

2.44 In the exceptional case that the application cites a published document which is not accessible to the examiner, and the document is found to be essential for a correct understanding of the invention such that it is not possible to carry out a meaningful search without knowledge of the contents of this document, the examiner must issue an official grounded action requiring the applicant to present the document. In this case, if the reference document is in a foreign language, this reference document must be accompanied by a Portuguese translation.

2.45 If the copy of this document is not presented in time to comply with this official grounded action, and the applicant cannot convince the examiner that the document is not essential for carrying out a meaningful search, the examiner must issue an acknowledgement of opinion, because the application offers an insufficient description, on the basis of article 24 of LPI, as this document is unavailable.

2.46 If reference is made to a document in an application as originally filed, the relevant content of the reference document must be considered to be part of the content of the application, to show prior art compared to subsequent applications.

Chapter III THE FRAMEWORK OF CLAIMS

General

3.01 The application must contain one or more claims, which must:

- define the subject matter for which protection is required;
- be clear and precise; and
- be grounded on the specifications.

3.02 On the basis of the points above, the quantity of independent and dependent claims must be sufficient to define correctly the object of the application.

Numbering

3.03 The claims must be numbered consecutively, using Arabic numerals.

Form, content and types of claim, Preamble, brief description of characteristics and section describing characteristics

3.04 As an invention generally consists of known characteristics and new characteristics, to facilitate understanding of the nature of the invention, an independent claim must be made up of:

- (i) an initial section, which should preferably include the title or part of the title corresponding to the respective category;
- (ii) if necessary, a preamble, containing the characteristics already covered by the state of the art; and
- (iii) the obligatory expression "characterised by" followed by a section listing characteristics, to show the features of the invention.

3.05 Known elements and new elements are separated simply to help distinguish them, as this does not change the coverage or scope of the claim, which will always be determined on the basis of the sum of the characteristics contained in the preamble and in the section describing characteristics.

3.06 You should ensure that the novelty of the characteristics contained after the term "characterised by" are always established in relation to the set of characteristics that are known and defined in the preamble.

3.07 If the preamble defines characteristics A and B that are mutually associated, and the section describing characteristics defines characteristics C and D, it does not matter whether C and/or D themselves are already known, but it does matter if they are known in association with A and B, or rather not just with A or with B, but with both. For example, a machine has 4 different elements, A, B, C and D, which are all known to the state of the art. However the machine consists of a combination of these four elements, which may be new together and may constitute an invention.

3.08 The preamble may not be correctly formulated in some situations if the invention is:

- (i) a specific combination of components that are themselves known;
- (ii) a modification to known processes by omitting or substituting one stage, as opposed to adding a stage;
- (iii) a modification to known products by omitting or substituting one constituent, as opposed to adding a constituent; and
- (iv) a complex system of functionally inter-related parts, where the essence of the invention lies in this inter-relation.

3.09 For the specific case of process patents, the set of sequential stages is what correctly defines the case. Thus, although some of the stages in this process are included in the state of the art, it may not be possible to put them individually in the preamble to the claim without disrupting the structure and the logic of the process claimed. In this case, the term "characterised by" must be positioned correctly.

Technical characteristics

3.10 The claims must be written on the basis of the "technical characteristics of the invention", which means that the claims must not contain characteristics associated with commercial benefits or other non-technical aspects.

Example: The specifications for a claim describing a sports shoe that has a sole and means of fastening the sole must present the means that could be used for this end, such as buttons, Velcro etc.

3.11 In a claim for "means and function", the specifications of the patent application must include at least one form of implementation presenting the structural elements used to achieve these functions.

3.12 In accordance with the Normative Instruction that is in force, claims are not accepted if they include sections explaining benefits and just the use of the object. In this sense a distinction must be made between the sections that are merely explanatory and the relevant functional characteristics.

3.13 It is not necessary for each of the characteristics of the invention to be expressed solely in terms of its structural elements. Functional characteristics can also be included, provided that a technician in the field would have no difficulty in accessing the elements to implement the function, at the time of invention.

3.14 Claims related to the use of the invention, in terms of its technical application as included in the specification, are permitted.

Formulas and tables

3.15 Claims and specifications may contain chemical or mathematical formulas, but not drawings. Claims may contain tables only if they are indispensable for the clarity of the subject matter claimed.

Types of claim

3.16 There are just two types of claims: "product claims", which refer to a physical entity, and "process claims", which refer to the entire activity, in which some material product is necessary to carry out the process. The activity may be carried out on material products, on energy and/or on other processes, such as control processes.

3.17 Examples of "product claims" include: a product, a piece of apparatus, an object, an article, a piece of equipment, a machine, a device, a system of equipment that works together, a compound, a composition or a kit; "process claims": a process, a function or a method.

3.18 Process and method are synonyms for all purposes.

3.19 A single application may present claims in one or more categories, provided that they are linked by the same inventive concept.

Formulation of claims

3.20 The formulation of claims must:

- (a) preferably start with the title of the claim and it must contain the term "characterised by" once;
- (b) define the technical characteristics to be protected by the claim clearly and precisely, in a positive way;
- (c) be totally grounded on the specifications;
- (d) not include references to the specifications or the drawings in the characteristics of the invention along the lines of "as described in the section of the specifications" or "exactly as shown in the drawings";
- (e) be accompanied by the technical characteristics in brackets, if the application contains drawings. The references used in the drawings must be explained, if this is necessary for understanding. It should be understood that these references do not limit the claims;
- (f) not be interrupted with full stops;
- (g) not include sections of explanation describing the benefits or just the way the object is used, as these will not be accepted.

Independent claims

3.21 Independent claims aim to protect essential and specific technical characteristics of the invention as an overall concept.

3.22 There may be at least one independent claim for each category of claim.

3.23 The examiner must bear in mind that the applicant has the option of protecting his/her invention by making claims in various categories, which are written in different ways. The examiner should not oppose this type of protection using a rigorous approach, but should limit unnecessary proliferation of independent claims.

3.24 Each independent claim must correspond to a specific set of characteristics that are essential for implementing the invention, as more than one claim will be allowed in the same category only if these claims define different sets of alternative characteristics that are essential for implementing the invention, and that are linked by the same inventive concept.

3.25 Inter-related independent claims in different categories that are linked by the same inventive concept, where one of the categories is specially adapted to the other, must be formulated in a way that proves that they are inter-related. The following type of expressions should be used in the initial part of the claim: "Device for implementation of the process defined in the claim...", "Process for obtaining the product defined in the claim...".

3.26 Examples of inter-related claims:

- (i) plug and socket for interconnection;
- (ii) transmitter and receiver;
- (iii) final and intermediate chemical product(s);
- (iv) gene, gene construction, host, protein and medicine; and (v) product and use of the product.

3.27 If necessary, independent claims must contain a preamble, between the initial part and the expression "characterised by", explaining the characteristics that are essential to the definition of the subject matter claimed that is already part of the state of the art (see 3.04).

3.28 After the expression "characterised by" there must be a definition of the specific essential technical characteristics that are to be protected, along with the aspects explained in the preamble (see 3.04).

3.29 Independent claims may be a basis for one or more dependent claims, and they should be grouped by category.

Dependent claims

3.30 Dependent claims include all the characteristics of another previous claim/other previous claims and details of these characteristics and/or additional characteristics that are not considered to be essential characteristics of the invention. They should contain an indication of the dependence on this claim/ these claims and the expression "characterised by".

3.31 Dependent claims must not exceed the limits of the characteristics included in the claim(s) to which they refer.

3.32 Dependent claims must include a precise and comprehensible definition of their dependency relationships. Formulations along the following lines will not be accepted: "in accordance with one or more of the claims...", "in accordance with the previous/preceding claims...", "in accordance with any of the previous/preceding claims", "in accordance with one of the previous/preceding claims" or similar. Formulations along the lines of "in accordance with any one of the previous/preceding claims" will be accepted.

3.33 Any dependent claim that refers to more than one claim, i.e. a claim with multiple dependency, must allude to these claims alternatively or additionally, provided that the dependency relations of the claims are structured in a way that allows immediate understanding of the possible combinations resulting from these dependencies.

3.34 Claims with multiple dependencies, in alternative or additional form, may serve as a basis for any other multiple dependency claim, provided that the dependency relations of the claims are structured in a way that allows immediate understanding of the possible combinations resulting from these dependencies.

3.35 All dependent claims that refer to one or more previous claims must be grouped to ensure that the claim has a concise structure.

Clarity and interpretation of claims

General

3.36 The condition that the claims must be clear applies to individual claims and to the framework of claims as a whole.

It is very important that claims are clear, as they define the subject matter to be protected. Thus the meaning of the terms in the claims must be clear to a technician in the field from the text of the claim, on the basis of the specifications and drawings, if there are any. Taking into account the differences in the scope of the protection achieved by different categories of claims, the examiner must ensure that the text of the claim is clear for the category that it represents.

3.37 Claims are interpreted on the basis of the specifications and drawings (and the list of sequences if there is one), as well as the general knowledge of the technician in the field at the time of filing. If the specifications define any particular term that appears in the claim, then this definition is used to interpret the claim.

3.38 In the case of Markush claims, the examiner must ensure that the acquisition processes described in the specifications substantially enable preparation of all the compounds claimed, i.e. the examples must be representative of all the classes of compounds claimed, or all these classes must have sufficient descriptions in the specifications.

3.39 In cases where the technician in the field cannot implement the invention as claimed, or this requires an undue amount of experimentation, the generic claims must be restricted to the forms of implementation mentioned in the specifications.

Inconsistencies - basis in the specifications and figures

3.40 Any inconsistency between the specifications and the framework of claims must not be accepted, as this casts doubt on the extent of protection and means that the framework of claims is not clear or it has no basis in the specifications. This inconsistency may be of one of the following types:

(i) Simple verbal inconsistency - when the specifications must necessarily be limited to a specific characteristic, but the claims do not observe this limit. The inconsistency may be resolved by adapting the framework of claims to the specifications, to restrict its scope, on the basis of article 25 of LPI, paying special attention to article 32 of LPI. If the specifications refer to a specific characteristic, for example screws, and the framework of claims lays claim to means of fastening in general, and the examiner understands that the invention need not be limited to screws, it is deemed that there is no inconsistency between the specifications and the framework of claims. The situation is different if the claim presents a limitation but the specifications do not place special emphasis on this characteristic. In this case, there is no inconsistency between the specifications and the framework of claims.

(ii) Inconsistency referring to apparently essential

characteristics - if it is generally known in the technical field or it is established or implicit in the invention that a certain technical characteristic that appears in the specifications is considered to be essential for implementation of the invention but it is not mentioned in an independent claim, this claim must not be permitted by the examiner, on the basis of article 25 of LPI.

Generic statements

3.41 As in the specifications, generic statements in the framework of claims, which imply that the scope of protection could be extended in terms that are vague and not precisely defined, are an irregularity, on the basis of article 25 of LPI. In particular, objections must be raised to any statement that refers to an extension of the scope of protection to cover the "spirit" of the invention. Objections must also be raised to claims for a combination of characteristics or to any statement seeming to imply that the protection is claimed not only for the combination as a whole, but also for the individual characteristics or sub-combinations.

Essential characteristics

3.42 An independent claim must explicitly specify all the essential characteristics necessary for defining the invention, unless these characteristics are implicit due to the generic terms used. For example, when referring to a "bicycle" it is not necessary to mention that it has wheels.

3.43 If a claim refers to a product of a well-known type and the invention lies in the modification of certain aspects, it is sufficient if the claim clearly identifies the product, and specifies the nature of the modification and the way in which it works. Similar considerations apply to claims for a device.

3.44 Patentability of the invention depends on the technical effect achieved, so the claims must be formulated in such a way as to include all the technical characteristics that are considered essential for achieving the technical effect, and these must be contained in the specifications.

Use of relative and/or imprecise terms

3.45 The use of relative terms such as "large", "wide", "strong"

etc. is not permitted in a claim, except with a meaning that is well established in a particular technical field, such as "high frequency" in relation to an amplifier, where this is the intended meaning. A relative term that does not have this meaning must be replaced with a more precise term or by another that has already been described in the specifications as filed.

3.46 Imprecise words or expressions, such as "nearly", "substantially", "approximately" etc. are not allowed in a claim, regardless of whether they are considered to be essential for the invention.

3.47 If relative terms or imprecise expressions are used in the claim, the examiner must find that there is a lack of clarity. Counter-arguments from the applicant alleging that the elements lacking from the text are part of the state of the art cannot be accepted, as there will still be problems with lack of clarity. Nonetheless, including these elements in the text is considered to be an addition to the subject matter, and as such is not permitted.

The terms "consist of" and "include"

3.48 The term "consist of", and derivatives thereof, are considered to be closed-end terms for definition of the invention. This means that if a claim relates to a "chemical composition characterised by consisting of the components A, B and C", the presence of any other additional components is excluded.

3.49 The terms "include", "contain", "encompass", and derivatives of these terms, are considered to be open-end terms for definition of the invention, i.e. in the example above "characterised by including the components A, B and C" does not limit the definition to just these elements, and it can be accepted, provided that these elements are the essential ones for implementing the invention.

Optional characteristics

3.50 Expressions such as "preferably", "for example", "such as", "but particularly" etc. must be examined with special care to ensure that they do not introduce ambiguity. These expressions do not limit the scope of a claim, i.e. the characteristic that follows any expression such as these can be considered to be entirely optional. Example: In a process claim that claims a temperature parameter

"...between 80°C and 120°C, preferably 100°C", the term "preferably" does not cause ambiguity.

Proper names, registered trademarks or trade names

3.51 Proper names, registered trademarks or trade names in claims must not be permitted, as there are no guarantees that the product or characteristic associated with a brand or similar term could not be modified while the patent is in force. They may be authorised, exceptionally, if use of these terms cannot be avoided and if it is generally recognised that they have a precise meaning.

Definition of the protected subject matter in terms of the result to be achieved

3.52 As a general rule, claims that define the invention using the result to be achieved must not be permitted, particularly if they refer to a claim in relation to the technical problem only. However, they may be permitted if the invention can be defined in these terms only, or cannot be defined more precisely without unduly restricting the scope of the claims, and if the result can be directly or positively verified by appropriately specified tests or procedures listed in the specifications, or if they would be known by a technician in the field without the need for undue experimentation. Example: A claim relating to material characterised by being able to extinguish burning cigarettes, with specifications that present the chemical composition of this material, would not be accepted, as the material can be characterised by its chemical composition rather than by the result to be achieved by the invention.

3.53 It should be noted that the requirement above for definition of the protected subject matter in terms of the result to be achieved is different from the requirements for definition of protected subject matter in terms of functional characteristics (see 3.97).

Definition of protected subject matter in terms of parameters

3.54 Parameters are characteristic values that may be directly measurable properties, such as the melting point of a substance, the flexural strength of a type of steel, the resistance of an electric conductor, or they can be defined as mathematical combinations containing several variables in the form of formulas.

3.55 A product may be characterised using only its parameters in cases where the invention cannot be appropriately defined in another way, as these parameters can be determined clearly and reliably, either through statements in the specifications or through objective procedures that are common in the state of the art. The same applies for a characteristic relating to a process that is defined using parameters.

3.56 Cases where uncommon parameters are used are not generally permitted, even if they are appropriately described, due to a lack of clarity, as it is not possible to make any significant comparison with previous technology. These cases can also mask a lack of novelty. In these cases, the applicant should prove in the specifications that the uncommon parameter(s) used are equivalent to those used in the state of the art, or that they do not constitute an addition to subject matter.

3.57 Cases where the method and the means of measuring the parameters must also be presented in the claim are covered by 3.58.

Methods and means for measuring parameters mentioned in claims

3.58 The invention must be defined completely in the claim itself. In principle, the measuring method is necessary for unequivocal definition of the parameter. Nonetheless, the method and means of measuring parameter values are not necessary for claims if:

- (i) the description of the method is so long that including it would make the claim unclear, as it would not be concise and it would be hard to understand;
- (ii) a technician in the field would know which method should be used, for example, because there is only one method, or because a particular method is routinely used; or
- (iii) all known methods achieve the same result - within the limits of measuring accuracy.

3.59 However, in all other cases, the method and means of measurement must be included in claims, as these define the subject matter to be protected.

Claims for a product from a process

3.60 Product claims defined in terms of a manufacturing process are permitted only if the products comply with the requirements for

patentability, i.e. specifically that they are new and innovative, provided that the product cannot be described in another way. A product is not considered new simply because it is produced using a new process. Regarding analysis of novelty, a claim for product X obtained using process Y is not considered to be new if prior art is found for product X, regardless of the method used to obtain it.

3.61 A claim that defines a product in terms of a process must be interpreted as a claim for a product as such. The claim may, for example, take the form "Product X characterised by being obtained through process Y". Regardless of whether the term "obtain", "obtained", "obtained directly" or a similar term is used in the claim for the product from a process, the claim still relates to the product itself and confers absolute protection on the product. This type of claim may be accepted only if it is not possible to define the product itself appropriately without referring to the manufacturing process.

Example: A material is prepared including a new sintering stage. The resulting product has different characteristics—greater mechanical resistance in comparison to the state of the art for materials with the same nominal composition—although the applicant cannot describe the material itself. In this case, the product may be described in terms of the product obtained using the process.

Definition by reference to use or another object

3.62 When a product claim (see 3.16) defines the invention with reference to the characteristics relating to use, this may result in a lack of clarity.

3.63 Consider the case where the claim does not just define the product itself, but also specifies its relationship with a second product that is not part of the product claimed.

Example: The cylinder head of an engine, where the former is defined by the characteristics of where it is placed in the latter.

3.64 Before considering a restriction for the combination of two products, one should remember that the applicant has a right to independent protection for the first product.

Example: A claim for a "cylinder head connected to an engine" cannot be modified to "cylinder head connectable to an engine" or to the cylinder head itself, as this would be interpreted as a violation

of article 32 of LPI, although this change may be supported by the specifications initially disclosed.

3.65 On the other hand, as the first product can be produced and marketed many times independently of the second product, a claim for a "cylinder head that can be connected to an engine", as initially claimed, can be modified to "cylinder head connected to an engine" or to a cylinder head itself.

If it is not possible to provide a clear definition for the first product on its own, then the claim must focus on a combination of the first and second products: "cylinder head connected to an engine" or "engine with cylinder head".

3.66 It may also be permissible to define the dimensions and/or the shape of the first object in an independent claim with general reference to the dimensions and/or corresponding shape of a second object that is not part of the first claimed entity but is related to it by use. This particularly applies when the size of the second object is somehow standardised.

Example: In the case of a mounting support for a vehicle number plate, where the support frame and fastening elements are defined in relation to the outer shape of the plate.

3.67 However, references to other entities that cannot be seen to be standardised may also be sufficiently clear in cases where a technician in the field would have little difficulty in inferring the restriction resulting from the scope of protection for the first object.

Example: In the case of a cover for a round agricultural stall, where the length and width of the cover are defined on the basis of the dimensions of the stall.

3.68 It is not necessary for such claims to contain the exact dimensions of the second entity, even if they 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 unduly restrict the scope of protection.

The term "in"

3.69 To avoid ambiguity, the term "in" must be examined with special care in claims where it defines a relationship between different

physical entities (product, equipment), between entities and activities (process, use), or between different activities. The following are examples of claims that make use of the word "in" in this context:

(i) Engine cylinder head in a four-stroke engine, characterised by...;

(ii) Tone dialling detector, in a telephone with an automatic dialler, the tone dialling detector characterised by...;

(iii) Method for controlling the current and voltage in a process using the power supply equipment for an arc welding electrode, characterised by the following stages:...; or

(iv) Improvement X... in a process/system/equipment etc. characterised by...

3.70 In claims of the type indicated in examples (i) and (iii), the emphasis is on the overall function of the sub-units, i.e. "engine cylinder head, tone dialling detector, method for controlling the current and voltage for arc welding", rather than the complete unit that contains the sub-unit: the four-stroke engine, the telephone and the welding process. This may cause a lack of clarity as to whether the protection requested is limited to the sub-unit itself, or if the unit as a whole must be protected.

3.71 In the interests of clarity, claims of this type must be directed either to "a unit with, or including, a sub-unit, i.e. "four-stroke engine with a cylinder head", or a sub-unit in its own right, specifying its purpose, "cylinder head for a four-stroke engine".

3.72 In claims of the type shown in example (iv), the use of the word "in" does not make it clear if protection is requested only for the improvement, or for all the characteristics defined in the claim. Here too, it is vital to guarantee that the text is clear. However, claims such as "Use of substance X characterised by being composed of paint or varnish" are acceptable on the basis of a second use.

Claims for use

3.73 For the purposes of examination, a claim for "use" in the form of "use of substance X as an insecticide" must be considered to be equivalent to a claim for a "process", as "a process for killing

insects using substance X" or even "use of alloy X to manufacture a certain part". Thus, a claim in the form shown must not be interpreted as relating to substance X, which is known, but as relating to the use defined, i.e. as an insecticide, or for manufacturing a certain part. However, a claim relating to use of a process is equivalent to a claim covering the process itself.

3.74 Independent claims of the type "Product characterised by use", where the product is known to the state of the art, are not accepted due to lack of novelty. In cases where a product is not known to the state of the art, this type of claim formulation is not accepted due to lack of clarity, as per article 25 of LPI, as the product must be defined in terms of its technical characteristics (see 3.10).

3.75 In the area of pharmaceuticals, claims involving the use of chemical-pharmaceutical products for treatment of a new disease use a format conventionally known as the Swiss formula:
"Use of a compound with formula X, characterised by being for preparation of a medicine for treating illness Y".

3.76 Please note that this type of claim confers protection on the use, but it does not confer protection on the method of therapy, which is not considered an invention, as per item VIII of article 10 of LPI. Claims of the type "Use for treatment", "Process/method for treatment", "Administering for treatment" or equivalent are claims for a method of therapy, and therefore they are not considered inventions as per item VIII of article 10 of LPI.

References to the specifications or drawings

3.77 Claims must not make references to the specifications or drawings in relation to the technical characteristics of the invention, such as "as described in part... ..of the specifications", or "as illustrated in Figure 2 of the drawings".

References

3.78 If the application contains drawings, the technical characteristics defined in the claims must be accompanied by the relevant references in the drawings (in brackets) if this is considered necessary for understanding the application. It should be understood that these references do not limit the claims. If

there is a large number of alternatives for the same characteristics, only the references required for understanding the claim must be included.

3.79 The references, numbers and/or letters must be inserted not only in the section describing characteristics, but also in the preamble to the claims, as they precisely identify the elements referred to in the drawings.

3.80 Text associated with the references in the claims is not admitted in brackets. Expressions such as "means of fastening (screw 13, nail 14)" or "valve set (valve seat 23, valve element 27, valve seat 28)" are special characteristics, to which the concept of references is not applicable. Therefore it is not clear whether characteristics added to the references are limiting or not. In this respect, the correct way to mention items would be, for example: "the hose (4) is connected to the valve (10)", rather than "the hose is connected to the valve" or "4 is connected to 10".

3.81 A lack of clarity can also be caused by expressions in brackets that do not include references, i.e. "(concrete) moulded brick". On the other hand, expressions in brackets with a generally accepted meaning are admissible, as in the case of "(meth)acrylate", which is a well-known form that includes acrylate and methacrylate. Use of brackets is also admissible in chemical or mathematical formulas.

3.82 However, the opposite may be permitted, i.e. drawings may have more references than those included in the framework of claims.

Negative limitations

3.83 Each claim must define the technical characteristics to be protected by the claim clearly and precisely, in a positive way, avoiding expressions that cause vagueness in the claim.

3.84 However, negative limitations may be used only if the addition of positive characteristics in the claim does not define the object of protection, or if this addition unduly limits the scope of the application.

Example 1: Process for production of expandable polystyrene in the form of beads (EPS) using polymerisation of styrene in aqueous suspension in the presence of suspension stabilisers and

polymerisation initiators that are soluble in conventional styrenes... characterised by the fact that the polymerisation is carried out without a chain transfer agent.

Example 2: Compound with formula 1, characterised by R1 being a halogen, unless R1 is chlorine.

Basis in the specifications - article 25 of LPI

General remarks

3.85 Article 25 of LPI establishes that claims must be grounded on the specifications, which characterise the specific features of the application and clearly and precisely define the subject matter that is the object of protection. This means that the specifications must contain a basis for the subject matter that is the object of each claim; also the scope of the claims must not be broader than the contents of the specifications and drawings, if there are any, and must be based on their contribution to the state of the art.

Degree of generalisation in a claim

3.86 The correct formulation for a claim must meet the condition for accuracy in article 25 of LPI. Most claims are generalisations of one or more particular examples. The degree of generalisation permitted is a question that the examiner must analyse in each case, in the light of the relevant state of the art.

3.87 An invention that opens up an entire new field has a right to make more general statements in its claim than is another that refers to advances in a known technology.

Objections to lack of basis

3.88 A generic claim, i.e. relating to an entire class, as in the case of materials or machines, may be permitted, even if it has a broad scope, if a basis is provided in the specifications. If the information provided appears insufficient to the extent that it would not enable a technician in the field to implement the subject matter claimed using routine methods of experimentation or analysis, the examiner must raise an objection requiring the applicant to present arguments to prove that the invention can indeed be applied expeditiously on the basis of the information provided in the specifications or, if such arguments are not presented, to restrict the claim in this respect.

3.89 If the examiner has established that a broad claim is not supported by the specifications, the onus is on the applicant to demonstrate the contrary. In this case, the examiner may rely on a published document as grounds for his/her reasoning.

3.90 The question of grounds is illustrated in the following examples:

Example 2: A claim refers to a process for handling all species of plant seedlings, subjecting them to a controlled cold shock, to produce specific results, although the process is applied to only one species of plant in the specifications. As it is well known that plants vary widely in their characteristics, there are fundamental reasons to believe that the process is not applicable to all plant seedlings. Unless the applicant can provide convincing evidence that the process is nonetheless generally applicable, he/she must restrict the framework of claims of the application to the plant species to which reference is made in the specifications. It is not sufficient to merely state that the process is applicable to all plant seedlings;

Example 2: A claim refers to a specific method for handling "synthetic resin moulds" to bring about certain changes in the physical characteristics of the resin. All the examples described relate to thermoplastic resins and the method appears to be inappropriate for thermofix resins. Unless the applicant can demonstrate that the method is nevertheless applicable to thermofix resins, he/she must restrict his/her claim to thermoplastic resins; and example ³: A claim refers to compositions of fuel oil that have a particular desired property. The specifications provide grounds for a way of obtaining fuel oil with this property, which is achieved thanks to the presence of specified quantities of a certain additive. No other way of obtaining fuel oils with the desired property is described in the specifications. The claim makes no mention of the additive. In this case the claim has not been fully substantiated by the specifications.

Lack of basis versus insufficient description

3.91 It should be noted that although an objection due to lack of basis is an objection under the terms of article 25 of LPI, as in the examples in 3.94, it can often also be considered to be an objection due to insufficient description of the invention under

the terms of article 24 of LPI (see 2.13). In this context, the objection lies in the fact that the application, as disclosed, is insufficient to allow a technician in the field to implement the "invention" throughout the field claimed, although it is sufficient for a more restricted "invention". Both conditions must be met to satisfy the principle that the text of a claim must be grounded on the specifications of the application.

3.92 Note that sufficient description must be verified in the specifications only, while article 25 refers to the substantiation of the framework of claims in the specifications.

Definition in terms of function

3.93 A claim may provide a broad definition of a characteristic in terms of its function, i.e. as a functional characteristic, even if just one example of the characteristic has been given in the specifications, if the technician in the field considers that other means could be used for the same function (see also 3.10 and 3.53).

3.94 The expression "means of detecting terminal position" in a claim may be based on a single example featuring a limit switch, as it is clear to a technician in the field that a photoelectric cell or an extensometer could also be used.

3.95 However, if all the content of the application gives the impression that a function should be carried out in a particular way without any indication that there are alternative means, and a claim is formulated in such a way as to cover other means or all means for carrying out the function, then this claim is not admissible. In this case, the specifications do not support the framework of claims if they merely state in vague terms that other means could be used without clearly stating which means these could be or how they could be used, thus violating article 25. In this case, the claim would need to be reformulated to restrict it.

Subject matter contained in the framework of claims that is not mentioned in the specifications

3.96 If certain subject matter that is the object of protection is clearly disclosed in a claim in the application as filed, but is not mentioned in any part of the specifications, this subject matter may be included in the specifications, provided that the contents

of this subject matter comply with article 24 of LPI.

3.97 In the opposite situation, i.e. where subject matter contained in the specifications is not claimed before the application is examined, it may not be claimed, except if the framework of claims is restricted.

Invention unity - article 22 of LPI

General considerations

3.98 The patent application must refer to a single invention or a cluster of interrelated inventions that include a single inventive concept. If a patent application refers to a cluster of interrelated inventions that include a single inventive concept, this may give rise to a plurality of independent claims in the same category, provided that they have different sets of alternative characteristics that are essential for implementation of the invention (see 3.21).

3.99 A single inventive concept or an invention unit means that several claimed inventions are mutually related in technical terms due to one or more special technical characteristics that are the same or similar for all the inventions claimed.

3.100 The expression "special technical characteristics" refers to technical characteristics that represent a contribution made by the claimed invention to the state of the art, interpreted on the basis of the specifications and the drawings, if there are any. These characteristics should also be common to or correlate with each of the inventions claimed. Once the special technical characteristics have been identified for each of the inventions, it is necessary to determine whether or not there is a technical relationship between the inventions due to these special technical characteristics.

3.101 Please note that during initial analysis, invention unity must be considered along with the independent claims of the patent application.

3.102 If there is a lack of novelty or invention in an independent claim, the other dependent claims must not only be analysed in terms

of their merit, but also in terms of whether there is a common inventive concept (also see 3.135).

3.103 If the application does not show invention unity, the examiner must present an objection on the basis of article 22 of LPI.

Special technical characteristics

3.104 The interrelationship between inventions required by article 22 of LPI must be a technical relationship that is expressed in the claims in terms of the same or corresponding special technical characteristics. In any claim, the expression "special technical characteristics" means one or more technical characteristics that represent(s) a contribution made by the claimed invention to the state of the art, interpreted on the basis of the specifications and the drawings, if there are any. These characteristics should also be common to, or correlate with, each of the inventions claimed. Once the specific technical features of each invention have been identified, it is necessary to determine whether or not there is a technical relationship between the inventions, and whether or not this relationship involves these special technical characteristics. It is not necessary for the special technical characteristics in each invention to be the same. The required interrelationship may be found among the corresponding special technical characteristics. Example: In a given claim, the special technical characteristic that provides resilience is a metal spring, while in another claim it is a block of rubber.

3.105 If there are interrelated elements, these must be specially adapted to each other. If these elements have various other applications and the relationship cited represents just one of several possible ones, this is not considered to constitute the necessary interrelationship for there to be invention unity.

Example: A claim relating to non-slip artificial turf is presented together with another that deals with a football produced from material that is particularly appropriate for this turf, but which can also be used with other types of turf. In this case, it is found that there is no invention unity, although the ball performs better on the turf mentioned.

3.106 A plurality of independent claims in different categories may constitute a cluster of mutually interrelated inventions in such a

way as to form a unique inventive concept. The following combinations of claims in different categories are permitted within the same application, as per the following examples:

Example 1: an independent claim for a given product, an independent claim for a process that is specially adapted to production of this product, and an independent claim for a use of said product; or

Example 2: An independent claim for a given process and an independent claim for a device or means specifically designed to carry out said process; or

Example 3: an independent claim for a given product, an independent claim for a process that is specially adapted to production of this product, and an independent claim for a device or means specifically designed for carrying out this process.

3.107 In a claim of the type indicated in example (i), the process is specially adapted to the production of the product if the process creates the product claimed, i.e. if the process is indeed appropriate for producing the product claimed and there is therefore a special technical characteristic shared between the claimed product and process. A manufacturing process and the product it creates cannot be considered to be lacking invention unity simply because the manufacturing process is not limited to making the claimed product.

3.108 In a claim of the type shown in example (ii), the device or means is specifically designed for carrying out the process if the device or means is appropriate for carrying out the process and there is thus a special technical characteristic shared by the device or means claimed and the process claimed.

On the other hand, it is irrelevant whether the device or means could or could not also be used to carry out another process or whether the process could also be carried out using an alternative device or means.

3.109 There may be invention unity in an application that makes claims in one or more different technical fields provided that there is a common or corresponding "special technical characteristic" shared by these claims. Example: An application presents an independent claim relating to polymer G, and another independent claim relating to an artificial turf consisting of polymer G, which is used in football pitches. In this case, although the technical

fields are different, there is an invention unit in the application, as polymer G is the common "special technical characteristic" shared by these claims.

3.110 An application can only contain more than one independent claim in the same category if the subject matter that is the object of protection involves one of the two following cases:

- (i) a plurality of interrelated products;
- (ii) different used for a product or equipment; or
- (iii) different sets of alternative characteristics that are essential for implementing the invention, and that are linked by the same inventive concept.

3.111 It is also essential that a single general inventive concept links the claims in different categories. The presence of expressions such as "specially adapted" or "specifically designed" in each claim does not necessarily imply that there is a general unique inventive concept.

A priori or a posteriori lack of invention unity

3.112 The lack of invention unity can be proved directly a priori, i.e. considering the claims without carrying out a search for prior art, or it may only be perceptible a posteriori, i.e. after taking into account the state of the art, consisting of the documents that may be presented in the application or those that emerge from the search that is carried out.

3.113 In an a posteriori analysis of invention unity, if one or more documents in the state of the art relating to the invention show(s) that the special technical characteristic is known, the independent claims must be analysed regarding the existence of another common special technical characteristic between them (see also 3.135 with reference to dependent claims).

3.114 A processing flowchart regarding analysis of invention unity is presented in Appendix I of these guidelines.

3.115 If it has been found a priori that there is a lack of invention unity, the examiner must report this in an acknowledgement of technical opinion, which will include considerations to identify clearly and precisely the different invention units in the

application, or interlinked and unified clusters of inventions, making the applicant aware of the need to exclude the claims that fall outside the invention unit, and/or to divide the application on the basis of article 22 of LPI [point (i) in the flowchart]. In this case, the search report and the technical opinion must be issued on the basis of the first invention unit claimed. The examiner must wait for a response from the applicant, after which he/she may:

- (i) refuse the application due to a lack of invention unity, because the applicant has not provided technical grounds to prove there is invention unity in the unmodified application; or
- (ii) continue with the examination of the application if the applicant presents convincing arguments that there is invention unity, or the framework of claims has been restricted to a single inventive concept.

3.116 If it is found a priori that there is inventive unity, as the special technical characteristic shared by the claims has been identified, the examiner must proceed with the search for this characteristic among the independent claims [point (ii) in the flowchart]. If this characteristic is not known to the state of the art, the application shows invention unity a posteriori, and the examiner should carry out a search for the entire framework of claims [point (iii) in the flowchart], then proceed to examine the merit of the application [point (iv) in the flowchart]. If this characteristic is known to the state of the art, the examiner must evaluate whether the search carried out was sufficient to include all the material claimed in the framework of claims [point (v) in the flowchart]. If this is the case, the examiner must proceed to examine the merit of the application [point (iv) in the flowchart]. If this is not the case, the application does not show invention unity a posteriori, and the examiner must inform the applicant on the basis of article 22 of LPI [point (vi) in the flowchart] and present the search report, proceeding with the search in the same manner as in the case of an a priori lack of invention unity [point (i) in the flowchart].

3.117 The lack of invention unity should not be lifted or sustained on the basis of a rigorous interpretation. This applies particularly in cases where the examiner observes that the additional effort required for the application search is reduced (see point (iv) in

the flowchart in Appendix I).

3.118 If an application presents various classifications regarding its independent claims, this does not necessarily indicate that there is no invention unity. There must be a practical and wide-ranging consideration of the level of interdependence of the inventions presented, in relation to the state of the art revealed by the search report.

Intermediate and final products

3.119 Invention unity must be considered to be present in the context of intermediate and final products if:

(i) the intermediate and final products have the same essential structural elements, i.e. their basic chemical structures are the same or their chemical structures are closely technically interrelated, and the intermediate product incorporates an essential structural element of the final product; and

(ii) the intermediate and final products are technically interrelated, i.e. the final product is produced directly from the intermediate product or it is separated from it by a small number of intermediate products, all of which contain the same essential structural element.

3.120 There may also be invention unity in intermediate and final products with unknown structures, for example in an intermediate product that has a known structure and a final product with an unknown structure, or in an intermediate product with an unknown structure and a final product with an unknown structure. In these cases, to meet the invention unity criterion, there must be sufficient proof to draw the conclusion that the intermediate and final product are closely technically inter-related, for example if the intermediate product contains the same essential element as the final product or incorporates an essential element in the final product.

3.121 Different intermediate products used in different processes for preparation of the final product may be claimed, provided that they have the same essential structural element. In the process that converts the intermediate product into the final product there must not be an intermediate product that is not new, constituting a special technical characteristic implying invention unity between

the intermediate and final products. If different intermediate products are claimed for the different structural parts of the final product, there is no unity with the intermediate parts. If the intermediate and final products are families of compounds, each intermediate compound must correspond to a compound claimed in the family of final products. However, some of the final products may not have a corresponding compound in the family of intermediate products, so the two families do not need to be absolutely congruent.

3.122 The mere fact that the intermediate products also present possible effects or properties other than the capacity to be used to produce the final products does not undermine invention unity.

3.123 The following examples are illustrations of intermediate products:

Example 1: Claim 1: A new compound has structure A - intermediate compound

Claim 2: A product prepared by a reaction between the intermediate compound of structure A and a compound X - final product

Example 2: Claim 1: The product of the reaction between A and B - intermediate product;

Claim 2: A product prepared by a reaction between the intermediate compound of structures X and Y - final product.

3.124 In the types shown in examples 1 and 2, the chemical structures of the intermediate products and/or the final product are known. In example 1, the structure of the product in claim 2—the final product—is not known. In example 2, the structures of the products in claim 1—the intermediate product—and claim 2—final product—are not known.

3.125 There is invention unity if there is proof that the characteristic of the final product that is the inventive characteristic depends on the characteristics of the intermediate product. If the aim of using the intermediate products of the types indicated in examples 1 and 2 is to modify certain properties of the final product, this must be proven by the data presented in the specifications, showing the effect of the intermediate product on the final product. If there is no such proof, then there is no invention unity on the basis of the relationship between the intermediate product and the final product.

Alternatives - "Markush groups"

3.126 If the Markush group contains alternatives to chemical compounds, these will be considered to be similar in nature, provided that the following criteria are met:

(i) all the alternatives have a property or activity in common; and
(iii) there is a common structure, i.e., a significant structural element is shared by all the alternatives or, in cases where the common structure cannot be the criterion for invention unity, all the alternatives belong to a recognised class of chemical compounds in the state of the art for the invention.

3.127 Verification of whether a cluster of inventions is inter-linked in such a way as to form a general inventive concept must be carried out independently if the inventions are claimed in separate claims or in the form of alternatives contained within a single claim.

3.128 Alternative forms of an invention may be claimed either in a plurality of independent claims, as shown in 3.108, or in a single claim. An independent or dependent claim may refer to alternatives, provided that the number of alternatives and the way they are presented in a single claim do not make the claim obscure or difficult to understand, and provided that the claim shows invention unity; for example, an engine characterised by gears A produced from material X or Y or Z. In the case of a single claim, it may not be immediately evident that there are alternatives as independent forms. However, in both cases, the same criteria must be applied to decide if there is invention unity or not, and there may then be a lack of invention unity even within a single claim.

Individual characteristics in a claim

3.129 There is invention unity in a claim that consists of a combination of individual characteristics, where these characteristics are technically interrelated.

3.130 In cases where there is no such technical interrelation, and there is merely juxtaposition of elements, one should not allege a lack of invention unity.

Dependent claims

3.131 No a priori objection due to a lack of invention unity can be justified in relation to a dependent claim on the basis of the general concept that what they have in common is the object of the independent claim, which is also contained in the dependent claim. Example: Suppose that claim 1 claims a turbine rotor blade of a specified shape, while claim 2 is a "turbine rotor blade as claimed in claim 1 and made of alloy Z". The special technical characteristic linking the dependent claim with the independent claim is the "turbine rotor blade made in a specific way".

3.132 If an independent claim is not patentable, the invention unity with its dependent claims must be carefully considered. One must evaluate carefully whether the other remaining claims present "special technical characteristics" in such a way as to provide invention unity for the framework of claims.

Analysis of divided applications

3.133 For the purposes of article 26 of LPI, the "original application" is considered to be the first application filed, and it can be divided only up until the final examination in the first instance. Division of applications that have already been divided will not be accepted.

3.134 In analysis of claims, the question of the requirements for patentability, violation of article 32 of LPI with an increase in the scope claimed in the original application, and double protection is subject matter that must be examined during the substantive examination, i.e. after notification of the divided application has been received under the status code 2.4 published in the RPI.

3.135 In addition, during the substantive examination of a divided application, with notification under status code 2.4 published in the RPI, the examiner must analyse item II of article 26 of LPI, verifying if the subject matter of the divided application exceeds what was disclosed in the original application. If this criterion is satisfied, the examination proceeds. Otherwise, the divided application will be shelved, by publication under status code 11.12 of the RPI, noting the reasons for shelving. If the subject matter of the application exceeds the subject matter revealed in the original application, the examiner must indicate one or more

sections where the increase in subject matter was noted.

3.136 As foreseen in the Normative Instruction in force, "the patent application may be divided into two or more until the end of the examination:

a) at the request of the applicant, even if the application includes a cluster of inter-related inventions with the same inventive concept;

b) in anticipation of the acknowledgement of opinion, if the technical examination reveals that the application contains a cluster of inventions that includes more than one inventive concept, or more than one utility model".

3.137 If a divided application was generated from subject matter that has already been examined, and which has not proved patentable, this should be refused, as the same objections relating to its merit persist.

Invention unity and double protection

3.138 The procedure for dividing a patent application must consist of removal of part of the claimed subject matter that figures in the original application to make up the divided application(s). Simply reproducing part of the claimed subject matter in the original application to produce a divided application is, in fact, multiplication of an application and not division.

3.139 In the substantive examination of a divided application, if there is an increase in the claimed scope in comparison to the original application, the examiner must issue an acknowledgement of opinion on the basis of article 32 of LPI, as the changes to the framework of claims are restricted until the time of the examination request for the original application.

3.140 The Normative Instruction that is in force establishes that the division of application cannot imply double protection for the invention or utility model. Article 6 of LPI establishes that the author of the invention or utility model will be assured the right to obtain the patent guaranteeing ownership. For the purposes of understanding this article, two patents cannot be granted for the same invention or utility model.

3.141 Analysis must be carried out to see if there is double protection in a divided application, by comparing its framework of claims with the framework in the original application and with the frameworks of the other divided applications, if there are any. In this case, the divided application must be rejected as it does not comply with the provisions of article 6 of LPI.

3.142 If a divided application claims more specific subject matter than the original application from which it stems, when this divided application undergoes the technical examination it should be rejected as it does not comply with the provisions of article 6 of LPI, as it leads to double protection, bearing in mind that the broader subject matter claimed in the original application already covers the detail claimed in the divided application.

3.143 A claim that is considered to be an alternative implementation of the invention, claimed in the framework of claims of the original application, may be withdrawn from the original application and claimed in a divided application at the applicant's discretion, even if this claim is within the inventive concept of the same claim in the original application.

Chapter IV DRAWINGS

4.01 If there are drawings, these must be related to the specifications, specifying what they graphically represent, such as views, items, perspectives and electrical circuit diagrams. If the specifications cite an element from the drawing(s), the element must be accompanied by its reference, such as "the hose (4) is connected to the valve (10)".

4.02 Please note that the terminology and the symbols must be uniform throughout the application.

4.03 If the drawings presented are not of sufficient quality for visualisation, the examiner must issue an official grounded action, on the basis of article 24 of LPI, and taking into account article 32 of LPI.

4.04 The drawings should preferably comply with the provisions of Brazilian regulations regarding technical drawing. The examiner may issue an official grounded action on this issue, for example, in case of hand-written drawings.

4.05 Presentation of reproductions of photographs, such as metallographic structures or three-dimensional images generated by electronic software, will be accepted provided that these reproductions are clear and they allow improved understanding of the invention.

4.06 Colour photographs or colour drawings will be accepted only if this is the only possible way to represent the object of the application graphically. If the photographs presented are not of sufficient quality for visualisation, the examiner must not issue an official grounded action for higher quality photographs to be presented, due to the risk of addition of subject matter. The material initially presented must be accepted for the examination.

Chapter V THE ABSTRACT

5.01 As many databases consulted use only abstracts and titles, the abstract must contain key words for easy recovery. This is due to the need for correct public disclosure of the technology covered by the invention.

5.02 Even taking into account the user using the contents of the abstract to decide whether to consult the entire document, it must be a concise description that contains an indication of the technical field of the invention, a technical explanation of the invention itself, and possibly its main application.