

Learning path for patent examiners

**Novelty:
Entry level**

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Introduction

This publication, "Novelty, Entry level", is part of the "Learning path for patent examiners" series edited and published by the European Patent Academy. The series is intended for patent examiners at national patent offices who are taking part in training organised by the European Patent Office (EPO). It is also freely available to the public for independent learning.

Topics covered include novelty, inventive step, clarity, unity of invention, sufficiency of disclosure, amendments and search. Also addressed are patenting issues specific to certain technical fields:

- patentability exceptions and exclusions in biotechnology
- assessment of novelty, inventive step, clarity, sufficiency of disclosure and unity of invention for chemical inventions
- the patentability of computer-implemented inventions, business methods, game rules, mathematics and its applications, presentations of information, graphical user interfaces and programs for computers
- claim formulation for computer-implemented inventions

Each publication focuses on one topic at entry, intermediate or advanced level. The explanations and examples are based on the European Patent Convention, the Guidelines for Examination in the EPO and selected decisions of the EPO's boards of appeal. References are made to the Patent Cooperation Treaty and its Regulations whenever appropriate.

The series will be revised annually to ensure it remains up to date.

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All references to natural persons are to be understood as applying to all genders.

Contents

| | | |
|-----|--|----|
| 1. | Learning objectives | 5 |
| 2. | The definition of novelty | 5 |
| 3. | The definition of the state of the art | 5 |
| 4. | The definition of the public | 6 |
| 5. | The filing date of an application | 7 |
| 6. | Internet disclosures | 9 |
| 7. | Prior use | 9 |
| 8. | An invention is defined by the claims | 10 |
| 9. | Scope of protection and technical features | 12 |
| 10. | Interpreting "for" as "suitable for" | 12 |
| 11. | Comparing the claims with the prior art | 13 |
| 12. | Overview | 14 |
| 13. | Implicit scope limitation | 15 |
| 14. | Comparing equivalents; specific vs generic | 15 |

Legal references

| | |
|--|----|
| Art. 52(1) EPC, Art. 54 EPC | 5 |
| Art. 54(2) EPC, GL B-VI, 2, GL G-IV, 1, GL G-IV, 7.2 | 6 |
| Art. 54(2) EPC, GL G-IV, 7.2 | 7 |
| Art. 52(1) EPC, Art. 54(2) EPC, GL G-IV, 3 | 8 |
| Art. 54(1) EPC, Art. 54 EPC, GL G-IV, 7.5 | 9 |
| Art. 52(1) EPC, Art. 54 EPC, GL G-IV, 7.1 | 10 |
| Art. 84 EPC, R. 43 EPC, GL F-IV, 2.1 | 11 |
| GL F-IV, 4.2 | 12 |
| R. 43(1) EPC, GL F-IV, 4.13.1, GL F-IV, 4.13.3 | 13 |

| | |
|--|----|
| Art. 54(1) EPC, GL G-VI, 1, GL G-IV, 8 | 14 |
| Art. 54(1) EPC, GL G-VI, 1, GL G-IV, 8 | 15 |
| GL F-IV, 4.13.1, GL F-IV, 4.5.4 | 15 |
| GL G-VI, 2, GL G-VI, 4 | 15 |

1. Learning objectives

Participants to this course will learn:

- The definition and the legal basis (EPC) of novelty
- The definition and the legal basis (EPC) of the state of the art
- The importance of claims in a patent application and their central role in the assessment of novelty
- The principle of the methodology for assessing the novelty of a claim

2. The definition of novelty

Article 52(1) EPC defines novelty as one of the patentability criteria:

"European patents shall be granted for any inventions, in all fields of technology, provided that they are new, involve an inventive step and are susceptible of industrial application."

It is therefore essential to properly establish the novelty of an invention at the substantive examination stage. The novelty assessment is also essential for subsequent proceedings such as oppositions or appeals or before national courts.

Article 54(1) EPC defines novelty in relation to the concept of state of the art:

"An invention shall be considered to be new if it does not form part of the state of the art".

We will therefore address the following questions first:

- What is the state of the art? Who is the public?
- What is the application's filing date?
- How is an invention compared with the state of the art?

In the following, "state of the art" and "prior art" will be used interchangeably.

Legal references:

Art. 52(1) EPC, Art. 54 EPC

3. The definition of the state of the art

Under Article 54(2) EPC, the state of the art is *"everything made available to the public, by means of a written or oral description, by use, or in any other way, before the date of filing of the European patent application"*.

Patent publications, scientific journals, technical manuals, etc. are clearly part of the state of the art.

Furthermore, any disclosures such as oral presentations at public conferences, internet publications, uses and displays of material, and equipment available to the public before the application's filing date are part of the state of the art.

More particularly, "everything made available" means everything that the public has had access to anywhere in the world through:

- written descriptions: a disclosure written in any language, in any number of copies, reproduced in any manner
- oral descriptions: facts unconditionally made available to the public, e.g. during a conversation, a lecture or by means of radio, television or sound reproduction equipment (see e.g. Guidelines for Examination in the EPO, B-VI.2 for details on oral disclosure)
- use: producing, offering, marketing or otherwise exploiting a product, offering or marketing a process or its application, or applying the process (Guidelines G-IV.7.2)
- any other way: all other possible ways of disclosing information, for example internet disclosures (as discussed later).

It is to be noted that "*There are no restrictions whatever as to the geographical location where or the language or manner in which the relevant information was made available to the public*" (Guidelines G-IV, 1).

Legal references:

Art. 54(2) EPC, GL B-VI. 2, GL G-IV. 1, GL G-IV. 7.2

4. The definition of the public

The public includes anyone not bound by confidentiality with the applicant.

The inventor obviously cannot be part of the public, but what if the inventor has disclosed the invention to their employer or to a member of their family? Is that enough for the invention to be in the public domain?

The key idea here is confidentiality:

- If the disclosure is subject to a confidentiality agreement, it is not available to the public.
- If there is no condition of confidentiality, then the public is regarded as having had access.

Some people are not part of the public even if they are not bound by a non-disclosure agreement. These people include patent attorneys approached to write the patent application, and individuals operating in a profession in which confidentiality is assumed as part of the professional code of conduct, such as attorneys, doctors or financial consultants.

In some cases, determining who has access to certain information is not straightforward.

For example, patients who participate in clinical trials are usually not bound to secrecy as they are allowed to discuss details of their treatment with family members or with their family doctor. They are not implicitly and automatically bound by confidentiality but may – and should – be able to discuss their treatment with their family, family doctor, etc. These people, however, are not automatically considered part of the public.

It is generally agreed that not all the details of the drug trial (specificities of the drug for example) need to be disclosed to the participants. Therefore, those details are not considered publicly available.

Legal references:

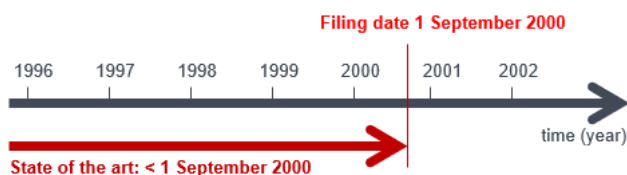
Art. 54(2) EPC, GL G-IV, 7.2

5. The filing date of an application

A patent application's filing date is the date on which an application is filed at a patent office and the patent office issues a confirmation that the application has been filed.

The state of the art is everything that is made available to the public (as outlined above) **no later than one day before the date of filing**.

The state of the art is thus dependent on the specific application and different applications generally have different state of the art.



If the application validly claims a **priority**, then the state of the art is considered to be everything available to the public up to the day before the priority date (see Guidelines G-IV, 3).

It is possible that an application claims a priority but its content extends beyond that of the priority document. This happens, for example, if the application contains features that are not present in the priority document.


In that case, the priority claim is only valid for the content that is disclosed in the priority document.

An application may also claim multiple priorities. In these cases, there are multiple dates from which the prior art must be determined for the same application and for each aspect of the application. An assessment must be made regarding the relevant priority date (see examples).

Examples

Example 1: a single priority

Would the following document be part of the state of the art for an application filed on 9 June 2020 and claiming a priority from 11 June 2019?

| | | | | |
|--|--|--|--|---|
|  Innovation, Sciences et Développement économique Canada Office de la Propriété Intellectuelle du Canada | | Innovation, Science and Economic Development Canada Canadian Intellectual Property Office | | CA 3065815 A1 2018/12/13 (21) 3 065 815 |
| (12) DEMANDE DE BREVET CANADIEN CANADIAN PATENT APPLICATION (13) A1 | | | | |
| (86) Date de dépôt PCT/PCT Filing Date: 2018/05/09 (87) Date publication PCT/PCT Publication Date: 2018/12/13 (85) Entrée phase nationale/National Entry: 2019/11/29 (86) N° demande PCT/PCT Application No.: US 2018/031882 (87) N° publication PCT/PCT Publication No.: 2018/226346 (30) Priorité/Priority: 2017/06/07 (US15/616,718) | | (51) Cl.Int./Int.Cl. <i>H02J 7/00</i> (2006.01), <i>H02J 7/02</i> (2016.01) (71) Demandeur/Applicant: MOTOROLA SOLUTIONS, INC., US (72) Inventeurs/Inventors: WEISSINGER, FREDERICK J., US; BAKER, RYAN, US (74) Agent: PERRY + CURRIER | | |

The application was filed on 9 June 2020 but claims priority from 11 June 2019. The prior art is everything made available to the public up to 10 June 2019.

Hence, the Canadian patent application published on 13 December 2018 is part of the prior art for the patent application and will be taken into consideration when assessing novelty.

Example 2: partial priority and multiple priorities

A patent application filed on 12 June 2020 has the following claim:

Claim 1: "A fork with three prongs made of copper, steel or lead."

The application thus claims three different forks:

- 1) a fork with three prongs made of copper
- 2) a fork with three prongs made of steel
- 3) a fork with three prongs made of lead

The application claims a valid priority from an earlier application filed on 12 June 2019, which only discloses the same fork made of steel.

The prior art for this application varies for each of the three claimed forks:

- For the fork made of steel, the priority is validly claimed, so the prior art must be counted from one day before the priority date (one day before 12 June 2019).
- For the forks made of copper or lead, the priority is not validly claimed, so the filing date (12 June 2020) is the decisive date for considering the prior art.

As such, different dates can apply to different aspects even within the same claim.

Furthermore, an application might claim multiple priorities. In the above case, for instance, the application might claim a priority from 12 June 2019 for the fork made of steel and a later priority, e.g. 12 September 2019, for the fork made of lead. In this case, the prior art for the lead fork is up to 11 September 2019.

Legal references:

Art. 52(1) EPC, Art. 54(2) EPC, GL G-IV, 3

6. Internet disclosures

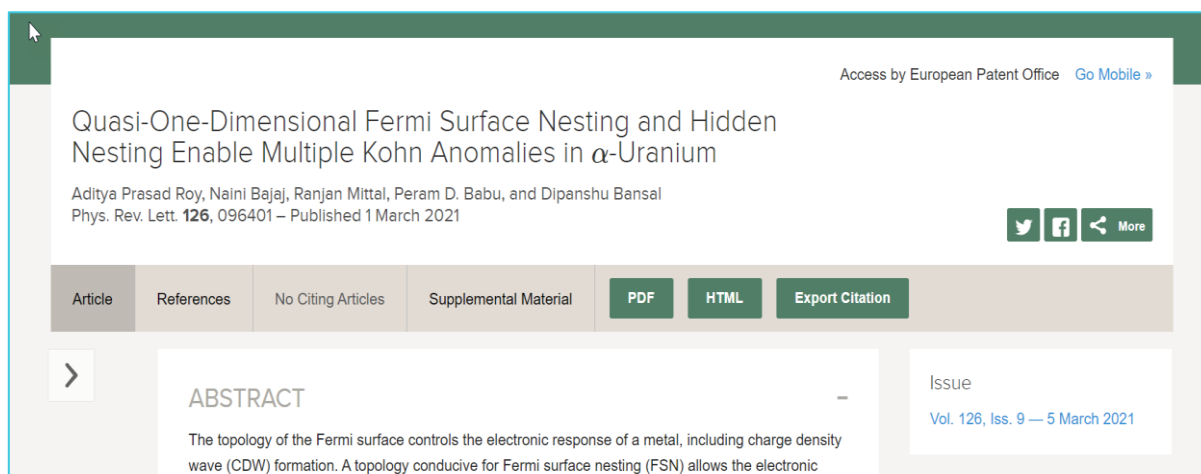
Internet publications are increasingly important since the majority of technical and scientific disclosures potentially relevant to patent applications are made available exclusively online. Hence, it is crucial to access any such publications.

Internet publications published before an application's filing (or priority) date are by definition part of the state of the art. However, the effective date of internet publications is not always clearly accessible.

Good practice entails ascertaining the publication date of internet disclosures by making use of internet resources such as Wayback. The site www.archive.org contains further guidance.

Examples

The following article is published online on 1 March 2021. Can it be considered as state of the art for any applications? If yes, for which applications?



It is state of the art for applications with a filing date (or priority date) from 2 March 2021. In this case, the document cites a date of publication, so it is straightforward to determine when it was made available to the public. Its content is part of the prior art from that day onwards. Of course, the applicant can challenge this conclusion.

Legal references:

[Art. 54\(1\) EPC](#), [Art. 54 EPC](#), [GL G-IV, 7.5](#)

7. Prior use

The state of the art also encompasses what is called "prior use", i.e. the use or display of a product or process.

For example, a device that has been demonstrated or even just presented at a fair before the filing date is part of the state of the art. Likewise, a device that was part of a commercially available product before the filing date belongs to the state of the art.

If a member of the public had any kind of access to a certain piece of information on a given date, because the information was disclosed in a certain context, then it is considered part of the state of the art from the day on which it became accessible.

Examples

Example 1: a simple case

An application claims "A new wing mirror for a vehicle".

A vehicle with the same wing mirror was used as a demonstrator vehicle six months before the filing/priority date. In this case, a general member of the public could have seen the wing mirror before the application was filed, so it is considered to be part of the prior art for the application.

In such a case, when assessing novelty, it is crucial to take into account which information was accessible to a general member of the public. It is most probable that the public could see the outside structure of the wing mirror but not its inner structure. Thus, the inner structure could not be considered as disclosed to the public.

Example 2: a more complex case

In a real-life case relating to a clinical trial involving contraceptives, the participants in the trial, who were not bound by confidentiality, were given the medicaments for administration at home. As some of these drugs were not given back at the end of the trial, they were considered publicly available and therefore to reveal the invention. A skilled person would have been able to analyse the product without undue burden.

This kind of public prior use could have been avoided if the trial participants had been required to return any unused material at the end of the trial.

Legal references:

[Art. 52\(1\) EPC](#), [Art. 54 EPC](#), [GL G-IV, 7.1](#)

8. An invention is defined by the claims

Now that we have learned what the state of the art is, we need to understand how an invention is defined in order to be able to compare it with the state of the art and assess its novelty.

The **claims** delimit the desired scope of protection, which is the exclusive right granted to the patent proprietor. The proprietor can forbid everyone from commercially exploiting its invention as defined by the claims.

The **subject-matter** for which protection is sought can be a product, a method or a use.

The invention is defined by claims drafted in terms of the **technical features**.

A claimed device "made of metal" has at least one technical feature, i.e. it is made of metal.

The Guidelines (F-IV, 2.1) explain the concept of technical features in detail. Interestingly, they also define what does not count as a technical feature, for example commercial advantages.

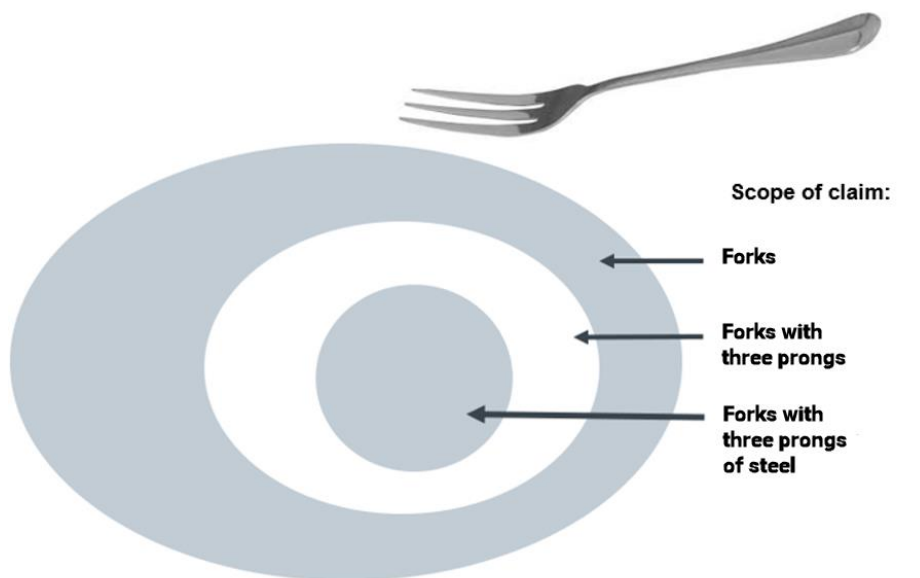
The assessment of the patentability criteria is thus founded on an exact reading and a precise understanding of the meaning of the claims.

Remember that the claims define the scope for which an exclusive right is sought – see the examples.

Examples

The patent application contains the following claim:

Claim 1: "A fork with three prongs made of steel."



The claims define the invention. In this case, the subject-matter is a fork with three prongs made of steel, so this is the scope for which protection is sought.

The technical features are:

- a fork
- a fork with three prongs
- a fork with three prongs made of steel

Each technical feature added to the claim narrows its scope and narrows the subject-matter for which protection is sought.

Legal references:

Art. 84 EPC, R. 43 EPC, GL F-IV, 2.1

9. Scope of protection and technical features

When reading a claim, the technical terms it contains should be given their standard meaning in the relevant art, unless specifically stated otherwise in the description of the patent application under examination (Guidelines F-IV, 4.2).

Furthermore, the meaning of a claim should be clear by itself since the scope of protection is defined exclusively by the claims. One reason for this clarity requirement is that only the claims of a granted European patent are published in all three official languages of the EPO, hence the importance of the language (wording) of the claims.

Examples

Claim: "A UV radiation screen comprising an opaque layer."

Normally, opaque means not transparent, i.e. an opaque layer is a layer that blocks **visible** light. However, in the context of this application the word opaque is specified to mean UV-opaque, which is quite different.

The description of the application states: "For the purpose of this patent application, referring to a screen for ultraviolet radiation, it is to be understood that the word 'opaque' means that the particular material to which the word refers is opaque to UV radiation."

In this case, the application gives a specific definition of "opaque". A prior-art document discloses a screen like the one recited in the application but with a layer that is opaque in the visible range, **not** in the UV range. Is the claim novel over the prior art?

The intended subject-matter is new, because it is opaque for the purpose of the specific application. The claim as drafted, however, does not reflect the intended special meaning of the term "opaque" and, therefore, can be considered not to be novel. If any such special meaning applies, the EPO will as far as possible require the claim to be amended so that the meaning is clear from the wording of the claim alone. In the case in question, the EPO will require the claim to be amended to recite UV-opaque.

Legal references:

GL F-IV, 4.2

10. Interpreting "for" as "suitable for"

Often, claims contain some wording that requires interpretation.

Typically, the term "**for**" comes up very frequently in claims and in the case of product or apparatus claims it is to be interpreted as meaning "**suitable for**" when determining the effective scope of the claims (Guidelines F-IV, 4.13.1).

For example, a claim directed to an "Apparatus for carrying out a process ..." must be construed as meaning an "Apparatus **suitable** for carrying out a process ...". Similar considerations apply to a claim aiming at a product or a particular use.

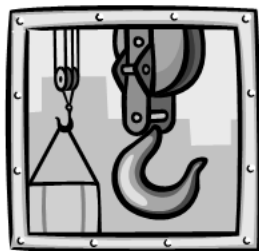
However, "for" implies certain **technical limitations** that need to be considered when interpreting a claim.

A claim that refers to a "Mould for molten steel" implies certain characteristics of the mould. Consequently, a plastic ice cube tray, which is a mould but with a melting point much lower than that of steel, is clearly not suitable for molten steel.

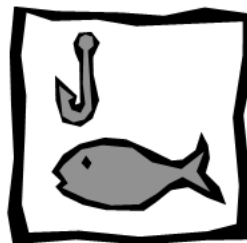
Examples

When examining a claim for novelty, look out for features which are claimed implicitly, i.e. features that are not stated directly but can be derived as a necessary consequence of what is stated.

▪ A hook for a **crane**



A hook for **fishing**



It is implicit in the very functional definition of each of the two hooks (for a crane and for fishing) that each of them has individual and specific differences, e.g. in respect of strength, size and weight.

Despite the shape of the hooks possibly being the same, they are so different in terms of structural and functional features that neither of them can oppose the other for the purpose of novelty.

To establish novelty, it is enough that the hook is "suitable for" the intended use, even if it is not specifically designed for that use.

Note that the term "for" is interpreted in a more limiting way in the case of method claims (Guidelines F-IV, 4.13.3).

Legal references:

R. 43(1) EPC, GL F-IV, 4.13.1, GL F-IV, 4.13.3

11. Comparing the claims with the prior art

At this point in the course, we have defined the state of the art and know what constitutes an invention as defined by the claims. We have also seen that claims often require interpretation and that prior art needs to be objectively assessed.

The standard way to assess novelty is to list all the technical features of a claim and see if the **same technical features** are disclosed, **as a whole**, in at least one document from the state of the art.

This requirement means, in particular, that when considering novelty, it is not permissible to combine separate items of the state of the art – all the features of the claims need to be contained in the same state of the art.

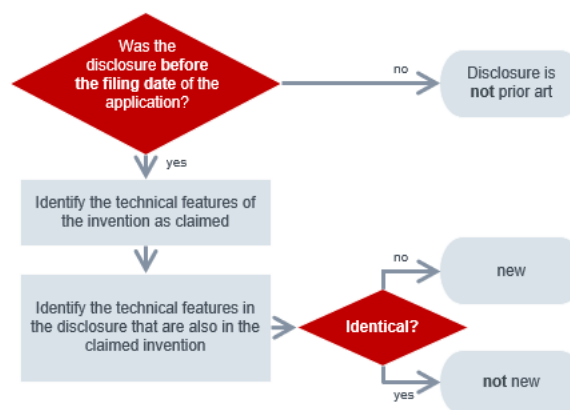
It is also not permissible to combine separate items belonging to different embodiments described in one item of the same state of the art unless the state of the art specifically discloses that combination.

Legal references:

Art. 54(1) EPC, GL G-VI, 1, GL G-IV, 8

12. Overview

Bringing together what we have seen so far, the assessment of novelty can be summarised as including the following two stages:



- **Stage 1:** ensure that the available disclosures are part of the state of the art as per Article 54(2) EPC: have they been made available before the application's publication/priority date?

If yes:

- **Stage 2:** assess whether *all* the technical features of the claim are disclosed by a *single* prior-art disclosure. If they are, the claimed subject-matter is not new.

In other words, if at least one source from the prior art discloses all the technical features of a claim, then the subject-matter of that claim is not novel.

Note that the lack of novelty of a claim needs to be raised on the basis of all available disclosures that anticipate all the technical features of the claim.

Bear in mind that:

- When examining novelty, it is important to remember that what is being examined is the invention as specified in the claims, not the embodiments set out in the description.
- Claims are normally generalisations worded such as to encompass much more than the examples presented in the description.

Therefore, the technical features of the claim must be construed in their broadest reasonable interpretation.

When assessing novelty, the comparison should ignore any differences in the objects of the inventions or any stated problems to be solved. It should merely focus on comparing the technical features of the claim(s) with the state of the art.

Legal references:

Art. 54(1) EPC, GL G-VI, 1, GL G-IV, 8

13. Implicit scope limitation

As discussed, the invention needs to be assessed as recited in the claims, and the same general principles apply when assessing the prior art.

The technical features of the prior art should be considered as they would normally be understood in the relevant art and at the effective date (filing or priority date) of the application.

Note that what a document implicitly describes is part of that document. For example, if a document describes a "component made of metal", this component is electrically or thermally conductive. A "component made of rubber" is not; it is, however, resilient.

Implicit features – they should be an intrinsic, unavoidable consequence of the nature of an element, product, method etc. For instance:

- Metal always implies some capacity for electrical conductivity, and rubber implies resilience.
- A bicycle comprises wheels (Guidelines F-IV, 4.5.4).

Legal references:

GL F-IV, 4.13.1, GL F-IV, 4.5.4

14. Comparing equivalents; specific vs generic

When assessing novelty, specific attention needs to be paid to the following:

- **Technical equivalents:** these are elements that have the same technical function but are different. They should not be considered the same for the purpose of assessing novelty. For example, a nail and a screw may have the same technical function but they are different. A nail is new when compared with a screw, and vice versa.
- **Specific vs generic:** two species belonging to the same genus do not deprive each other of novelty; they are also new when compared with their genus. Species are more detailed than their genus as they contain more features. As an illustration, a box made of aluminium is new when compared with a box made of metal, but a box made of metal is not new when compared with a box made of aluminium.

Legal references:

GL G-VI, 2, GL G-VI, 4

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