Groups are asked to give a summary of the legal position as regards a patent for a purported selection invention in their jurisdiction in relation to the following:

1) Legal developments on selection inventions

What specific types of inventions are recognized under the concept of selection invention and are patentable in your jurisdiction? Do you have any examples of selection inventions in a field other than chemical, pharmaceutical or material science fields?

General remark

Selection patents are not mentioned in the Belgian patent law. Patentability of a selection invention has to be considered in the same way as any other invention, more in particular the selection invention has to be examined in the same way regarding the requirements of novelty, inventive step, industrial application, etc.

Since there are no express provisions regarding selection inventions in the Belgian patent law, it is to be expected that a judge will follow the case law of the Boards of Appeal (BoA) and the Guidelines for examination of the European Patent Office (EPO) when confronted with the patentability of a selection invention.

Selection inventions are defined as a category of inventions which deal with a selection of individual elements, sub-sets or sub-ranges, which have not been disclosed in the prior art, within a larger known set or range.

Concept of selection invention and patentability

A selection invention is distinguished from a new use invention, and a new use of a known compound would normally not be considered as falling under the concept of selection invention. In the discussion below the term "selection invention" will only refer to an invention which deals with a selection of individual elements, sub-sets or sub-ranges, and not to a “new use of a known compound” invention.

It is believed that the issue of new use inventions is a different issue than the issue of selection inventions. However, for completeness, it is noted that the Belgian patent law
contains the express provision that the patentability of any substance or composition, comprised in the state of the art, for use in a method for treatment of the human body or animal body by surgery or therapy and in a diagnostic practice on the human or animal body, is not excluded provided that its use for any such method is not comprised in the state of the art. In other words a first medical use can be protected by a purpose-limited product claim in the form of ‘substance or composition x for use in any medical method’.

The European Patent Convention (EPC) also specifically regulates the patentability of a second medical use (article 54(5) EPC). This article was introduced in the EPC 2000 to eliminate any legal uncertainty on the patentability of further medical uses; a second medical use can now be protected by a purpose-limited product claim in the form of 'substance or composition x for use in a specific medical method'. Even though the Belgian patent law does not contain a similar provision, it is to be expected that a Belgian national judge will also allow a second medical use claim and that a similar article will be added in the Belgian law in the future.

Field of technology

In theory, selection inventions could occur in any field of technology, but in practice it is difficult to find examples in a field other than chemical, pharmaceutical or material science fields.

2) Novelty

Groups are asked to discuss any issues that should be considered with respect to the novelty of selection inventions. For example, is merely carving a range out of a broad prior art disclosure sufficient to make a selection invention novel? Is a different advantage or use, or the same advantage with an unpredictable improvement required for a selection invention to be novel?

In determining the novelty of a selection, it has to be decided whether the selected elements are disclosed in an individualized (concrete) form in the prior art. Any prior art disclosure is novelty-destroying if the subject matter claimed can be inferred directly and unequivocally from that disclosure, including features which for the skilled person are implicit in what is explicitly disclosed.

In addition, the selection must not be an arbitrary selection, in particular in the sense that a purpose ("purposive selection") may be required.

The case law of the BoA of the EPO distinguishes two types of cases:

(a) chemical substances and groups of substances in respect of general formulae;
(b) sub-ranges in respect of continuous numerical ranges, whether wider or overlapping.

As to selection on the basis of a general formula, the case law has developed the principle of selection of two distinct elements from two lists. A class of chemical compounds defined only by a general structural formula having at least two variable
groups did not specifically disclose each of the individual compounds which would result from the combination of all possible variants within such groups (T181/82).

In the case of a sub-range selected from a broad numerical range of the prior art, said sub-range is considered novel if each of the following three criteria are satisfied (T279/89): the selected sub-range is narrow compared to the known range; the selected sub-range is sufficiently far removed from any specific examples disclosed in the prior art and from the endpoints of the known range; the selected range is not an arbitrary specimen of the prior art, i.e. not a mere embodiment of the prior art, but another invention (purpose of selection, new technical teaching). Further, in the case of overlapping ranges of claimed subject-matter and the prior art, novelty is destroyed by an explicitly mentioned endpoint of the known range, explicitly mentioned intermediate values or a specific example of the prior art in the overlap, or when the skilled person would necessarily contemplate working in the range of overlap and/or when the skilled person would consider the area of overlap as directly and unambiguously disclosed in an implicit manner in the prior art.

Range

Merely carving a range out of a broad prior art disclosure is not sufficient to make a selection invention novel. As explained above, the selected range should not be an arbitrary selection of the prior art. A purpose (new technical teaching) that is not directly and unambiguously disclosed to the skilled person by the prior art may be required to make a selected sub-range novel.

Advantage/use/improvement

A different advantage or use, or the same advantage with an unpredictable improvement, could be the required new technical teaching for a selection invention to be novel, in the sense that it confirms that the selection is not an arbitrary one, provided, as mentioned above, that it is not directly and unambiguously disclosed to the skilled person by the prior art.

3) Inventive step or non-obviousness

*Groups are asked to discuss the inventive step or non-obviousness requirements in their jurisdiction. If experimental data is used to back up the inventive step or non-obviousness requirement can it be submitted after initial patent filing? Are there any prerequisites or limitations on the late submission of data?*

The requirements for inventive step are the same for selection inventions as for any and all inventions.

When applying for a national Belgian patent application there is no substantive examination and patents are granted automatically if the formal requirements are fulfilled. There is however a search report drawn up by the EPO, with an opinion on the patentability; in response, it is possible to file comments, which might comprise experimental data to backup the inventive step or non-obviousness requirements.
Further, during nullity proceedings before a Belgian court any documents or data can be submitted to support the case.

For completeness, it is noted that during the examination proceedings of a European patent application, experimental data filed after the initial patent filing may be taken into account when assessing the inventive step, provided they support some property or advantage that was implied by or at least related to the technical problem initially suggested in the application as filed (T184/82, T386/89; Guidelines C-IV, 11.10). The presence of such data in the file will be mentioned on the cover page of the published European patent specification.

Prerequisites or limitations on the late submission of data

As mentioned above, late submission (i.e. after the filing date) of data is acceptable only if they support some property or advantage that was implied by or at least related to the technical problem initially suggested in the application as filed.

During nullity proceedings before a Belgian court the normal procedural rules apply regarding the submission of evidence.

4) Sufficiency and/or written description requirements

Groups are asked to discuss the sufficiency or written description requirements in their jurisdiction. There may be several aspects to this question: (1) the threshold for sufficiency; (2) the allowable timing for submission of experimental data; (3) the time frame within which sufficiency or written description requirements must be satisfied; and (4) the breadth of claim scope that can be supported by a limited number of examples of asserted or proven advantages. With respect to item (1), please discuss to what extent all members of the class selected by the patentee are required to possess the requisite advantage in your jurisdiction. Is there an absolute requirement that all of the selected class possess the relevant advantage, or is the patentee excused if one or two examples fall short? Also, with respect to item (4) above, if a new utility is asserted as a selection invention, would it suffice to claim a particular range or selection of components which have been found to be associated with such a new utility or would it be necessary to recite such a new utility in the claims?

(1) Threshold

The “sufficiency” and/or “written disclosure” requirements are the same for selection inventions when compared to any other invention. The application must disclose the invention in a manner sufficiently clear and complete for it to be carried by a person skilled in the art.

(2) Experimental data

Regarding the allowable timing for submission of experimental data, reference is made to question 3 above.
(3) **Timing**

The requirement of sufficiency of disclosure must be fulfilled by the application as filed.

(4) **Claim scope**

According to the Belgian patent law, the claims must define the matter for which protection is sought, and must be clear and concise and supported by the description. Further the scope of protection is determined by the content of the claims, wherein the description and drawings shall be used to interpret the claims. The breadth of claim scope is not necessarily influenced by giving only a limited number of examples of asserted or proven advantages.

A certain utility of a range of components could have been used only to establish that the selection was not an arbitrary one, and does not necessarily have to be incorporated in the claim.

5) **Infringement**

*If a certain advantage or superior results were the reasons for the grant of a patent on a selection invention, does such advantage or superior result have to be implicitly or explicitly utilised by a third party for an infringement to be established?*

*If a selection invention is claimed as a new use, what are the requirements to establish infringement? Would a manufacturer of a product that may be used for the new use infringe the patent? Does the intention of an alleged infringer play any role in the determination of infringement?*

**Relevance of advantage/superior result**

If a certain advantage or superior results were the reasons for the grant of a patent (on a selection invention), it could have been used only to establish that the selection was not an arbitrary one (in support of its novelty), or possibly also to establish the inventive step. In both cases, and to the extent such advantage or superior result has not been incorporated as a mandatory requirement in the claims, said advantage or superior result does not have to be utilised by a third party for an infringement to be established.

**New use**

The requirements to establish direct infringement of a claim regarding the new use of a known feature, or product, or device, etc will be the same as for any other invention. It will have to be proven that the alleged infringer applies the features of the claim, i.e. uses the known feature or product or device, etc in the same new way as specified in the claim. It is noted that article 27 § 1 of the Belgian Patent Act which deals with rights of the patentee only relates to products and to methods, and does not mention new uses, but it is believed that new use claims can be treated in the same way as method claims since a new use claim can generally also be formulated as a method characterized by the new use of the known feature, or product, or device, etc.
A manufacturer of a product that may be used for the new use will not necessarily infringe the patent. The question here will be a question of indirect or contributory infringement. An express provision regarding contributory infringement can be found in article 27, §2 of the Belgian Patent Law (28 March 1984):

The patent shall also confer on its owner the right to prevent all third parties not having his consent from supplying or offering to supply on Belgian territory a person other than parties entitled to exploit the patented invention with means, relating to an essential element of that invention, for putting it into effect in the territory, when the third party knows, or it is obvious in the circumstances, that those means are suitable and intended for putting that invention into effect in that territory.

The preceding subparagraph shall not apply when the means are staple commercial products, except when the third party induces the person supplied to commit acts prohibited by paragraph 1.

Persons performing the acts mentioned in article 28, sub a) until sub c), shall not be considered to be entitled to exploit the invention, within the meaning of the first part of this paragraph.

According to the ruling in the Senseo-case (Court of Appeal Antwerp 8 November 2005), under Belgian Patent Law, it is not required that the alleged infringer actually uses the means supplied for committing acts that amount to a direct infringement. In that case, the court acknowledged in very clear wordings the independent nature of the contributory infringement. However, the very straightforward way in which the Antwerp Court of Appeal decided in favour of the independent nature of the contributory infringement raised questions in Belgian doctrine (E. De Gryse, Straffe Koffie (met een laagje schuim)!; note under Antwerp 8 November 2005, Ing. Cons. 2005/5, 532).

Further, according to the above mentioned ruling, the means supplied need to be understood not only as “suitable” but also as “intended for putting the invention into effect”. In particular the condition that the supplier of the means knows or that it is obvious in the circumstances that said means are “intended” for exploiting the invention indicates that at least the possibility of a subsequent exploitation of the invention is required. Yet, the law does not expressly require that the (potential) exploitation would amount to a direct infringement. Moreover, the law does not require that the potential exploitation would be made by the immediate purchaser. In its ruling of 8 November 2005, the Court of Appeal of Antwerp decided therefore that the exploitation by the final user – who was different from the immediate purchaser (distributors/retailers) – does suffice.

For more details about contributory infringement, reference is made to AIPPI Q204.

In case of a claim for a new use of a known product, the question will be whether the known product is a commercial staple product. If it is, a further question will be whether the supplier of the known product knows or whether it is obvious in the circumstances that said known product is “intended” for exploiting the invention. If the answer is positive, then under normal circumstances there could be indirect infringement of a new use claim by manufacturing a product.
6) Policy

Groups are asked to give a short commentary as to the policy that lies behind the law on selection inventions in their jurisdictions, and then to consider whether or not such policy considerations are still valid today as technology continues to advance.

As set out above there are no express provisions on selection inventions in the Belgian Patent Act. However, it is believed that the case law of the BoA of the EPO regarding selections inventions are also applicable to Belgian national patents, and it is not considered necessary to have express provisions on selection inventions in the Belgian Patent Act.

With Reference to the Examples

7) Novelty

In example 1 would the prior disclosure of the compounds containing the generic class of radicals anticipate any claim to a specific compound having a particular radical, or group of specific compounds having a selection of particular radicals in your jurisdiction?

No, a novel selection should, in principle, even be possible by specifying a group of "a few" species within a generic formula, and even if the number of theoretical permutations was small.

An associated issue is to what extent such a generic disclosure can be considered to have actually "reproducibly" disclosed and individualised a specific "product" by merely "listing" it. Consideration should also be given in this respect to new (computerized) means for generating extensive listings of radicals and their permutations.

In the analysis, does it matter how wide the prior disclosed generic class of compounds is – i.e. would the analysis be different if the prior disclosed generic class consisted of 1,000,000 possible compounds (very few of which were specifically disclosed) as opposed to merely, say, 10?

No

8) Inventive step or non-obviousness

In example 2 would any of the three possibilities constitute an inventive step over the prior art in your jurisdiction?

(i) If the resulting compounds are neither described as having nor shown to possess any advantageous properties (as adhesives) not possessed by the specific prior art examples, the selection is not novel, since the selection appears to be arbitrary.
(ii) If the resulting compounds are described as possessing advantageous properties compared with the compounds specifically referred to in the prior art, but these properties are ones which the person skilled in the art would expect such compounds to possess, so that he is likely to be led to make this selection, the selection is either:

- not novel, if the example is interpreted in the sense that these properties are directly and unambiguously disclosed to the skilled person, including features which for the skilled person are implicit in what is explicitly disclosed in the prior art document; or
- not inventive, if these properties are obvious to the skilled person from what is expressly mentioned in the prior art.

(iii) If the resulting compounds are described as having advantageous (adhesive) properties but there are no indications which would lead the person skilled in the art to this particular selection as opposed to any other members of the generic class in order to achieve the advantageous (adhesive) properties, the selection is novel and inventive.

Further, if, say, scenario (iii) does constitute an inventive step over the prior art, what scope of protection should the inventor be able to obtain? Should the inventor be able to obtain protection for the products per se (that happen to have this advantageous property), or should any patent protection available be limited to the use of the products for the advantageous property (as an adhesive) not possessed by, and not obvious over the prior art?

To the extent the products per se are novel and inventive, the inventor should be able to obtain protection for them, as well as (in separate claims) for the use of the products for the advantageous property. Only if the products per se were not patentable should the protection be limited to the new use.

9) Sufficiency and/or written description requirements

To what extent are all members of the class selected by the patentee required to possess the requisite advantage in your jurisdiction? Is there an absolute requirement that all of the selected class possess the relevant advantage, or is the patentee excused if one or two examples fall short?

Yes, according to the case law of the BoA all members of the class must possess the relevant advantage in order for the claim to be novel (in as far as the advantage is considered to be a requirement for the selection not to be arbitrary) and inventive (in as far as the advantage is a requirement for the selection to be inventive).

10) Infringement

By reference to example 3 to what extent is evidence of the knowledge of the advantageous property of the selection, or intention of the infringer as to its supply, required to find infringement in your jurisdiction?

To the extent the selection invention is validly claimed as a product, evidence of the knowledge of the purpose of the selection is not required, and the supply of the product
would be an infringement. If the particular compound per se is known and if the claim extends to the use of the particular compound as an adhesive, and if a competitor manufactures the claimed compound and supplies it with no instructions as to its use, the question is whether there is indirect or contributory infringement – see Q4 above.

11) Policy

*Groups are asked to consider, in respect of example 1 / 2, whether it matters how much effort the inventor has invested in arriving at his selection in order to found a valid selection patent. The answer to this question is closely related to the policy considerations that underpin the grant of selection patents and the incentive / reward equation involved. The inventor may have expended considerable time and money in trawling through the whole host of possible compounds encompassed by the prior disclosed generic class, and the particular selection that he has made may constitute a leap-forward in the field. Surely the inventor should be rewarded for his efforts and obtain protection? On the other hand, it could be argued that such considerations may have been relevant in an age when the inventor’s efforts actually involved many man-years of careful and painstaking laboratory work, but are now increasingly irrelevant in an age of combinatorial synthesis when large varieties of different compounds can be manufactured in a fraction of the time. Are such considerations relevant?*

Effort is not relevant and is not an additional criterion (beyond novelty and inventive step) for patentability. It is the group’s opinion that an effort criterion would not be a suitable consideration for assessing inventive step; certain jobs require much effort but no inventive activity, and hence such jobs should not be rewarded with a patent.

Harmonisation

12) *Groups are asked to analyse what should be the harmonised standards for the patentability of selection inventions. In particular, the items discussed in Q1-Q6 and the examples discussed in Q7-Q10 above should be referred to.*

It is the group’s opinion that no particular harmonised standards are necessary for selection inventions since the existing law and the prevailing concepts on novelty and inventive step can be applied for selection inventions by logical thinking, where necessary using the case law of the EPO.

13) *Groups are also asked to recommend any issues for harmonisation not referred to in Q11 above.*

The group does not have any further recommendations for harmonisation.
Summary

There are no express provisions regarding selection inventions in the Belgian patent act. Patentability of a selection invention has to be considered in the same way as any other invention, more in particular the selection invention has to be examined in the same way regarding the requirements of novelty, inventive step, industrial application, etc. It is to be expected that a national judge will follow the case law of the Boards of Appeal (BoA) and the Guidelines for examination of the European Patent Office (EPO) when confronted with the patentability of a selection invention.

Résumé

La loi belge sur les brevets d’invention ne contient pas de stipulations explicites en ce qui concerne les inventions de sélection. La brevetabilité d’une invention de sélection doit être considérée de la même manière que toute autre invention, plus particulièrement l’invention de sélection doit être examinée de la même manière en ce qui concerne les exigences de nouveauté, d’activité inventive, d’application industrielle, etc. Un juge national est susceptible de suivre la jurisprudence de la Chambre de Recours et les Directives relatives à l'examen pratiqué à l'Office européen des brevets lorsqu’il est confronté avec la brevetabilité d'une invention de sélection.