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UNITY OF INVENTION

IP5 REPORT

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I. INTRODUCTION

1. In June 2013 the IP5 Offices were presented with the so-called Industry IP5 Harmonisation Topics List including an extensive set of target areas where a prospective alignment of practices was regarded desirable or even necessary. Following an evaluation of the listed items and on the basis of a proposal jointly submitted by KIPO and the JPO the IP5 Offices agreed at the ad hoc meeting of the Patent Harmonisation Experts Panel (PHEP) in April 2014 to prioritise work on the topics unity of invention, written description/sufficiency of disclosure and citation of prior art (point 5 - 10, RoD, ad hoc PHEP meeting, 15 April 2014).
2. The PHEP work plan was endorsed by the IP5 Heads of Office at their meeting in June 2014. Additionally, lead Offices were allocated for each topic and for reasons of efficiency it was agreed that unity of invention should be the first topic to be addressed at the next PHEP meeting (point 13, RoD, IP5 Heads of Office meeting, 6 June 2014).
3. The EPO and SIPO in their capacity as lead Offices for the topic of unity of invention introduced during the PHEP meeting in October 2014 a joint draft questionnaire that would allow the IP5 Offices to describe the main elements of their practice on unity of invention. On that basis the IP5 Offices agreed to engage in fact-finding and prepare a report on the IP5 unity of invention practices to be submitted to the IP5 Deputy Heads of Office meeting in March 2015 together with a request to formulate possible options for directions of future work (point 11 – 12, RoD, PHEP meeting, 17 October 2014).
4. The responses to the questionnaire were collected in the timeframe ranging from mid-December 2014 to late January 2015 and a first draft was compiled by the two lead Offices immediately thereafter also in consideration of the Industry IP5 consensus proposals presented to the IP5 PHEP in October 2014.
5. In a nutshell the Industry IP5 proposal suggests that the IP5 Offices should, first, adhere to the PCT standard for unity, which shall be applied across the entire board of the applications the Offices process on the basis of uniform guidelines. Secondly and following the implementation of the above-mentioned standard, the IP5 Offices should in the future consider the introduction of measures that would enhance the reuse of the determination of unity/non-unity by one of the IP5 Offices.

6. In terms of structure the report includes (I) information relevant to the background of the project; (II) a summary of the contributions of the IP5 Offices; (III) preliminary conclusions, i.e. a summary of the report findings; (IV) a series of annexes, such as the joint questionnaire on unity of invention for IP5 Offices, the individual responses of the IP5 Offices thereto and the Industry IP5 consensus proposals.

II. SUMMARY OF THE IP5 OFFICES' CONTRIBUTIONS

1. Description of the applicable legal framework

1.1. What are the legal provisions to be applied in your Office to the assessment of unity of invention?

The legal provisions applied by each of the IP5 Offices to the assessment of unity of invention including the relevant references to the IP5 Offices' examination/practice guidelines have as follows:

- EPO: Article 82 EPC; Rule 44 EPC; Rule 13 PCT; Guidelines for Examination in the EPO, Part F, Chapter V.
- JPO: Article 37 Patent Act; Article 25octies Regulations under the Patent Act; Chapter 2 Part I of the Examination Guidelines for patent and Utility Model.
- KIPO: Article 45 Patent Act; Article 6 Enforcement Decree of the Patent Act; Chapter 5, Part II Patent Examination Guideline.
- SIPO: Article 31, para 1 Patent Law; Rule 34 Implementing Regulations of the Patent Law; Chapter 6 and 10, Part II Guidelines for Patent Examination.
- USPTO: 37 CFR 1.475, 1.476, 1.488, 1.499; 35 U.S.C 121; 37 CFR 1.141, 1.142; MPEP Chapter 800 and 1800.

1.2. Does your Office acting as ISA/IPEA under the PCT apply a different procedure as opposed to that applicable to national applications?

- EPO: The EPO applies the same principles in the European and PCT procedures.
- JPO, KIPO and SIPO: These Offices apply the same principles in the international and national procedures with the exception that the possibility for applicants to have claims lacking unity of invention searched by paying additional fees is only available when these Offices act as ISA/IPEA.
- USPTO: Unity of invention in international applications and national phase applications filed under 35 U.S.C. 371 (PCT route national applications) is assessed according to the PCT unity of invention standard. National applications filed under 35 U.S.C. 111(a) (non-PCT route national applications) are assessed according to the independent and distinct standard, i.e. restriction practice. Additionally, applicants do not have the

opportunity to pay for additional inventions in a single national application in response to a restriction requirement from the patent examiner.

- 1.3. Please describe the grounds/considerations underlying the requirement of unity of invention in your Office.
- EPO: The unity of invention requirement is understood to perform a regulatory function supporting a rational patent granting procedure. It is intended to balance the interests of applicants, third parties and patent granting authorities.
 - JPO: Simplification and rationalisation of the patent application procedure, the use of patent information, and licensing. Promotion of the efficiency of the examination procedure.
 - KIPO: The unity of invention standard is considered to promote the balance between the interests of the applicants, third parties and the Office.
 - SIPO: Economic and technical considerations, namely prevent the applicant from obtaining patent protection for several diverse inventions or utility models by paying only for one patent, and facilitate the classification and efficient processing of a patent application.
 - USPTO: Economic and technical considerations, including prosecution efficiency and technical accuracy. Additionally, examiner burden is considered an inherent consideration in the unity of invention requirement. It should be noted that examiner burden is an express consideration in the USPTO's restriction practice under the independent and distinct standard which is applied in national applications filed under 35 U.S.C. 111(a) (non-PCT route national applications).

- 1.4. Could you attach a copy of the provisions referred to above (in English)?

The relevant provisions of the IP5 Offices as well as their practice guidelines are included in their respective contributions in Annex 1.

2. Description of the practice and method for the assessment of unity of invention

- 2.1. Could you describe the Office's practice regarding the application of those provisions, i.e. what are the criteria to assess whether an application meets the unity requirement?

- 2.2. How are these criteria applied in practice?
- 2.3. How is a unifying technical relation determined between the inventions or groups of inventions claimed, or when are the inventions or the groups of inventions claimed so distinct that they do not fulfil the unity requirement?
- EPO: A group of inventions can be claimed in a single application if these inventions are so linked as to form a general inventive concept. This is the case when there is a technical relationship among these inventions involving one or more of the same or corresponding special technical features. Compliance of a group of inventions with the requirement of unity is given by the existence of the same or corresponding technical features. Thus, the EPO practice focusses on the identification of these features. The expression “special technical feature” means, in any one claim, the particular technical feature or features that define a contribution that the claimed invention considered as a whole makes over the prior art. To determine the special technical features, i.e. those technical features or combination thereof which are novel and inventive, the closest prior art is taken as departure point. In this context, due account is taken of the technical problem(s) addressed by the claimed subject-matter. The claimed subject-matter is compared with the prior art and those features which are novel and may contribute to an inventive step are identified as the special technical features. Once these special technical features have been identified, they are analysed for any technical relationship, i.e. one has to determine whether or not there is a technical relationship between the inventions and, furthermore, whether or not this relationship involves these special technical features. It is not necessary that the special technical features in each invention be the same. For unity to exist, the special technical features must be the same or corresponding in all inventions, which means that they must be either identical or be technically related, such that a common inventive concept can be recognized. If the common matter of the claimed inventions is known or obvious, and the remaining subject matter of each claim diverge from the relevant prior art, such that the claimed inventions share no more amongst each other than what they share with the relevant prior art, then there is lack of unity, as no unifying common inventive concept can be recognised. If, on the other hand, there is a concept or principle which is novel and inventive, then the objection of lack of unity does not arise. The benefit of any doubt is given to the applicant.

- JPO: The requirement of unity of invention shall be examined among inventions described in claims. Usually, it is examined based on relationships among claimed inventions, however, if matters specifying the invention in a claim are expressed by pro forma or de facto alternatives (hereinafter referred to as “alternatives”), an examination for unity of invention is also carried out in respect of relationships among the alternatives. (1) An examination for unity of invention is carried out by determining whether two or more inventions have the same or corresponding special technical features among them. In other words, it is determined by whether one special technical feature of one invention is the same or corresponding special technical features of all other inventions. If there is no same or corresponding special technical feature, the requirements of unity of invention are not fulfilled. Whether “special technical features are same or corresponding” shall be examined substantially irrespective of mere differences in expression. In addition, it is unnecessary to clearly determine whether “the same” or “corresponding” is applicable to the special technical feature and there are cases both are applicable. (2) “Special technical features” of an invention shall be determined based on a content of the description, claims and drawings (hereinafter referred to as “description, etc.”) and common general knowledge as of filing. However, in cases where it becomes clear that what was deemed to be a “special technical feature” does not contribute to the prior art of the relevant inventions, it is denied a posteriori that said technical feature is a “special technical feature”. In this context, cases “where it becomes clear ... does not contribute to the prior art of the relevant inventions” are the cases that fall under any of the following (i) to (iii): (i) where what was deemed to be a “special technical feature” is found in the prior art; (ii) where what was deemed to be a “special technical feature” is an addition, deletion, or replacement of well-known or commonly used art to a prior art, which does not produce any new effects; or (iii) where what was deemed to be a “special technical feature” is a mere design variation of a prior art. (3) Cases where two or more inventions have the corresponding special technical features shall refer to the cases where they have common or closely related technical significance in comparison with the prior art among them or the cases where special technical features are related complementarily. In cases where two or more inventions have the same or overlapping problems solved with respect to the prior art (limited to unsolved problems at the time of filing of the

application concerned), technical significance of the inventions are considered as common or closely related with respect to the prior art and they have the corresponding special technical features. Whether the application meets the requirements of unity of invention shall be determined based on the relationship between the invention first mentioned in the scope of claims and other inventions. In cases where the invention first mentioned in the scope of claims has any special technical feature, an invention having the same or corresponding special technical feature to said special technical feature meets the requirements of unity of invention. On the other hand, the invention first mentioned in the scope of claims does not have any special technical feature, all other inventions are considered not to meet the requirements of unity of invention.

- KIPO: Whether inventions fulfil the requirement of unity is determined on the basis of the technical correlation of the inventions disclosed in each claim. The determination of the unifying technical relation between the inventions or group of inventions claimed is based on the assessment whether these claims contain one or more of the same or corresponding technical features. The special technical features refer to the improved features, considered as a whole, when compared with the prior art. The special technical features are the concept specially suggested to determine the unity of inventions and shall involve novelty and inventive step compared to the prior art disclosed before the concerned patent application has been filed. The unity of invention shall be determined after considering all the inventions as a whole. In this context, special technical features of the inventions do not need to be exactly the same. Whether the unity of invention is satisfied or not can be determined before searching the prior art in some cases, but in general, shall be determined after considering the prior art. For example, in claims disclosing inventions A+X and A+Y, since all the claims have the invention A in common, it could be determined a priori before searching the prior art that the claims involve the unity of inventions. However, where prior art related to A has been searched, each claim does not have the same or corresponding special technical features distinctive from the prior art. Therefore, the claims shall be deemed to lack unity of invention a posteriori. A group of inventions may include multiple independent claims from the same category within one application or may include multiple independent claims from different categories within one application. Also, even one claim may include inventions out of the scope of one group of

inventions, failing to meet the unity of inventions. Whether one group of inventions forms a single general inventive concept is not related to whether one group of inventions is claimed in separate claims or alternatively claimed in one claim. Basically, unity of inventions shall be determined in the following order: (1) A first invention shall be chosen and the special technical features of the first invention which serves as an improvement over the prior art shall be specified by comparison with the prior art related to the invention. It shall be noted that even a single invention may include multiple special technical features depending on the technical content of the invention. In this context, the first invention refers to the main invention and has nothing to do with the order of claims. (2) A second invention shall be chosen and the special technical features of the first invention which serves as an improvement over the prior art shall be specified by comparison with the prior art related to the invention. It shall be noted that even a single invention may include multiple special technical features depending on the technical content of the invention. (3) The technical correlation between the first invention and the second invention shall be checked by determining whether the special technical features of the first invention and the special technical features of the second invention are the same or corresponding. If the special technical features which are the same or corresponding between the two inventions exist, it can be concluded that the inventions belong to the single general inventive concept. (4) Through the steps of (2) and (3) above, whether a single general inventive concept is formed shall be determined based on the technical correlation under Article 6 of the Enforcement Decree of the Patent Act. (5) "The invention subject to examination" shall be designated based on the first invention. In principle, the first invention as well as an invention belonging to the technical group (the first technical group) which forms a single general inventive concept with the first invention shall be prioritized for the invention subject to examination. However, an invention which is not included in any technical group because of lack of improvement over the prior art, but whose examination is substantially finished in the procedure of determination on unity of inventions shall be included. Moreover, an invention which can be examined without additional efforts because of mere differences in expressions such as different categories from the inventions belonging to the first technical group can be included to the invention subject to examination. (6) Examination on patentability except for unity of inventions shall be conducted for

“the invention subject to examination”. Unity of invention can be also determined based on whether the second invention includes the same or corresponding special technical features as the first invention after specifying the special technical features of the first invention in the above-mentioned step (1) and the second invention without conducting any additional prior art search in the steps (2) and (3). For the convenience and efficiency of examination, following procedure is also available: finding the common special technical features of the inventions; determining whether such features make over prior arts; If the common features are not considered to be improved compared to prior arts, unity of inventions shall be deemed lacking.

- SIPO: Two or more inventions (or utility models) belong to a single general inventive concept and may be filed as one application if they are technically interrelated in such a manner that their respective claims have the same or corresponding technical features. The determination of the unifying technical relation between the inventions or group of inventions claimed follows on the basis of an assessment whether these claims contain one or more of the same or corresponding technical features. Rule 34 provides that two or more inventions or utility models belonging to a single general inventive concept which may be filed as one application shall be technically interrelated and contain one or more of the same or corresponding special technical features, wherein the expression “special technical features” shall mean those technical features that define a contribution which each of the inventions or utility models, considered as a whole, makes over the prior art. Rule 34 establishes an approach to the determination of whether or not two or more inventions or utility models claimed in an application belong to a single general inventive concept. In other words, two or more inventions belonging to a single general inventive concept shall be technically interrelated. The interrelationship between the inventions is reflected in their respective claims in the form of the same or corresponding special technical features. Rule 34 also defines the meaning of the expression “special technical features”. It is a concept specifically proposed for the evaluation of unity of a patent application. Special technical features shall be understood as the technical features that define a contribution which the invention makes over the prior art, i. e., the technical features which make the invention, as compared with the prior art and considered as a whole, have novelty and involve an inventive step. Therefore, the expression “belonging to a single general inventive concept” referred to in

Article 31. 1 means having the same or corresponding special technical features. Prior to the search of two or more inventions claimed in one application, whether or not they obviously lack unity shall be firstly determined. If the inventions do not have any same or corresponding technical feature, or the same or corresponding technical features they have are customary means in the art, then it is impossible for them to have any same or corresponding special technical feature that defines a contribution over the prior art, and therefore the inventions obviously lack unity. For two or more inventions that do not obviously lack unity, the determination of unity can be made only after search. In this case, the following approach is normally adopted: (1) compare the subject matter of a first invention with the relevant prior art to identify the “special technical feature” that defines the contribution which the invention makes over the prior art; (2) determine whether a second invention contains one or more special technical features which are the same as or correspond to those in the first invention, so as to determine whether these two inventions are technically interrelated; and (3) if one or more same or corresponding special technical features exist between the inventions, i.e., the inventions are technically interrelated, it can be concluded that they belong to a single general inventive concept. Conversely, if no technical interrelationship exists between the inventions, it can be concluded that they do not belong to a single general inventive concept and thus it can be determined that there is no unity between them.

- USPTO: Where a group of inventions is claimed in an application, the requirement of unity of invention shall be fulfilled only when there is a technical relationship among those inventions involving one or more of the same or corresponding special technical features. The expression “special technical features” shall mean those technical features that define a contribution which each of the claimed inventions, considered as a whole, makes over the prior art. Generally, the assessment of unity of invention is made before substantive search and examination. The examiner first reviews the claims to see if they lack unity a priori, before consideration of the prior art. If unity does not exist a priori, an appropriate requirement is made. In the international phase, the appropriate requirement would be an invitation to pay additional search or examination fees. USPTO as ISA does not issue search results on the main invention with such an invitation. In a U.S. national phase application, the examiner would issue a restriction requirement where the

applicant is invited to select one of the inventions and is informed that the remaining inventions must be pursued by way of divisional applications unless the other inventions are rejoined during prosecution. Where unity is present a priori, the examiner must either assume that any corresponding technical features qualify as a special technical feature (a contribution over the art) or search to the extent necessary to determine whether any corresponding technical features are a contribution over the art. First, the examiner determines if the claims share technical features (same or corresponding). If the claims do not share any of the same technical features or any corresponding technical features, the inventions are considered to lack unity a priori. Where the claims do share technical features, the scope of the shared technical features is determined. It is then determined whether or not the entire scope of the shared technical features are known in the art. In other words, do they qualify as a “special technical feature”? This determination is made with respect to both novelty and inventive step.

2.4. Does the examiner enjoy any discretion to deviate from the application of the criteria described above and, if so, in what particular circumstances?

- EPO: While the unity objection should be made and amendment insisted upon in clear cases, it should neither be made nor persisted in on the basis of a narrow, literal or academic approach, particularly when the possible lack of unity does not necessitate a further search.
- JPO: For reasons of examination efficiency, examiners can add inventions to the subject of the examination. Whether it is efficient to examine an invention collectively shall be determined by comprehensively taking into consideration matters described in the description, etc., common general knowledge as of filing, and perspectives of prior art searches.
- KIPO: The examiner does not need to raise a unity of invention objection based on a literal approach. Instead he may examine inventions lacking unity of invention provided that the examination can be performed and concluded with little or no additional search effort.
- SIPO: The examiner enjoys some discretion to perform the search for claims lacking unity of invention to the extent that these claims describe technical solutions that fall into the

technical field of his responsibility, their search fields are too close or greatly overlap and the search to be performed requires little or no additional effort.

- USPTO: The examiner has the discretion to perform search and examination without requiring additional search and examination fees in the international phase or requiring restriction in the national phase, where the claims technically lack unity but the determination is narrow and academic, where it is simply more efficient to search and examine the inventions together or whether there is no additional burden for the examiner.

3. Unity of invention practice in particular cases

3.1. Shall the lack of unity be raised among the claims for a product, a process adapted for the manufacture of said product, a use of said product?

- EPO: A plurality of independent claims in different categories may constitute a group of inventions so linked as to form a single general inventive concept.
- JPO: If a method of producing a product, or product and machine, instrument, device, the other means for producing a product is suitable for producing “the product”, or if a “method of using a product” is suitable for use of “that product”, or if a special technical feature of “a product solely utilizing the specific properties of another product” solely utilizes the special technical feature of “another product”, they have the same or corresponding special technical feature.
- KIPO: The lack of unity may not be raised among the claims for a product, a process adapted for the manufacture of said product, a use of said product. If a process adapted for manufacture of a product is appropriate for the manufacture of the product, the requirement for unity of invention is satisfied.
- SIPO: The lack of unity may not be raised among the claims for a product, a process adapted for the manufacture of said product, a use of said product.
- USPTO: In international applications under the PCT, the method for determining unity of invention is construed as permitting the inclusion of a claim for a product, a process adapted for the manufacture of said product, and a use of said product. However,

the claims must still have the same or corresponding special technical feature in order to have unity.

3.2. Is it at all possible that the lack of unity of invention exists on each of the following cases: (a) within a single claim, (b) among the independent claims, (c) between an independent claim and its dependent claims, (d) among dependent claims of the same independent claim?

- EPO: It is possible that the lack of unity of invention exists within a single claim, among the independent claims. No objection on account of lack of unity a priori is justified in respect of a dependent claim and the claim on which it depends.
- JPO: It is possible that the lack of unity of invention exists in each of situations (a) – (d) above.
- KIPO: It is possible that the lack of unity of invention exists within a single claim, among the independent claims. There is no lack of unity of invention among dependent claims of the same independent claim, between an independent claim and its dependent claims unless there are special circumstances, e.g. the independent claim lacks unity of invention.
- SIPO: It is possible that the lack of unity of invention exists within a single claim, among the independent claims, among dependent claims of the same independent claim. There is no lack of unity of invention between an independent claim and its dependent claims.
- USPTO: it is possible that a lack of unity exists in each of situations (a) – (d) above.

3.3. Are there established findings regarding the assessment of unity in particular cases, notably in case of combination of claims of different categories, intermediate and final products, or Markush groupings?

3.4. Could you explain how unity is assessed in these cases?

- EPO: Intermediate and final products are considered unitary where they have the same essential structural element or are technically interrelated.

Markush groupings are considered unitary if they can be regarded as being of a similar nature, i.e. if all alternatives have a common property or activity or if a common structure is present.

- JPO: In order for an invention related to an intermediate product and another related to the final product have the same or corresponding special technical features, the following requirements (i) and (ii) must be satisfied: (i) An intermediate and a final product have the same or technically closely related structural element; (ii) The intermediate product and the final product are technically related to each other. In other words, the final product is prepared directly from an intermediate product or prepared through a small number of the other new intermediate products that include the same substantial structural element.

Where a claim is described in the Markush-Type, the unity of invention in the claim is examined by finding out whether its alternatives have the same or corresponding special technical features. Especially, where a claim described in the Markush-Type is related to a compound written in an alternative form, each alternative has the same or corresponding special technical features, if the following (i) and (ii) are satisfied: (i) All alternatives have a common property or activity; and (ii) (a) a common chemical structure is present, i.e., a significant structural element is shared by all of the alternatives, or (b) in cases where the common chemical structure cannot be the unifying criteria, all alternatives belong to a class of chemical compounds recognized as single in the art to which the invention pertains.

- KIPO: Where the below-mentioned (1) and (2) are satisfied, unity of inventions unity of inventions between intermediate materials and end products is deemed to be met: (1) major structural elements between intermediate materials and end products shall be identical. In other words, (i) the basic chemical structure between intermediate materials and end products is the same, or (ii) the basic chemical structure between intermediate materials and end products is technically closely related and intermediate materials provide major structural to end products; (2) intermediate materials and end products shall be technically closely related. In other words, end products are directly produced from intermediate materials, or the major structural are manufactured via a few identical intermediate materials.

Where alternative elements are disclosed in the Markush style in a single claim, if the alternative elements have “corresponding qualities or functions”, unity of inventions is met. Where the Markush is regarding chemical compound and such elements meet the requirement under Examination Guideline Part II Chapter 4.4(5), requirement for drafting Markush claim, the Markush group

shall be considered to have corresponding qualities or functions. Once at least one alternative element among the alternatives in the Markush group is determined to lack novelty over prior arts, an examiner shall review unity of inventions.

- SIPO: For the case of combination of claims of different categories, please make reference to the section 2(2) of the answer of 2.1.

Basic principles of the unity between intermediate and final product are as following: (1) unity exists between an intermediate and a final product if the following two conditions are simultaneously met: (i) the intermediate and the final product have the same basic structure unit, or their chemical structures are technically closely related, and the basic structure unit of the intermediate is incorporated into the final product; (ii) the final product is prepared or separated directly from the intermediate. (2) For several processes for preparing the same final product from the different intermediates, if these different intermediates possess the same basic structure unit, these processes may be claimed for protection in one application. (3) The different intermediates of different structural parts of the same final product shall not be claimed in one application.

If the alternative elements in a Markush claim possess similar nature, they shall be regarded as technical-related and having the same or corresponding special technical features, and the claim may be considered as meeting the requirements of unity. Where the Markush elements are for alternatives of compounds, they shall be regarded as being of a similar nature, and at the same time the Markush claim possesses unity if they meet the following standards: (1) all alternative compounds possess a common property or activity; and (2) all alternative compounds possess a common structure, which constitutes the distinguishing feature between the compounds and those in the prior art, and is essential to the common property or activity of the compounds of general formula, or under the circumstances that they do not have a common structure, all of the alternative elements belong to the same class of compounds recognized in the technical field to which the invention pertains.

- USPTO: The USPTO generally follows the practice as illustrated in the ISPE Guidelines for each of these cases. See for example paragraphs 10.12 – 10.16 and 10.21 -10.27 for combinations of claims in different categories, paragraphs 10.18 and 10.46-10.51

for intermediate and final products, and paragraphs 10.17 and 10.38-10.45 for Markush groupings.

4. Procedural consequences in cases of non-compliance with the unity requirement

4.1. Could you indicate the stages of the procedure in which non-unity objections can be raised?

- EPO: Objections of lack of unity can be raised at any point during the processing of the file, i.e. both during search and substantive examination.
- JPO: Non-unity objections can be raised in the stages of substantive examination.
- KIPO: Non-unity objections can be raised in the stage of substantive examination.
- SIPO: Non-unity objections can be raised in the stages of “preliminary examination”, “examination as to the substance” and “re-examination”.
- USPTO: Non-unity objections can be made at any point during prosecution.

4.2. What is the impact of a non-unity objection on the subject matter to be searched/examined?

- EPO: During the search phase the examiner will only draw up a partial search report based on those parts of the application relating to the invention or group of inventions first mentioned in the claims. During examination non-unitary claimed subject-matter will have to be removed and used for divisional applications.
- JPO: The examiner will search and examine only the claims within the invention subject to examination.
- KIPO: The examiner will search and examine only the claims within “the invention subject to examination”.
- SIPO: SIPO differentiates between cases lacking unity obviously and non-obviously. In the former cases the examiner will perform a full search provided that (1) the applicant has amended the claims to overcome the lack of unity, or (2) the non-unitary claims describe technical solutions that fall into the technical

field of his responsibility, their search fields are too close or greatly overlap and the search to be performed requires little or no additional effort. In cases lacking unity non-obviously the examiner (1) after he has performed the search for the first independent claim and has established that there is lack of novelty and inventive step in that claim, he shall determine whether unity exists between the remaining independent claims. A search is not required for those independent claims that lack unity; (2) may perform a full search, which does not greatly increase the workload, if the inventive concept of two or more independent claims is very close, and none of the independent claims needs to be searched in other technical fields; (3) may apply mutatis mutandis the methods described above if the search performed on an independent claim reveals that the claim lacks novelty or inventive step which results in lack of unity between its inter-parallel dependent claims.

- USPTO: During the international phase, claims for which additional search or examinations fees are not paid are then excluded from search and no opinion on novelty, inventive step or industrial applicability is established. In a U.S. national phase application, the applicant must elect an invention to be pursued in the instant application and the other inventions must be pursued via divisional applications (unless re-joined at some point in the prosecution).

4.3. How can the applicant react in case a non-unity objection has been raised?

- EPO: If the unity objection has been raised during the search phase the applicant may pay further search fee(s) within two months and the search will cover also the inventions lacking unity. In cases where unity has been found lacking during substantive examination, the applicant will have to limit the claims in such a way as to overcome the objection, i.e. restrict the claims to a single searched invention. Excision or amendment of parts of the description may also be necessary. Provided that the parent application is still pending, one or more divisional applications covering subject-matter removed to meet the unity objection may be filed.
- JPO: Applicants shall amend or divide the claims in order to make the claimed invention form a single general inventive concept.

- KIPO: The applicant will have to restrict the claims to a single general inventive concept and may file divisional applications for subject-matter claimed in the inventions removed.
- SIPO: In cases where unity is not present, the examiner shall invite the applicant to amend the application in order to overcome the unity objection. The applicant may file a divisional application for the removed, non-unitary claimed subject-matter.
- USPTO: In the international phase, the applicant may pay for the search or examination of the additional inventions. Where the applicant disagrees with the non-unity objection, they can pay the additional search or examination fees under protest per PCT Rule 40.2(c). In a U.S. national phase application, the applicant must elect an invention for search and examination in response to a restriction requirement. However, the election can be made with traverse and arguments provided to indicate any purported defect in the restriction requirement based on non-unity. The examiner will then need to consider the applicant's arguments in relation to the restriction requirement. Where the requirement is maintained, the applicant may request supervisory review and, ultimately, final agency review of the restriction requirement. If the requirement is affirmed after such a request(s), the non-elected inventions must be pursued in divisional applications (unless re-joined at some point in the prosecution).

4.4. What are the legal consequences, in the different stages of the procedure, if the unity requirement is not met by the applicant?

- EPO: During the search stage the examiner will issue a partial search report covering only the invention or group of inventions first defined in the claims and the applicant will be invited to pay additional fees, if he wishes the search report to cover the other inventions too. During substantive examination, however, if the applicant does not limit the claims in response to the non-unity objection raised, the application shall be refused.
- JPO: Failure to meet the requirements of unity of invention constitutes a reason for refusal, but does not constitute a reason for invalidation. Lack of unity of invention does not mean a substantial defect in the inventions in comparison with other reasons for refusal but mere a formal defect that the subject-matter claimed in a single application should have been pursued in two or more applications.

- KIPO: Lack of unity constitutes only a ground for rejection of the patent application and not for invalidation of the patent.
- SIPO: If the case is in the stage of “Preliminary examination” or “the examination as to the substance”, the application will be rejected. If the case is in the stage of re-examination, the earlier decision rejecting the application will be maintained.
- USPTO: There does not appear to be any consequence where the unity requirement is not met at the international phase if additional search and/or examination fees are paid. Where such additional fees are not paid at the international stage, PCT Article 17(3)(b) allows a designated State to consider those parts of the international application withdrawn unless a special fee is paid. The USPTO in its capacity as a designated Office does not require such a special fee and does not consider the unity determination made at the international stage binding. The USPTO evaluates unity of invention in the national stage and will require restriction where appropriate. Ultimately, the consequence would be the need to pursue the inventions which lack unity in divisional applications.

5. Offices communications regarding unity

- 5.1. Could you attach some actual communications from your Office raising non-unity objections, including the corresponding reasoning?

The communications regarding unity of invention are included in the annexed contributions of the Offices and are attached for information purposes only.

III. CONCLUSIONS/SUMMARY OF THE REPORT FINDINGS

1. Description of the applicable legal framework

- 1.1. The EPO, JPO, KIPO and SIPO apply to a great extent the same principles and procedures both in their capacity as ISA/IPEA and in their capacity as national/regional office.
- 1.2. At the USPTO the standard applied in the office's capacity as ISA/IPEA and in applications which enter the U.S. national phase is different than the standard applied in other national applications.
- 1.3. The EPO is the only Office before which applicants may have non-unitary subject-matter searched by paying additional fees regardless of the type of the application processed, i.e. international or European patent application.
- 1.4. At the JPO, KIPO, SIPO and the USPTO this possibility is limited only to the processing of an international application, i.e. in their capacity as ISA/IPEA.
- 1.5. The unity of invention requirement is understood to perform a regulatory function supporting a rational patent granting procedure. It is intended to balance the interests of applicants, third parties and patent granting authorities. The considerations underlying the unity of invention requirement in the IP5 Offices are primarily of economic and technical nature and concentrate in particular on prosecution efficiency, efficient workload/examination capacities management and technical accuracy.

2. Description of the practice and method for the assessment of unity of invention

- 2.1. For unity of invention to be present the IP5 Offices require a group of inventions so linked as to form a single general inventive concept. The requirement shall be fulfilled when there is a technical relationship among these inventions involving one or more of the same or corresponding special technical features, i.e. such features that define a contribution which each of the inventions considered as a whole makes over the prior art. The above standard applies to the assessment of unity in international applications under the PCT before the USPTO as ISA/IPEA and applications which enter the U.S. national phase. For non-PCT route national applications in the USPTO, it applies the independent and distinct standard.

- 2.2. For the determination of these special technical features the closest prior art is taken into account.
- 2.3. Lack of unity can be in certain cases directly evident and established without consideration of the prior art (“a priori”). In general, though, it shall be determined after taking the prior art into consideration (“a posteriori”).
- 2.4. Examiners in all five jurisdictions appear to enjoy a certain, albeit limited degree of flexibility and discretion allowing them to deviate from the application of the practice outlined above. Thus, examiners can refrain from raising unity objections for reasons of examination efficiency, for example when searching and examining the inventions together does not require additional effort or burden for the examiner. Furthermore, the practice in certain Offices is such that lack of unity objections should not be made on the basis of a narrow, literal approach.

3. Unity of invention practice in particular cases

- 3.1. For the combination of claims of different categories, such as the claims for a product, a process adapted for the manufacture of said product, a use of said product, the EPO, the JPO, KIPO, SIPO share the same way to assess the unity in these cases. The lack of unity may not be raised among these claims if they have the same or corresponding special technical feature, such as the combination of an independent claim for a product and an independent claim for a process “specially adapted for” the manufacture of said product. The same rule applies to the assessment of unity in international applications under the PCT before the USPTO as ISA/IPEA and applications which enter the U.S. national phase.
- 3.2. In all IP5 offices it is possible for lack of unity of invention to exist within a single claim or among the independent claims. For the cases between an independent claim and its dependent claims or among dependent claims of the same independent claim, normally there should be no lack of unity of invention, unless under special circumstances, such as when the independent claims lack novelty or inventive step.

- 3.3. In the EPO, the JPO, KIPO the Intermediate and final products are considered unitary if the following requirements (i) and (ii) are both satisfied: (i) the intermediate and the final product have the same basic structure unit or their chemical structures are technically closely related; (ii) the intermediate product and the final product are technically related to each other. These rules also apply to international applications under the PCT before the USPTO as ISA/IPEA and applications which enter the U.S. national phase. In SIPO, requirement (i) is provided identically, and although there is no general requirement on technically related to each other, the detailed principle that the final product is prepared or separated directly from the intermediate could be considered as one case of technically related to each other. And the same situation appears to the principle for several processes for preparing the same final product from the different intermediates.
- 3.4. In the EPO, the JPO, SIPO, where a claim is described in the Markush-Type, the unity of invention in the claim is examined by finding out whether its alternatives have the same or corresponding special technical features. Where the Markush elements are for alternatives of compounds, they shall be regarded as being of a similar nature, and at the same time the Markush claim possesses unity if they meet the following standards: (1) all alternative compounds possess a common property or activity; and (2) all alternative compounds possess a common structure, which constitutes the distinguishing feature between the compounds and those in the prior art, or under the circumstances that they do not have a common structure, all of the alternative elements belong to the same class of compounds recognized in the technical field to which the invention pertains. These rules also suit to the international application under the PCT in the USPTO. In SIPO, under the standard (2), the requirement that the common structure is essential to the common property or activity of the compounds of general formula is provided too. In KIPO, the standard is referring to “corresponding qualities or functions”, where alternative elements are disclosed in the Markush style in a single claim, if the alternative elements have “corresponding qualities or functions”, unity of inventions is met.
- 3.5. According to the USPTO’s feedback, currently there are no rules and practices regarding the assessment of unity of invention for national applications filed under 35 U.S.C. 111(a) (non-PCT route national applications) in the USPTO. The USPTO follows its domestic restriction practice in these applications as set forth in 35 U.S.C. 121, the independent and distinct standard.

- 4. Procedural consequences in cases of non-compliance with the unity requirement**
- 4.1. The description of the procedural consequences in cases of non-compliance with the unity requirement reveals the following points:
- 4.2. While at the JPO and KIPO non-unity objections can only be raised during substantive examination, at the EPO, SIPO and the USPTO non-unity objections can be made anytime throughout the prosecution of the file.
- 4.3. A non-validly contested non-unity objection will in all five jurisdictions, in principle, result into a limitation/restriction of the subject-matter to be searched/examined.
- 4.4. Once a non-unity objection has been raised the JPO, KIPO and SIPO practice is such that the applicant will have to amend the application, i.e. restrict the claims in order to overcome the objection. This also applies to the EPO practice in case unity has been found lacking during substantive examination. At the USPTO during the processing of the U.S. national phase application the applicant must elect an invention for search and examination in response to a restriction requirement.
- 4.5. During the search phase at the EPO the applicant has the possibility to have claimed subject-matter found non-unitary searched by paying additional fees. At the other IP5 Offices this possibility exists only during the processing of an international application, i.e. in their capacity as ISA/IPEA.
- 4.6. In all five jurisdictions, however, the applicant has the possibility to file one or more divisional applications to pursue the subject-matter removed to overcome the non-unity objection.
- 4.7. Failure to meet the unity of invention requirement during substantive examination constitutes grounds for refusal/rejection of the application at the EPO, JPO, KIPO and SIPO. It should, however, be noted that in case of non-compliance with the unity requirement during the search stage at the EPO the examiner will issue a partial search report covering only the invention or group thereof first defined in the claims and the applicant will be invited to pay additional fees, if the search report is to be drawn up to cover the remaining inventions.

- 4.8. Failure to meet the unity of invention requirement appears to have no consequence at the USPTO during the international phase. Unity of invention is evaluated in the national phase and restriction will be required, i.e. the applicant will need to pursue the inventions which lack unity in divisional applications.

IV. ANNEXES

1. Joint questionnaire on unity of invention for IP5 Offices
2. Contributions of the IP5 Offices
 - 2.1. EPO
 - 2.2. JPO
 - 2.3. KIPO
 - 2.4. SIPO
 - 2.5. USPTO
3. Industry IP5 Consensus proposals to the IP5 Patent Harmonisation Experts Panel (PHEP)

ANNEX 1 JOINT QUESTIONNAIRE ON UNITY OF INVENTION FOR IP5 OFFICES

1. Description of the applicable legal framework

- 1.1. What are the legal provisions to be applied in your Office to the assessment of unity of invention?
- 1.2. Does your Office acting as ISA/IPEA under the PCT apply a different procedure as opposed to that applicable to national applications?
- 1.3. Please describe the grounds/considerations underlying the requirement of unity of invention in your Office.
- 1.4. Could you attach a copy of the provisions referred to above (in English)?

2. Description of the practice and method for the assessment of unity of invention

- 2.1. Could you describe the Office's practice regarding the application of those provisions, i.e. what are the criteria to assess whether an application meets the unity requirement?
- 2.2. How are these criteria applied in practice?
- 2.3. How is a unifying technical relation determined between the inventions or groups of inventions claimed, or when are the inventions or the groups of inventions claimed so distinct that they do not fulfil the unity requirement?
- 2.4. Does the examiner enjoy any discretion to deviate from the application of the criteria described above and, if so, in what particular circumstances?

3. Unity of invention practice in particular cases

- 3.1. Shall the lack of unity be raised among the claims for a product, a process adapted for the manufacture of said product, a use of said product?
- 3.2. Is it at all possible that the lack of unity of invention exists on each of the following cases: (a) within a single claim, (b) among the independent claims, (c) between an independent claim and its dependent claims, (d) among dependent claims of the same independent claim?

3.3. Are there established findings regarding the assessment of unity in particular cases, notably in case of combination of claims of different categories, intermediate and final products, or Markush groupings?

3.4. Could you explain how unity is assessed in these cases?

4. Procedural consequences in cases of non-compliance with the unity requirement

4.1. Could you indicate the stages of the procedure in which non-unity objections can be raised?

4.2. What is the impact of a non-unity objection on the subject matter to be searched/examined?

4.3. How can the applicant react in case a non-unity objection has been raised?

4.4. What are the legal consequences, in the different stages of the procedure, if the unity requirement is not met by the applicant?

5. Offices communications regarding unity

5.1. Could you attach some actual communications from your Office raising non-unity objections, including the corresponding reasoning?
Contributions of the IP5 Offices

ANNEX 2 CONTRIBUTIONS OF THE IP5 OFFICES

ANNEX 2.1 EPO

The requirement of unity of invention in the EPO

1. Legal framework

The main provisions governing unity are identical under the EPC and the PCT. In this regard, applications must relate to **one invention only** or to a group of inventions so linked as to form a **single general inventive concept** (Article 82 EPC, Rule 13.1 PCT).

A group of inventions is so linked as to form a single general inventive concept when there is a technical relationship among those inventions involving one or more of the **same or corresponding special technical features** (Rule 44(1) EPC, Rule 13.2 PCT).

The expression “special technical features” means those features which define a **contribution** which each of the claimed inventions considered as a whole makes **over the prior art** (Rule 44(1) EPC, Rule 13.2 PCT).

The determination of whether a group of inventions is so linked as to form a **single general inventive concept** is made without regard to whether the inventions are claimed in separate claims or as alternatives within a single claim (Rule 44(2) EPC, Rule 13.3 PCT).

The EPO practice regarding unity of invention is addressed in the Guidelines for Examination in the European Patent Office, Part F - V.

2. The assessment of unity in the EPO

The EPO applies the same principles in European and PCT procedures.

Compliance of a group of inventions with the requirement of unity is given by the existence of the same or corresponding special technical features, thus, the EPO practice focuses on the identification of these features.

To determine the special technical features, i.e. those technical features or combination thereof which are novel and inventive, the closest prior art is taken as departure point. In this context, due account is taken of the technical problem(s) addressed by the claimed subject-matter. The claimed subject-matter is compared with the prior art and those features which are novel and may contribute to an inventive step are identified as the special technical features. Then these special technical features are analysed for any technical relationship. For unity to exist, the special technical features must be the same or corresponding in all inventions, which means that they must be either

identical or be technically related, such that common inventive concept can be recognized.

If the common matter of the claimed inventions is known or obvious, and the remaining subject matter of each claim diverge from the relevant prior art, such that the claimed inventions share no more amongst each other than what they share with the relevant prior art, then there is lack of unity, as no unifying common inventive concept can be recognized. If, on the other hand, there is a concept or principle which is novel and inventive, then the objection of lack of unity does not arise. The benefit of any doubt is given to the applicant.

Dependent claims are considered unitary among themselves, as the general concept they have in common is the subject-matter of the independent claim-+.

Conflicting applications (Art. 54(3) EPC), namely those European patent applications the date of filing of which is earlier than the one of the application under examination, but which were published on or after that date, are disregarded in the evaluation of unity of invention, since they cannot anticipate the inventive concept of the application under examination.

Non-unity objections cannot be raised or persisted in on the basis of a narrow, literal or academic approach, in particular, if the possible lack of unity does not necessitate a further search. Additionally, it is not the formal choice of words or form of claims, but the actual content of them which establishes the technical relationship between the subject-matter of the different inventions, and which is thus decisive for the question of unity.

3. Particular cases

The Guidelines for Examination in the EPO contain some specific findings in relation to some particular cases:

- Intermediate and final products are considered unitary where they have the same essential structural element or are technically interrelated.
- Markush groupings are considered unitary if they can be regarded as being of a similar nature, i.e. if all alternatives have a common property or activity or if a common structure is present.

4. Procedural aspects of unity

Objections of lack of unity can be raised both during search and substantive examination.

During the search phase, the EPO may neither refuse the application for lack of unity nor require limitation of the claims, but must inform the applicant that, if the search report is to be drawn up to cover those inventions other than the first mentioned, then further search fees must be paid within two months.

During substantive examination, the EPO can either reiterate the same objections raised during search or raise new non-unity objections, e.g. as a result of further prior art becoming available at a later stage of proceedings (non-unity *a posteriori*). These objections are only to be raised in clear cases. However, whenever unity is found to be lacking, the applicant should be required to limit his claims in such a way as to overcome the objection, which means restricting them to a single searched invention. Excision or amendment of parts of the description may also be necessary. One or more divisional applications, covering matter removed to meet this objection, may be filed.

Example of an EPO office communication regarding unity

The application comprises two (2) independent claims, namely:

Claim 1: a Swiss Army knife (A) comprising a ballpoint pen (B) and a compass (C),
and

Claim 10: a Swiss Army knife (A) comprising a laser pointer (D).

Document D1 describes: [*cite the appropriate passage and give a brief explanation of what features D1 discloses*] a Swiss Army knife (A) and a Swiss Army knife (A) with a ballpoint pen (B). D1 is considered to be the most relevant prior art at hand.

Invention 1:

A compass (C) is the feature which makes claim 1 novel over the disclosure D1. The technical effect of the compass (C) is indicating a direction (*cite an appropriate passage of D1*), which solves the technical problem (P1) of how to find a direction. As the compass (C) therefore makes a contribution over prior art D1, it is a **special technical feature**.

Invention 2:

A laser pointer (D) is the feature which makes claim 10 novel over the disclosure D1. The technical effect of the laser pointer (D) is the ability to point at a screen from a distance (*cite an appropriate passage of D1*), which solves the technical problem (P2) of how to point at a screen from a distance. As the laser pointer (D) makes a contribution over prior art D1, it is a **special technical feature**.

The special technical features of inventions 1 and 2, i.e. (C) and (D) are not the same. These special technical features solve different technical problems, i.e. (P1) and (P2), so they are not corresponding. This means that there is no technical relationship between inventions 1 and 2. Consequently, claims 1 and 10 do not fulfil the requirements of R.44(1) and do not meet the requirement of unity of invention under Art. 82 EPC.

The claims are divided into two groups of inventions as follows:

- Group I. Independent claim 1 and dependent claims 2-9 relating to a Swiss Army knife (A) comprising a ballpoint pen (B) and a compass (C), and
- Group II. Independent claim 10 and dependent claims 11-15 relating to a Swiss Army knife (A) comprising a laser pointer (D).

**JOINT QUESTIONNAIRE ON UNITY OF INVENTION
JPO'S ANSWERS**

1. Description of the applicable legal framework

1.1 What are the legal provisions to be applied in your Office to the assessment of unity of invention?

Answer: The following provisions are applied to assess unity of invention in the JPO, Article 37 of the Patent Act, Article 25octies of the Regulations under the Patent Act and the Chapter 2 of the Part I of the Examination Guidelines for Patent and Utility Model.

1.2 Does your Office acting as ISA/IPEA under the PCT apply a different procedure as opposed to that applicable to national applications?

Answer: The JPO, as an ISA/IPEA under the PCT, applies the similar procedure with national applications on unity of invention. The one of the differences is that, when the JPO acts as ISA/IPEA, the applicants could ask the JPO to search the claims lacking unity of invention by paying additional fee.

1.3 Please describe the grounds/considerations underlying the requirement of unity of invention in your Office.

Answer: If two or more inventions that are technically closely interrelated can be filed for patents in a single application, the application procedures are simplified and rationalized and it becomes easier for third parties to use patent information and transact rights. In addition, it allows the Patent Office to examine such inventions together in an efficient way. In light of these points, Article 37 provides for the scope of cases where two or more inventions that could also be separately filed for patent may be filed in a single application.

1.4 Could you attach a copy of the provisions referred to above (in English)?

Answer:

a) Article 37 of the Patent Act

Two or more inventions may be the subject of a single patent application in the same application provided that, these inventions are of a group of inventions recognized as fulfilling the requirements of unity of invention based on their technical relationship designated in Ordinance of the Ministry of Economy, Trade and Industry,.

b) Article 25octies of the Regulations under the Patent Act

The technical relationship specified by the Ordinance of METI set forth in Article 37 of the Patent Law is the technical relationship of two or more inventions which have the same or corresponding special technical feature, and hence, are associated with each other to form a single general inventive idea.

2. The special technical feature under the previous paragraph is a technical feature clearly providing a contribution over the prior art of the invention.

3. The presence or absence of the technical relationship prescribed in paragraph 1 shall be judged, regardless of whether two or more inventions are described in separate claims or are described in an alternative form in a single claim.

c) The Examination Guidelines for Patent and Utility Model

See Examination Guidelines for Patent and Utility Model Chapter 2 of the Part I at

http://www.jpo.go.jp/tetuzuki_e/t_tokkyo_e/Guidelines/1_2.pdf

2. Description of the practice and method for the assessment of unity of invention

2.1 Could you describe the Office's practice regarding the application of those provisions, i.e. what are the criteria to assess whether an application meets the unity requirement?

Answer: The requirement of unity of invention shall be examined among inventions described in claims.

Usually, it is examined based on relationships among claimed inventions, however, if matters specifying the invention in a claim are expressed by pro forma or de facto alternatives (hereinafter referred to as "alternatives"), an examination for unity of invention is also carried out in respect of relationships among the alternatives.

(1) An examination for unity of invention is carried out by determining whether two or more inventions have the same or corresponding special technical features among them. In other words, it is determined by whether one special technical feature of one invention is the same or corresponding special technical features of all other inventions. If there is no same or corresponding special technical feature, the requirements of unity of invention are not fulfilled.

Whether "special technical features are same or corresponding" shall be examined substantially irrespective of mere differences in expression. In addition, it is unnecessary to clearly determine whether "the same" or "corresponding" is applicable to the special technical feature and there are cases both are applicable.

(2) "Special technical features" of an invention shall be determined based on a content of the description, claims and drawings (hereinafter referred to as "description, etc.") and common general knowledge as of filing.

However, in cases where it becomes clear that what was deemed to be a "special technical feature" does not contribute to the prior art of the relevant inventions, it is denied a posteriori that said technical feature is a "special technical feature" (Note 1).

In this context, cases "where it becomes clear ... does not contribute to the prior art of the relevant inventions" are the cases that fall under any of the following (i) to (iii):

(i) where what was deemed to be a "special technical feature" is found in the prior art (See Note 2);

(ii) where what was deemed to be a “special technical feature” is an addition, deletion, or replacement of well-known or commonly used art to a prior art, which does not produce any new effects; or

(iii) where what was deemed to be a “special technical feature” is a mere design variation of a prior art.

(Note 1) Even if any technical feature of the relevant inventions is denied to be a “special technical feature,” another technical feature may be a “special technical feature” in some cases.

(Note 2) “Prior art” refers to inventions that fall under each item of Article 29(1)¹, and does not include inventions that had not been published at the time of filing of the application concerned.

(3) Cases where two or more inventions have the corresponding special technical features shall refer to the cases where they have common or closely related technical significance in comparison with the prior art among them or the cases where special technical features are related complementarily.

In cases where two or more inventions have the same or overlapping problems solved with respect to the prior art (limited to unsolved problems at the time of filing of the application concerned), technical significance of the inventions are considered as common or closely related with respect to the prior art and they have the corresponding special technical features.

2.2 How are these criteria applied in practice?

Answer: Whether the application meets the requirements of unity of invention shall be determined based on the relationship between the invention first mentioned in the scope of claims (See Note) and other inventions. In cases where the invention first mentioned in the scope of claims have any special technical feature, an invention having the same or corresponding special technical feature to said special technical feature meets the requirements of unity of invention. On the other hand, the invention first mentioned in the scope of claims does not have any special technical feature, all other inventions are considered not to meet the requirements of unity of invention.

However, inventions that meet certain requirements shall be the subject of the examination as well as the invention that meets the requirements of unity of invention, based on the fact that Article 37 is a provision with the purport of promoting the convenience of applicants, etc. The subject of the examination shall be decided in accordance with “(A) Specific Procedures” described later.

¹ Patent Act Article 29 (1) An inventor of an invention that is industrially applicable may be entitled to obtain a patent for the said invention, except for the following:

- (i) inventions that were publicly known in Japan or a foreign country, prior to the filing of the patent application;
- (ii) inventions that were publicly worked in Japan or a foreign country, prior to the filing of the patent application; or
- (iii) inventions that were described in a distributed publication, or inventions that were made publicly available through an electric telecommunication line in Japan or a foreign country, prior to the filing of the patent application.

(Note) The invention of claim 1. If matters specifying the invention of claim 1 are expressed by alternatives, it is, in principle, the invention understood by choosing the first alternative. However, for an invention relating to a chemical substance that is described by Markush-type, etc., the invention that is understood by choosing an appropriate alternative in consideration of the description of working examples, etc. shall be deemed to be the invention first mentioned.

(A) Specific Procedures

The subject of the examination shall be decided based on “special technical features” and “examination efficiency.”

(A-1) Decision of subject of the examination based on special technical features The subject of the examination based on special technical features is decided according to following procedures (1) to (4).

(1) It is determined whether the invention first mentioned in the scope of claims has any special technical feature.

(2) In cases where the invention first mentioned in the scope of claims does not have any special technical feature, it is determined whether the invention of the claim to which the smallest claim number is attached among inventions of claims in the same category that include all matters specifying the invention (See Note 1) first mentioned in the scope of claims has any special technical feature.

(Note 1) Cases where “including all matters specifying the invention” of an invention shall include the cases where other matters specifying the invention are attached to said invention, the cases where part or all of matters specifying the invention was subordinate-conceptualized in respect of said invention, the cases where the invention are specified by numerical ranges, those are further limited., etc.

(3) In cases where an claimed invention for which whether there is any special technical feature has already been determined has no special technical feature, whether there is any special technical feature shall be determined with respect to a claimed invention with the smallest claim number among claimed inventions in the same category that include all matter specifying the claimed invention for which whether there is any special technical feature has been determined immediately before (See Note 2). This procedure is repeated until any special technical feature is found or there is no other claimed invention in the same category that includes all matters specifying the claimed invention for which whether there is any special technical feature has been determined immediately before.

(Note 2) It is not required to determine whether there is a special technical feature anymore in cases where the claimed inventions for which whether there is any special technical feature is to be determined is an invention to which a technical feature with low technical relevance is added to claimed invention which whether there is any special technical feature has been determined immediately before, and a specific problem to be solved by the invention understood by said technical feature also has little relevance.

(4) In cases where any special technical feature is found in any of the procedures (1) - (3), the invention for which whether there is any special technical feature has already been determined (a), and the invention having any special technical feature which is the same as or corresponding to the special technical feature found (b), shall be the subject of the examination. In cases where no special technical feature is found in any of the procedures (1) - (3), inventions for which whether there is any special technical feature has already been determined shall be the subject of the examination.

In the above procedure, if a matter specifying an invention of claims is expressed by alternatives in a claim (including multiple dependent claims), such a claim is treated as if each invention understood by choosing each alternative is described as a separate claim in the order of said alternatives. In determining if the claim includes all matters specifying an invention, it doesn't matter whether a claim is formally an independent claim or a dependent claim.

In addition, in cases where an invention for which any special technical feature has been found has several different special technical features in any of the said procedures, the examiner shall choose one of those special technical features and an invention having a special technical feature same as or corresponding to said special technical feature shall be the subject of the examination.

(A-2) Decision of subject of the examination based on examination efficiency If it is efficient to examine an invention together with those that became the subject of the examination in line with "(A-1) Decision of Subject of the Examination based on Special Technical Features" (hereinafter referred to as "inventions that became the subject of the examination based on special technical features"), it shall be added to the subject of the examination. Whether it is efficient to examine an invention collectively shall be determined by comprehensively taking into consideration matters described in the description, etc., common general knowledge as of filing, and perspectives of prior art searches.

For example, inventions that fall under (1) or (2) below shall be added to the subject of the examination, as it is efficient to examine it together with inventions that became the subject of the examination based on special technical feature.

(1) Inventions in the same category that include all matters specifying the invention of the invention first mentioned in the scope of claims.

However, inventions shall be excluded if (i) the problem to be solved by the invention first mentioned in the scope of claims (Note 1) and a specific problem to be solved understood by technical features added to said invention have little relevance, or (ii) technical features of the invention first mentioned in the scope of claims (Note 2) and technical features added to said invention have low technical relevance. The relevance in (i) and the technical relevance in (ii) shall be determined by taking into consideration matters described in the description, etc., common general knowledge (Note 3) as of filing and perspectives of prior art searches.

(Note 1) The problem to be solved by the invention first mentioned in the scope of claim shall be identified by taking into consideration matters described in the description, etc. and common general knowledge (Note 3) as of filing. In cases where several problems are identified, one problem shall be identified by giving consideration to the problem to be solved by the other inventions that became the subject of the examination in line with "(A-2) Decision of Subject of the Examination based on Special Technical Features" In case where identified problems are now-resolved and well-known, the problems shall be identified in the same way.

(Note 2) In cases where the invention first mentioned in the scope of claim belongs to the common general knowledge (Note 3), technical features of the invention first mentioned in the scope of claims shall be determined by taking into consideration technical features of other inventions that became the subject of the examination in line with "(A-1) Decision of Subject of the Examination based on Special Technical Features".

(Note 3) The common general knowledge refers to technologies generally known to a persons skilled in the art (including well-known or commonly used art) or matters clear from empirical rules.

(Explanation)

Inventions in the same category that include matters specifying the invention of the invention first mentioned in the scope of claims generally belong to a technical field same as or associated with the invention first mentioned the scope of claims and a prior art search can be conducted from a similar perspective in many cases. Therefore, those inventions shall be, in principle, added to the subject of the examination as inventions on which it is efficient to make an examination together with the invention first mentioned in the scope of claims.

However, an invention that falls under (i) or (ii) above may be excluded from the subject of the examination, since it requires a prior art search from different perspectives and it is not efficient to make an examination collectively.

(2) An invention for which an examination may be made without substantially conducting additional prior art searches and making a determination as a result of examining inventions that became the subject of the examination based on special technical features.

For example, an invention that falls under any of (i) –(v) below is usually deemed as an invention for which an examination may be made without substantially conducting additional prior art searches and making a determination.

(i) Other inventions that differ only in terms of expression from inventions that became the subject of the examination based on special technical features.

(ii) Other inventions which added, deleted or replaced well-known or commonly used art with respect to inventions that became the subject of the examination based on special technical features, which does not produce any new effects.

(iii) In cases where it has been found that an invention has no novelty or inventive step as a result of examining inventions that became the subject of the examination based on special technical features, other inventions which have wider concept that cover said invention.

(iv) In cases where a point having some matters specifying the invention has been found out to have novelty and inventive step as a result of examining inventions that became the subject of the examination based on special technical features, other inventions that include said matters specifying the invention.

(v) Other inventions whose difference from inventions that became the subject of the examination based on special technical features is a “designs modified along specific application of techniques” or “optimally or preferably modified numerical ranges” and it is easily determined said change does not produce any advantageous effects in comparison with the cited inventions (Note 4).

(Note 4) Referred inventions as ones that fall under each item of Article 29(1) with respect to inventions that became the subject of the examination based on special technical features and it does not include inventions that had not been published as of filing.

2.3 How is a unifying technical relation determined between the inventions or groups of inventions claimed, or when are the inventions or the groups of inventions claimed so distinct that they do not fulfil the unity requirement?

Answer: An examination for unity of invention is carried out by determining whether two or more inventions have the same or corresponding special technical features among them. In other words, it is determined by whether one special technical feature of one invention is the same or corresponding special technical features of all other inventions. If there is no same or corresponding special technical feature, the requirements of unity of invention are not fulfilled.

2.4 Does the examiner enjoy any discretion to deviate from the application of the criteria described above and, if so, in what particular circumstances?

Answer: If it is efficient to examine an invention together with those that became the subject of the examination in line with “(A-1) Decision of Subject of the Examination based on Special Technical Features” (hereinafter referred to as “inventions that became the subject of the examination based on special technical features”), it shall be added to the subject of the examination. Whether it is efficient to examine an invention collectively shall be determined by comprehensively taking into consideration matters described in the description, etc., common general knowledge as of filing, and perspectives of prior art searches.

3. Unity of invention practice in particular cases

3.1 Shall the lack of unity be raised among the claims for a product, a process adapted for the manufacture of said product, a use of said product?

Answer: (1) If a method of producing a product, or product and machine, instrument, device, the other means for producing a product (hereinafter referred to as “production method or production device, etc.”) is suitable for producing “the product,” they have the same or corresponding special technical feature. Even if something other than “the product” is produced by “production method or production device, etc.,” they have the same or corresponding special technical feature, if the “production method or production device, etc.” is suitable for producing “the product.” The word, “the other means” in the above “a machine, instrument, device, the other means for producing a product” is not limited to a machine, instrument and device, but encompasses a catalyst, microorganism and anything else, which acts on other materials, work pieces, etc., and turns them into a product.

(Explanation)

The case where a “production method or production device, etc.” is “suitable” for producing “the product” includes, for example, a case where a special technical feature of “production method or production device, etc.” necessarily causes conversion of raw material into a special technical feature of “the product” (including the product itself). Since a contribution over the prior art made by the special technical feature of “production method or production device, etc.” gives special technical features of “the product,” said contributions over the prior art of the invention made by each of the special technical features are closely related, and thereby they are deemed to have the same or corresponding special technical features.

(2) If a “method of using a product” is suitable for use of “that product,” they have the same or corresponding special technical feature.

(Explanation)

The case where a “method of using a product” is considered to be “suitable” for use of “that product” is, for example, a case where a special technical feature of the “method of using the product” utilizes properties and/or functions particular to a special technical feature of “the product.”

In this case, the contribution over the prior art of the invention, which is made by the special technical feature of “method of using a product,” lies in the utilization of the particular properties and/or functions of the special technical feature of “the product.” Therefore, the contribution over the prior art which is made by each of the special technical features is closely related and both “product” and “the method of using it” have the same or corresponding special technical features.

(3) If a special technical feature of “a product solely utilizing the specific properties of another product” solely utilizes the special technical feature of “another product,” both “a product” and “another product” have the same or corresponding special technical features.

(Explanation)

if a special technical feature of “a product solely utilizing the specific properties of another product” solely utilizes the special technical feature of “another product,” the contribution over the prior art of the invention, which is made by the special technical feature of “a product solely utilizing the specific properties of another product,” lies in the sole utilization of the specific properties of the special technical feature of “another product.” Therefore, the contribution over the prior art of the invention which is made by each of the special technical features is closely related and both “a product” and “another product” have the same or corresponding special technical features.

3.2 Is it at all possible that the lack of unity of invention exists on each of the following cases: (a) within a single claim, (b) among the independent claims, (c) between an independent claim and its dependent claims, (d) among dependent claims of the same independent claim?

Answer: The requirement of unity of invention shall be examined in accordance with the method described in 2.1 and 2.2 regardless of the cases (a) - (d).

3.3 Are there established findings regarding the assessment of unity in particular cases, notably in case of combination of claims of different categories, intermediate and final products, or Markush groupings?

Answer: There are not any assessments of unity in case of combination of claims of different categories. For the case of intermediate and final products and the case of Markush groupings, See 3.4 below.

3.4 Could you explain how unity is assessed in these cases?

in case of intermediate and final products

Answer: In order that an invention related to an intermediate product and another related to the final product have the same or corresponding special technical features, the following requirements (i) and (ii) must be satisfied:

(i) An intermediate and a final product have the same or technically closely related structural element, namely;

(a) the new basic skeleton which are not found in a prior art in chemical structure of the intermediate product is common to that of the final product; or

(b) the chemical structures of both products are technically closely related to each other.

(ii) The intermediate product and the final product are technically related to each other. In other words, the final product is prepared directly from an intermediate product or prepared through a small number of the other new intermediate products that include the same substantial structural element.

Even if the structure is unclear, an intermediate product and a final product may have the same or corresponding special technical features in some cases. For example, an intermediate with a clear structure and a final product with an unclear constitution structure or an intermediate product with an unclear constitution structure and a final product with an unclear constitution structure sometimes may have the same or corresponding special technical features.

In this case, in order to have the same or corresponding special technical features, there must be sufficient evidence showing that the structures of the intermediate product and the final product are technically closely related to each other; for example, the intermediate product includes the same substantial component as that of the final product or the intermediate product incorporates the substantial component in the final product.

In the case where the individual intermediate products, which are used in different processes to prepare one final product, include the same substantial component, the inventions related to the final product and the individual intermediates have the same or corresponding special technical features because the substantial structural elements are the same or corresponding special technical features.

In cases where the intermediate products and the final products are defined in claims so as to constitute a group of chemical compounds, the respective intermediate compounds must correspond to one of the final products defined in the claims. However, since some of the final products may not have a corresponding intermediate compound, the two groups do not necessarily correspond to each other completely.

Showing that the intermediate products has other effects or exhibits other activities in addition to being used to prepare the final product does not affect the examination of unity of invention.

in case of Markush groupings

Answer: Where a claim is described in the Markush-Type, the unity of invention in the claim is examined by finding out whether its alternatives have the same or corresponding special technical features.

Especially, where a claim described in the Markush-Type is related to a compound written in an alternative form, each alternative has the same or corresponding special technical features, if the following (i) and (ii) are satisfied:

- (i) All alternatives have a common property or activity; and
- (ii) (a) a common chemical structure is present, i.e., a significant structural element is shared by all of the alternatives, or
- (b) in cases where the common chemical structure cannot be the unifying criteria, all alternatives belong to a class of chemical compounds recognized as single in the art to which the invention pertains.

In paragraph (ii)(a) above, “a significant chemical structure element is shared by all of the alternatives” refers to cases where the chemical compounds share a common chemical structure which occupies a large portion of their structures, or if the compounds have in common only a small portion of their structures, cases where the commonly shared structure constitutes a structurally distinctive portion in view of prior art. The structural element may be a single component or a combination of individual components linked together.

When dealing with alternatives in the Markush-Type, if at least one of the Markush alternatives is found in the prior art, the question of unity of invention shall be reconsidered.

In paragraph (ii)(b) above, the word “a class of chemical compounds recognized as single” means that there is an expectation from the knowledge in the art that members of the class will behave in the same way in the context of the claimed invention. In other words, each member could be substituted for the other, with the expectation that the similar intended result would be achieved.

4. Procedural consequences in cases of non-compliance with the unity requirement

4.1 Could you indicate the stages of the procedure in which non-unity objections can be raised?

Answer: It can be raised in the stages of substantive examination. Failure to meet the requirements of unity of invention constitutes a reason for refusal, but does not constitute a reason for invalidation. It is because the requirements of unity of invention are a provision established for the convenience of applicants, third parties and the Japan Patent Office. Lack of unity of invention does not mean a substantial defect in the inventions in comparison with other reasons for refusal but mere a formal defect that the single application should have been made as two or more applications.

4.2 What is the impact of a non-unity objection on the subject matter to be searched/examined?

Answer: In light of what is indicated in (A) above, if there is a claimed invention that does not become the subject of the examination, a notice of reasons for refusal is notified on the grounds of violation of the requirements of unity of invention.

“A subject of the examination on requirements other than the requirements of unity of invention” is merely referred to as “a subject of the examination.”

4.3 How can the applicant react in case a non-unity objection has been raised?

Answer: Applicants shall amend or divide the claims in order to make the claimed invention form a single general inventive concept.

4.4 What are the legal consequences, in the different stages of the procedure, if the unity requirement is not met by the applicant?

Answer : Failure to meet the requirements of unity of invention constitutes a reason for refusal, but does not constitute a reason for invalidation. It is because the requirements of unity of invention are a provision established for the convenience of applicants, third parties and the Japan Patent Office. Lack of unity of invention does not mean a substantial defect in the inventions in comparison with other reasons for refusal but mere a formal defect that the single application should have been made as two or more applications.

5. Offices communications regarding unity

5.1 Could you attach some actual communications from your Office raising non-unity objections, including the corresponding reasoning?

Answer: Provide the following example of reason for refusal.

1. Decision of subject of the examination based on special technical features

A special technical feature is found in the invention claimed in claim 1.

On the other hand, the invention claimed in claim 2 has the technical feature “A” which is the same as the technical feature the invention claimed in claim 1 has. However, the technical feature “A” is not a special technical feature because the technical feature “A” does not contribute to the prior art of the relevant inventions in light of disclosure of the cited document “D1.” Further, no other the same or corresponding special technical features can be found between the inventions claimed in claim 1 and 2.

2. Decision of subject of the examination based on examination efficiency

The invention claimed in claim 2 is not in the same category that includes all matters specifying the invention first claimed in claim 1. And the invention claimed in claim 2 is not an invention for which an examination may be made without substantially conducting additional prior art searches and making a determination as a result of examining inventions that became the subject of the examination based on special technical features. Further, there is no any other reason to decide that it is efficient to examine the invention claimed in claim 2 together with invention claimed in claim 1.

Therefore, the invention claimed in claim 2 shall not become the subject of the examination on requirements other than the requirements of unity of invention.

ANNEX 2.3 KIPO

Joint questionnaire on unity of invention

KIPO's answers

1. Description of the applicable legal framework

1.1 What are the legal provisions to be applied in your Office to the assessment of unity of invention?

Answer: The following provisions are applied to assess unity of invention in KIPO, Article 45 of the Patent Act, Article 6 of the Enforcement Decree of the Patent Act, the Chapter 5 of the Part II of the Patent Examination Guideline.

1.2 Does your Office acting as ISA/IPEA under the PCT apply a different procedure as opposed to that applicable to national applications?

Answer: KIPO, as an ISA/IPEA under the PCT, applies the similar procedure with national applications on unity of invention. The only difference is that, when KIPO acts as ISA/IPEA, the applicants could ask KIPO to search the claims lacking unity of invention by paying additional fee.

1.3 Please describe the grounds/considerations underlying the requirement of unity of invention in your Office.

Answer: The provision of Article 45 of the Patent Act intends to promote convenience and balance among applicants, third parties and the Korean Intellectual Property Office by allowing applicants to file a single application on inventions closely related in terms of technology.

For applicants, it would be beneficial in terms of lower patent fees and patent right management if as many claims and inventions as possible can be filed in one patent application. However, filing one invention in one application would be more convenient for third parties considering the fairness of application procedures, observation burden on patent rights and use of applications as prior art. Meanwhile, the Korean Intellectual Property Office would prefer the narrower scope of one patent application considering the workload for examination practices such as classification and prior art search. Therefore, this provision can be considered to have been introduced to make a balance on the interests of applicants who prefer including multiple inventions in one application as well as third parties and the Korean Intellectual Property Office who would get disadvantaged if filing multiple inventions in one application is allowed.

1.4 Could you attach a copy of the provisions referred to above (in English)?

Answer: a) Article 45 of the Patent Act (Scope of One Patent Application)

(1) A patent application shall related to one invention only or a group of inventions so linked as to form a single general inventive concept may be the subject of one patent application.

(2) The requirements for one patent application under paragraph (1) shall be prescribed by Presidential Decree

b) Article 6 of the Enforcement Decree of the Patent Act (Requirements for Single Patent Application for a Group of Inventions)

A single patent application for a group of inventions as prescribed in the Article 45(1) of the Act shall meet the following requirements:

(1) The inventions described in the application shall have mutual relationship in adopted technology; and

(2) The inventions described in the application shall have the same or corresponding technological features. In such cases, the technological features shall be improved, considered as a whole, when compared with prior arts.

c) The Guidelines for Patent Examination

See Examination Guideline Chapter 5 of the Part II at

http://www.kipo.go.kr/kpo/user.tdf?a=user.english.html.HtmlApp&c=92006&ca tmenu=ek03_06_01

2. Description of the practice and method for the assessment of unity of invention

2.1 Could you describe the Office's practice regarding the application of those provisions, i.e. what are the criteria to assess whether an application meets the unity requirement?

Answer: Whether inventions fall to “a group of inventions so linked as to form a single general inventive concept(hereinafter referred to as ‘unity of invention’)” under Article 45(1) of the Patent Act shall be determined based on technical correlation of the inventions disclosed in each claim since Article 6 of the Enforcement Decree of the same act stipulates that the inventions described in the application shall have the same or corresponding

technological features. 「The special technical features」 refer to the improved features, considered as a whole, when compared with prior arts.

“The special technical features” is the concept specially suggested to determine the unity of inventions and shall involve novelty and inventive step compared to prior arts disclosed before the concerned patent application is filed. The unity of invention shall be determined after considering all the inventions as a whole.

In this context, special technical features of the inventions do not need exactly the same. For example, if the special technical feature of elasticity in one claim is a spring, the special technical features of elasticity in another claim can be a rubber block.

Whether the unity of inventions is satisfied or not can be determined before searching prior arts in some cases, but in general, shall be determined after considering prior arts.

For example, in claims disclosing inventions A+X and A+Y, since all the claims have the invention A in common, it could be determined a priori before searching the prior arts that the claims involve the unity of inventions. However, where prior arts related to A has been searched, each claim does not have the same or corresponding special technical features distinctive from the prior arts. Therefore, the claims shall be deemed to lack the unity of invention a posteriori.

A group of inventions may include multiple independent claims from the same category within one application or may include multiple independent claims from different categories within one application.

Also, even one claim may include inventions out of the scope of one group of inventions, failing to meet the unity of inventions.

Whether one group of inventions forms a single general inventive concept is not related to whether one group of inventions is claimed in separate claims or alternatively claimed in one claim.

2.2 How are these criteria applied in practice?

Answer: Basically, unity of inventions shall be determined in the following order.

(1) A first invention shall be chosen and the special technical features of the first invention which serves as improvement over prior arts shall be specified by comparison with the prior arts related to the invention. It shall be noted that even a single invention may include multiple special technical features depending on the technical content of the invention.

In this context, the first invention refers to the main invention and has nothing to do with the order of claims.

(2) A second invention shall be chosen and the special technical features of the first invention which serves as improvement over prior arts shall be specified by comparison with the prior arts related to the invention. It shall be noted that even a single invention may include multiple special technical features depending on the technical content of the invention.

(3) The technical correlation between the first invention and the second invention shall be checked by determining whether the special technical features of the first invention and the special technical features of the second invention are the same or corresponding. If there exist the special technical features which are the same or corresponding between the two inventions, it can be concluded that the inventions belong to the single general inventive concept.

(4) Through the steps of (2) and (3) above, whether a single general inventive concept is formed shall be determined based on the technical correlation under Article 6 of the Enforcement Decree of the Patent Act.

(5) "The invention subject to examination" shall be designated based on the first invention. In principle, the first invention as well as an invention belonging to the technical group(the first technical group) which forms a single general inventive concept with the first invention shall be prioritized for the invention subject to examination. However, an invention which is not included in any technical group because of lack of improvement over prior arts, but whose examination is substantially finished in the procedure of determination on unity of inventions shall be included.

Moreover, an invention which can be examined without additional efforts because of mere differences in expressions such as different categories from the inventions belonging to the first technical group can be included to the invention subject to examination.

(6) Examination on patentability except for unity of inventions shall be conducted for "the invention subject to examination".

When notifying a ground for rejection citing the violation of the requirement of unity of inventions, an examiner shall notify the ground of rejection citing the violation of the requirement of unity of inventions on all the claims. When notifying a ground for rejection citing the violation on unity of inventions, an examiner shall notify the ground for rejection by clearly specifying that the

concerned invention does not share the same or corresponding special technical features as those that characterize the first technical group.

Unity of invention can be also determined based on whether the second invention includes the same or corresponding special technical features as the first invention after specifying the special technical features of the first invention in the above-mentioned step (1) and the second invention without conducting any additional prior art search in the steps (2) and (3).

Also, for the convenience and efficiency of examination, following procedure is also available.

- (1) Finding the common special technical features of the inventions
- (2) Determining whether such features make over prior arts
- (3) If the common features are not considered to be improved compared to prior arts, unity of inventions shall be deemed lacking.

Meanwhile, it shall be noted that lack of unity of inventions just constitutes a ground for rejection, not the actual ground for invalidation. In other words, where lack of unity of invention is deemed obvious, an examiner shall notify a ground for rejection so that an application can make amendments. However, an examiner does not need to force an applicant to make amendments or file a divisional application by notifying a ground for rejection citing the violation of unity of inventions based on the literal approach. Especially, even if unity of invention is lacking, where examination can be terminated without any additional examination efforts since no more prior art search is needed (for example: where novelty and an inventive step of the entire scope of claims can be denied based on the searched prior art), an examiner may not notify a ground for rejection citing the violation of unity of inventions.

2.3 How is a unifying technical relation determined between the inventions or groups of inventions claimed, or when are the inventions or the groups of inventions claimed so distinct that they do not fulfil the unity requirement?

Answer: To determine a unifying technical relation between the inventions or groups of inventions claimed is to judge whether these claims contain one or more of the same or corresponding special technical features.

2.4 Does the examiner enjoy any discretion to deviate from the application of the criteria described above and, if so, in what particular circumstances?

Answer: An examiner does not need to force an applicant to make amendments or file a divisional application by notifying a ground for rejection

citing the violation of unity of inventions based on the literal approach. Especially, even if unity of invention is lacking, where examination can be terminated without any additional examination efforts since no more prior art search is needed (for example: where novelty and an inventive step of the entire scope of claims can be denied based on the searched prior art), an examiner may not notify a ground for rejection citing the violation of unity of invention.

In other words, the examiner may examine inventions lacking unity of invention together under the circumstance that it takes little or no additional search effort.

3. Unity of invention practice in particular cases

3.1 Shall the lack of unity be raised among the claims for a product, a process adapted for the manufacture of said product, a use of said product?

Answer: The lack of unity may not be raised among the claims for a product, a process adapted for the manufacture of said product, a use of said product.

If a process adapted for manufacture of a product is appropriate for the manufacture of the product, the requirement for unity of invention is satisfied.

3.2 Is it at all possible that the lack of unity of invention exists on each of the following cases: (a) within a single claim, (b) among the independent claims, (c) between an independent claim and its dependent claims, (d) among dependent claims of the same independent claim?

Answer: It is possible that the lack of unity of invention exists within a single claim, among the independent claims.

There is no lack of unity of invention among dependent claims of the same independent claim, between an independent claim and its dependent claims unless there are special circumstances, e.g. the independent claim lacks unity of invention.

3.3 Are there established findings regarding the assessment of unity in particular cases, notably in case of combination of claims of different categories, intermediate and final products, or Markush groupings?

3.4 Could you explain how unity is assessed in these cases?

Answer:

(1) Intermediate and End Product

The term “intermediate” refers to an intermediate material or a starting material. Such intermediate materials or starting materials have the capacity of losing their own characteristics according to physical or chemical changes and being used to produce end products.

Where the below-mentioned ① and ② are satisfied, unity of inventions between intermediate materials and end products is deemed to be met.

① Major structural elements between intermediate materials and end products shall be identical. In other words,

(i) the basic chemical structure between intermediate materials and end products is the same, or

(ii) the basic chemical structure between intermediate materials and end products is technically closely related and intermediate materials provide major structural element to end products.

② Intermediate materials and end products shall be technically closely related. In other words, end products are directly produced from intermediate materials, or the major structural elements are manufactured via a few identical intermediate materials.

Where major structural elements of intermediate materials are identical, one application can be filed on more than one different intermediate material used in different processes in order to produce a single end material. However, more than two different intermediate materials used in other structures of end products cannot be filed as one patent application.

In the process of producing end products from intermediate materials, if intermediate materials and end products are separated by an intermediate material which is not novel, such materials cannot be filed as one patent application.

Where intermediate materials and end products are compounds, each intermediate compound shall correspond to one compound claimed in the group of end product compounds. However, since parts of end materials may not have corresponding compounds in intermediate compound group, two groups of compounds do not necessarily correspond to each other, respectively.

(2) Markush-type Claim

Where alternative elements are disclosed in the Markush style in a single claim, if the alternative elements have “corresponding qualities or functions”, unity of inventions is met.

Where the Markush is regarding chemical compound and such elements meet the requirement under Examination Guideline Part II Chapter 4 4.(5), requirement for drafting Markuch claim, the Markush group shall be considered to have corresponding qualities or functions.

Regardless of either more than two alternative elements are disclosed in multiple independent claims or they are disclosed only in a single claim as in the Markush type, criteria of determination on unity of inventions shall be the same.

Once at least one alternative element among the alternatives in the Markush group is determined to lack novelty over prior arts, an examiner shall review unity of inventions.

4. Procedural consequences in cases of non-compliance with the unity requirement

4.1 Could you indicate the stages of the procedure in which non-unity objections can be raised?

Answer: It can be raised in the stages of substantive examination. Lack of unity of inventions just constitutes a ground for rejection, not the ground for invalidation

4.2 What is the impact of a non-unity objection on the subject matter to be searched/examined?

Answer: In general, examiners search and examine only the claims within the “the invention subject to examination” mentioned in 2.2.(5) above.

However, if the examiner may examine other claims as well under the circumstance that it takes little or no additional search effort.

4.3 How can the applicant react in case a non-unity objection has been raised?

Answer : Applicants shall restrict the claims to a single general inventive concept. For the removed inventions, the applicant may file divisional applications.

4.4 What are the legal consequences, in the different stages of the procedure, if the unity requirement is not met by the applicant?

Answer : Lack of unity of inventions just constitutes a ground for rejection, not the ground for invalidation.

5. Offices communications regarding unity

5.1 Could you attach some actual communications from your Office raising non-unity objections, including the corresponding reasoning?

Answer : Here is a sample OA regarding non-unity objections

Cited document : patent publication KR10-0000-000000(0000.00.00.)

Technical feature of claims 1-13 (Invention #1) : inducing space filter matrix by producing space filter matrix using repeated matrix inversion

Technical feature of claims 14-26 (Invention #2) : inducing space filter matrix by producing pseudo inverse-matrix of channel matrix using repeated rotating matrix calculation

Technical feature of claims 27-37 (Invention #3) : inducing space filter matrix by decomposing channel matrix

Three inventions mentioned above share the technical feature that the space filter matrix is produced from the channel matrix. However, it is not improved compared to the prior art described in the cited document (See pp.395, Fig.3) and the three inventions don't include another same or corresponding technical feature. Therefore, it is considered that the inventions don't form a single general inventive concept.

※ This application consists of three groups of invention. Please note that the examiner examined only the first group.

ANNEX 2.4 SIPO

JOINT QUESTIONNAIRE ON UNITY OF INVENTION --SIPO'S SAMPLE ANSWERS

1. Description of the applicable legal framework

1.1 What are the legal provisions to be applied in your Office to the assessment of unity of invention?

Answer: The following provisions are applied to assess unity of invention in SIPO, the first paragraph of Article 31 of the Patent Law, Rule 34 of the Implementing Regulations of the Patent Law, the Chapter 6 and the Chapter 10 of the Part II of the Guidelines for Patent Examination.

1.2 Does your Office acting as ISA/IPEA under the PCT apply a different procedure as opposed to that applicable to national applications?

Answer: SIPO acting as ISA/IPEA under the PCT applies the similar procedure with national applications on unity of invention. There is only one different provision. When SIPO acts as ISA/IPEA, the applicants could ask SIPO to search the claims lacking unity of invention by paying additional fee.

1.3 Please describe the grounds/considerations underlying the requirement of unity of invention in your Office.

Answer: The main reasons for the requirement of unity for patent applications consist in the following, (a) economic reason: in order to prevent an applicant from obtaining patent protection for several diverse inventions or utility models by paying for one patent; and (b) technical reason: in order to facilitate the classification, search and examination of a patent application. (the section 2.1.1 of the Chapter 6, the Part II of the Guidelines for Patent Examination)

1.4 Could you attach a copy of the provisions referred to above (in English)?

Answer: a) The first paragraph of Article 31 of the Patent Law

An application for an invention patent or utility model patent shall be limited to one invention or utility model. Two or more inventions or utility models embodied in a single general invention concept may be handled with one application.

b) The Rule 34 of the Implementing Regulations of the Patent Law

Two or more inventions or utility models belonging to a single general inventive concept which may be filed as one application in accordance with the provision of Article 31, paragraph one of the Patent Law shall be technically inter-related and

contain one or more of the same or corresponding special technical features. The expression "special technical features" shall mean those technical features that define a contribution which each of those inventions or utility models, considered as a whole, makes over the prior art.

c) The Guidelines for Patent Examination

Chapter6 Part2

2. Unity of Invention

2. 1 Basic Concept of Unity

2.1.1 Requirement of Unity

Unity means that a patent application for invention or utility model shall be limited to one invention or utility model. Two or more inventions or utility models belonging to a single general inventive concept may be filed as one application. That is, where there are several inventions or utility models in one application, the application is acceptable only if all the inventions or utility models are so linked as to form a single general inventive concept. This is the requirement of unity of a patent application.

The main reasons for the requirement of unity for patent applications consist in the following:

(1) economic reason: in order to prevent an applicant from obtaining patent protection for several diverse inventions or utility models by paying for one patent; and

(2) technical reason: in order to facilitate the classification, search and examination of a patent application.

Lack of unity does not have prejudice to the validity of a patent. Therefore, lacking unity shall not be taken as a ground to invalidate a patent.

2. 1.2 General Inventive Concept

Rule 34 provides that two or more inventions or utility models belonging to a single general inventive concept which may be filed as one application shall be technically interrelated and contain one or more of the same or corresponding special technical features, wherein the expression "special technical features" shall mean those technical features that define a contribution which each of the inventions or utility models, considered as a whole, makes over the prior art.

Rule 34 establishes an approach to the determination of whether or not two or more inventions or utility models claimed in an application belong to a single general inventive concept. In other words, two or more inventions belonging to a single general inventive concept shall be technically interrelated. The interrelationship

between the inventions is reflected in their respective claims in the form of the same or corresponding special technical features.

Rule 34 also defines the meaning of the expression “special technical features”. It is a concept specifically proposed for the evaluation of unity of a patent application. Special technical features shall be understood as the technical features that define a contribution which the invention makes over the prior art, i. e., the technical features which make the invention, as compared with the prior art and considered as a whole, have novelty and involve an inventive step.

Therefore, the expression “belonging to a single general inventive concept” referred to in Article 31. 1 means having the same or corresponding special technical features.

2.2 Examination of Unity

2.2. 1 Principles of Examination

In carrying out examination of unity with regard to a patent application for invention, the following principles shall be followed by the examiner.

(1) To determine whether two or more inventions claimed in an application meet the requirement of unity in accordance with Article 31. 1 and Rule 34 is to determine whether the substantive contents of the technical solution described in the claims belong to a single general inventive concept, that is, to determine whether these claims contain one or more of the same or corresponding special technical features which make the claimed inventions technically interrelated. This determination is made on the basis of the contents of the claims, and, where necessary, the contents of the description and the drawings may be referred to.

(2) The claims of two or more inventions belonging to a single general inventive concept may be drafted in any one of the following six forms of combination; however, two or more independent claims that do not belong to a single general inventive concept cannot be claimed in one application even though they are drafted in one of these forms:

(i) independent claims of the same category for two or more products or processes which cannot be included in one claim;

(ii) an independent claim for a product and an independent claim for a process specially adapted for the manufacture of said product;

(iii) an independent claim for a product and an independent claim for a use of said product;

(iv) an independent claim for a product, an independent claim for a process specially adapted for the manufacture of said product, and an independent claim for a use of said product;

(v) an independent claim for a product, an independent claim for a process specially adapted for the manufacture of said product, and an independent claim for an apparatus specifically designed for carrying out said process; or

(vi) an independent claim for a process and an independent claim for an apparatus specifically designed for carrying out said process.

Wherein, the term “same category” in item (i) means the types of the independent claims are the same, i. e. , the two or more inventions claimed in one patent application only involve either product inventions or process inventions. Several independent claims with the same category can be involved in one patent application as long as having one or more of the same or corresponding special technical features enable the two or more product inventions or process inventions technically interrelated.

Items (ii) -(vi) relate to the combinations of two or more independent claims of different categories.

In the combination of an independent claim for a product and an independent claim for a process specially adapted for the manufacture of said product, the “specially adapted” process necessarily results in the claimed product which is technically interrelated with the process. However, the expression “specially adapted” is not intended to mean that the product could not also be manufactured by any other process.

In the combination of an independent product claim and an independent claim for its use, the use must be derived from the special properties of the product, with technical interrelationship being present between the product and the use.

As for the combination of an independent claim for a process and an independent claim for an apparatus specifically designed for carrying out the process, the “specifically designed” apparatus shall not only be capable of carrying out the process, but the contribution the apparatus makes over the prior art shall correspond to that made by the process. However, the expression “specifically designed” does not mean that the apparatus could not be used to carry out other processes, nor that the process could not be carried out by using other apparatus.

Whether the independent claims of different categories are drafted by way of one making reference to the other is just a matter of form, which does not affect the determination of unity. For example, an independent claim for a process specially adapted for the manufacture of product A may either be drafted as “Process for the manufacture of product A of claim 1,...” or be drafted as “Process for the manufacture of product A,...”

(3) Enumerated above are the six examples of combination of two or more independent claims in the same or different categories which can be included in one application and the appropriate drafting order thereof. However, these six combinations are not exhaustive. In other words, it is possible to use other kinds of combination other than those mentioned above, provided that the claims belong to a single general inventive concept.

(4) The determination of whether two or more inventions belong to a single general inventive concept shall be made without regard to whether the inventions are claimed in separate independent claims or as alternatives within a single claim. In either case, the same criteria shall be applied to determine whether there is unity. The latter case often occurs in Makush claims. For the examination of unity of invention with regard to a Makush claim, Chapter 10, Section 8. 1 of this Part shall apply. Moreover, the order of the claims shall not affect the determination of unity.

(5) Generally, the examiner need only consider unity among the independent claims, and no objection of lack of unity shall be raised as between an independent claim and its dependent claims. However, where a claim appears to be dependent in its form but actually is independent, it shall be examined as to whether it meets the requirement of unity.

Where an independent claim cannot be approved for lack of novelty or inventive step, it is then necessary to consider whether its dependent claims satisfy the requirement of unity.

(6) For some applications, the question of unity may be decided before search of the prior art; but for some other applications, the question of unity may be decided only after taking the prior art into consideration. Where the different inventions contained in an application obviously fails to belong to a single general inventive concept, the examiner may decide that the application does not meet the requirement of unity before a search is conducted. For example, the application contains two independent claims respectively of a herbicide and a mower. Because no same or corresponding technical features exist between the two claims, and thus it is impossible for them to have any same or corresponding special technical feature, it is obvious that there is no unity between them, which conclusion can be made before a search is conducted. However, since the special technical feature is to define the contribution over the prior art and to be compared with the prior art, it can be identified only after considering the state of the art. In this regard, for many applications the determination of unity can be made only after search.

Where, after the comparison of an application with the prior art, the novelty or inventive step of the first independent claim of the application is denied, it shall be redetermined as to whether the rest of the independent claims belong to a single general inventive concept.

Chapter10 Part2

8. Unity of Chemical Invention

8. 1 Unity of Markush Claim

8. 1. 1 Basic Principle

Where a single claim of an application is defined by a number of alternative elements, the “Markush” claim is formed. The Markush claim shall also comply with the provisions on unity as provided for in Article 31. 1 and Rule 34. If the alternative elements in a Markush claim possess similar nature, they shall be regarded as technical-related and having the same or corresponding special technical features, and the claim may be considered as meeting the requirements of unity. Such alternative elements are called Markush elements.

Where the Markush elements are for alternatives of compounds, they shall be regarded as being of a similar nature, and at the same time the Markush claim possesses unity if they meet the following standards:

(1) all alternative compounds possess a common property or activity; and

(2) all alternative compounds possess a common structure, which constitutes the distinguishing feature between the compounds and those in the prior art, and is essential to the common property or activity of the compounds of general formula, or under the circumstances that they do not have a common structure, all of the alternative elements belong to the same class of compounds recognized in the technical field to which the invention pertains.

A “recognized class of compounds” means there is an expectation from the knowledge in the art that members of the class belong to the same class of compounds with the same performance in the context of the claimed invention, i. e. , each member may be substituted by another, with the expectation that the same intended result will be achieved.

8.2 Unity Between Intermediate and Final Product

An application relating to an intermediate shall also comply with the provisions on unity as provided for in Article 31. 1 and Rule 34.

8.2. 1 Basic Principle

(1) Unity exists between an intermediate and a final product if the following two conditions are simultaneously met:

(i) the intermediate and the final product have the same basic structure unit, or their chemical structures are technically closely related, and the basic structure unit of the intermediate is incorporated into the final product;

(ii) the final product is prepared or separated directly from the intermediate.

(2) For several processes for preparing the same final product from the different intermediates, if these different intermediates possess the same basic structure unit, these processes may be claimed for protection in one application.

2. Description of the practice and method for the assessment of unity of invention

2.1 Could you describe the Office's practice regarding the application of those provisions, i.e. what are the criteria to assess whether an application meets the unity requirement?

Answer: 1.About the "General Inventive Concept"

Rule 34 provides that two or more inventions or utility models belonging to a single general inventive concept which may be filed as one application shall be technically interrelated and contain one or more of the same or corresponding special technical features, wherein the expression "special technical features" shall mean those technical features that define a contribution which each of the inventions or utility models, considered as a whole, makes over the prior art.

Rule 34 establishes an approach to the determination of whether or not two or more inventions or utility models claimed in an application belong to a single general inventive concept. In other words, two or more inventions belonging to a single general inventive concept shall be technically interrelated. The interrelationship between the inventions is reflected in their respective claims in the form of the same or corresponding special technical features.

Rule 34 also defines the meaning of the expression "special technical features". It is a concept specifically proposed for the evaluation of unity of a patent application. Special technical features shall be understood as the technical features that define a contribution which the invention makes over the prior art, i. e., the technical features which make the invention, as compared with the prior art and considered as a whole, have novelty and involve an inventive step.

Therefore, the expression "belonging to a single general inventive concept" referred to in Article 31. 1 means having the same or corresponding special technical features.

(the section 2.1.1 of the Chapter 6, the Part II of the Guidelines for Patent Examination)

2. About the “Principles of Examination”

In carrying out examination of unity with regard to a patent application for invention, the following principles shall be followed by the examiner.

(1) To determine whether two or more inventions claimed in an application meet the requirement of unity in accordance with Article 31. 1 and Rule 34 is to determine whether the substantive contents of the technical solution described in the claims belong to a single general inventive concept, that is, to determine whether these claims contain one or more of the same or corresponding special technical features which make the claimed inventions technically interrelated. This determination is made on the basis of the contents of the claims, and, where necessary, the contents of the description and the drawings may be referred to.

(2) The claims of two or more inventions belonging to a single general inventive concept may be drafted in any one of the following six forms of combination; however, two or more independent claims that do not belong to a single general inventive concept cannot be claimed in one application even though they are drafted in one of these forms:

(i) independent claims of the same category for two or more products or processes which cannot be included in one claim;

(ii) an independent claim for a product and an independent claim for a process specially adapted for the manufacture of said product;

(iii) an independent claim for a product and an independent claim for a use of said product;

(iv) an independent claim for a product, an independent claim for a process specially adapted for the manufacture of said product, and an independent claim for a use of said product;

(v) an independent claim for a product, an independent claim for a process specially adapted for the manufacture of said product, and an independent claim for an apparatus specifically designed for carrying out said process; or

(vi) an independent claim for a process and an independent claim for an apparatus specifically designed for carrying out said process.

Wherein, the term “same category” in item (i) means the types of the independent claims are the same, i. e. , the two or more inventions claimed in one patent application only involve either product inventions or process inventions. Several independent claims with the same category can be involved in one patent

application as long as having one or more of the same or corresponding special technical features enable the two or more product inventions or process inventions technically interrelated.

Items (ii) -(vi) relate to the combinations of two or more independent claims of different categories.

In the combination of an independent claim for a product and an independent claim for a process specially adapted for the manufacture of said product, the “specially adapted” process necessarily results in the claimed product which is technically interrelated with the process. However, the expression “specially adapted” is not intended to mean that the product could not also be manufactured by any other process.

In the combination of an independent product claim and an independent claim for its use, the use must be derived from the special properties of the product, with technical interrelationship being present between the product and the use.

As for the combination of an independent claim for a process and an independent claim for an apparatus specifically designed for carrying out the process, the “specifically designed” apparatus shall not only be capable of carrying out the process, but the contribution the apparatus makes over the prior art shall correspond to that made by the process. However, the expression “specifically designed” does not mean that the apparatus could not be used to carry out other processes, nor that the process could not be carried out by using other apparatus.

Whether the independent claims of different categories are drafted by way of one making reference to the other is just a matter of form, which does not affect the determination of unity. For example, an independent claim for a process specially adapted for the manufacture of product A may either be drafted as “Process for the manufacture of product A of claim 1,...” or be drafted as “Process for the manufacture of product A,...”

(3) Enumerated above are the six examples of combination of two or more independent claims in the same or different categories which can be included in one application and the appropriate drafting order thereof. However, these six combinations are not exhaustive. In other words, it is possible to use other kinds of combination other than those mentioned above, provided that the claims belong to a single general inventive concept.

(4) The determination of whether two or more inventions belong to a single general inventive concept shall be made without regard to whether the inventions are claimed in separate independent claims or as alternatives within a single claim. In either case, the same criteria shall be applied to determine whether there is unity. The latter case often occurs in Makush claims. For the examination of unity of invention with regard to a Makush claim, Chapter 10, Section 8. 1 of this Part shall apply. Moreover, the order of the claims shall not affect the determination of unity.

(5) Generally, the examiner need only consider unity among the independent claims, and no objection of lack of unity shall be raised as between an independent claim and its dependent claims. However, where a claim appears to be dependent in its form but actually is independent, it shall be examined as to whether it meets the requirement of unity.

Where an independent claim cannot be approved for lack of novelty or inventive step, it is then necessary to consider whether its dependent claims satisfy the requirement of unity.

(6) For some applications, the question of unity may be decided before search of the prior art; but for some other applications, the question of unity may be decided only after taking the prior art into consideration. Where the different inventions contained in an application obviously fails to belong to a single general inventive concept, the examiner may decide that the application does not meet the requirement of unity before a search is conducted. For example, the application contains two independent claims respectively of a herbicide and a mower. Because no same or corresponding technical features exist between the two claims, and thus it is impossible for them to have any same or corresponding special technical feature, it is obvious that there is no unity between them, which conclusion can be made before a search is conducted. However, since the special technical feature is to define the contribution over the prior art and to be compared with the prior art, it can be identified only after considering the state of the art. In this regard, for many applications the determination of unity can be made only after search.

Where, after the comparison of an application with the prior art, the novelty or inventive step of the first independent claim of the application is denied, it shall be redetermined as to whether the rest of the independent claims belong to a single general inventive concept.

(the section 2.2.1 of the Chapter 6, the Part II of the Guidelines for Patent Examination)

2.2 How are these criteria applied in practice?

Answer: Prior to the search of two or more inventions claimed in one application, whether or not they obviously lack unity shall be firstly determined. If the inventions do not have any same or corresponding technical feature, or the same or corresponding technical features they have are customary means in the art, then it is impossible for them to have any same or corresponding special technical feature that defines a contribution over the prior art, and therefore the inventions obviously lack unity.

For two or more inventions that do not obviously lack unity, the determination of unity can be made only after search. In this case, the following approach is normally adopted:

(1) compare the subject matter of a first invention with the relevant prior art to

identify the “special technical feature” that defines the contribution which the invention makes over the prior art;

(2) determine whether a second invention contains one or more special technical features which are the same as or correspond to those in the first invention, so as to determine whether these two inventions are technically interrelated; and

(3) if one or more same or corresponding special technical features exist between the inventions, i. e. , the inventions are technically interrelated, it can be concluded that they belong to a single general inventive concept. Conversely, if no technical interrelationship exists between the inventions, it can be concluded that they do not belong to a single general inventive concept and thus it can be determined that there is no unity between them. (the section 2.2.2 of the Chapter 6, the Part II of the Guidelines for Patent Examination)

2.3 How is a unifying technical relation determined between the inventions or groups of inventions claimed, or when are the inventions or the groups of inventions claimed so distinct that they do not fulfil the unity requirement?

Answer: To determine a unifying technical relation between the inventions or groups of inventions claimed is to judge whether these claims contain one or more of the same or corresponding special technical features.

2.4 Does the examiner enjoy any discretion to deviate from the application of the criteria described above and, if so, in what particular circumstances?

Answer: Where all of the technical solutions described in two or more independent claims, between which unity is not present, fall into the technical field in which the examiner is responsible for performing examination and the search fields of them are very close or even overlap to a great extent, the examiner may make search for them together under the circumstance that it takes little or no additional search effort.

3. Unity of invention practice in particular cases

3.1 Shall the lack of unity be raised among the claims for a product, a process adapted for the manufacture of said product, a use of said product?

Answer: According to the section 2(2) of the answer of 2.1, the lack of unity may not be raised among the claims for a product, a process adapted for the manufacture of said product, a use of said product.

3.2 Is it at all possible that the lack of unity of invention exists on each of the following cases: (a) within a single claim, (b) among the independent claims, (c) between an independent claim and its dependent claims, (d) among dependent claims of the same independent claim?

Answer: According to the section 2(4), (5) of the answer of 2.1, it is possible that the lack of unity of invention exists within a single claim, among the independent claims, among dependent claims of the same independent claim.

There is no lack of unity of invention between an independent claim and its dependent claims. (the section 2.2.2.3 of the Chapter 6, the Part II of the Guidelines for Patent Examination)

3.3 Are there established findings regarding the assessment of unity in particular cases, notably in case of combination of claims of different categories, intermediate and final products, or Markush groupings?

Answer: For the case of combination of claims of different categories, please make reference to the section 2(2) of the answer of 2.1. For the intermediate and final products, please make reference to the section 8.2 of the Chapter 10, the Part II of the Guidelines for Patent Examination. For the Markush groupings, please make reference to the section 8.1 of the Chapter 10, the Part II of the Guidelines for Patent Examination.

3.4 Could you explain how unity is assessed in these cases?

Answer: 1.For the case of combination of claims of different categories, please make reference to the section 2(2) of the answer of 2.1.

2. The followings are the basic principals to assess the unity of invention in case of the intermediate and final products,

(1) Unity exists between an intermediate and a final product if the following two conditions are simultaneously met:

(i) the intermediate and the final product have the same basic structure unit, or their chemical structures are technically closely related, and the basic structure unit of the intermediate is incorporated into the final product;

(ii) the final product is prepared or separated directly from the intermediate.

(2) For several processes for preparing the same final product from the different intermediates, if these different intermediates possess the same basic structure unit, these processes may be claimed for protection in one application.

(3)The different intermediates of different structural parts of the same final product shall not be claimed in one application.

3. The followings are the basic principals to assess the unity of invention in case of the Markush groupings,

Where a single claim of an application is defined by a number of alternative elements, the “Markush” claim is formed. The Markush claim shall also comply with the provisions on unity as provided for in Article 31. 1 and Rule 34. If the alternative elements in a Markush claim possess similar nature, they shall be regarded as technical-related and having the same or corresponding special technical features, and the claim may be considered as meeting the requirements of unity. Such alternative elements are called Markush elements.

Where the Markush elements are for alternatives of compounds, they shall be regarded as being of a similar nature, and at the same time the Markush claim possesses unity if they meet the following standards:

(1) all alternative compounds possess a common property or activity; and

(2) all alternative compounds possess a common structure, which constitutes the distinguishing feature between the compounds and those in the prior art, and is essential to the common property or activity of the compounds of general formula, or under the circumstances that they do not have a common structure, all of the alternative elements belong to the same class of compounds recognized in the technical field to which the invention pertains.

A “recognized class of compounds” means there is an expectation from the knowledge in the art that members of the class belong to the same class of compounds with the same performance in the context of the claimed invention, i. e. , each member may be substituted by another, with the expectation that the same intended result will be achieved.

4. Procedural consequences in cases of non-compliance with the unity requirement

4.1 Could you indicate the stages of the procedure in which non-unity objections can be raised?

Answer: It can be raised in the stages of “Preliminary examination”, “the examination as to the substance” and “re-examination”. But lacking unity is not the reason to request for the invalidation of the patent right. (the Rule 44,53,65 of the Implementing Regulations of the Patent Law)

4.2 What is the impact of a non-unity objection on the subject matter to be searched/examined?

Answer: 1. Search on an Application Which Lacks Unity Obviously

Where it can be determined that unity does not exist between the subject matters of an application after the examiner analyzes and studies the claims and description (and the drawings), one of following measures may be taken:

(1) performing search after the applicant makes necessary amendments to eliminate the defect of lack of unity; or

(2) where all of the technical solutions described in two or more independent claims, between which unity is not present, fall into the technical field in which the examiner is responsible for performing examination and the search fields of them are very close or even overlap to a great extent, the examiner may make search for them together under the circumstance that it takes little or no additional search effort. As a result, the examiner may both indicate the defect of the lack of unity and evaluate these independent claims when drafting the Office Action. In this way, the procedure of examination can be accelerated by reducing one Office Action. If one or more independent claims of the application are found to lack novelty or inventive step after search, the applicant may delete these claims rather than make divisional application(s) after receiving the Office Action, thus unnecessary work is avoided by doing so. Moreover, the reference documents which further indicate that unity is not present between the subject matters of the application may be found through such search.

2. Search on an Application Which Lacks Unity Nonobviously

An application that does not obviously lack unity refers to the application in which whether the unity is present between its claimed subject matters can be determined only after the search. The examiner shall perform the search for such an application in a way as follows:

(1) when making a search for the first independent claim, if the examiner finds that the claim is lack of novelty or inventive step after the search, according to the principles of examination on unity as provided in Chapter 6, Section 2. 2. 1 of this Part, he shall determine whether there exists unity between the remaining independent claims. Search is not required for those independent claims which lack unity;

(2) where the inventive concept of two or more inter-parallel independent claims of an application are very close, and none of the independent claims needs to be searched in other technical fields, the examiner may make search for all of the subject matters of the application, because it will not greatly increase the workload; and

(3) when making search directed to an independent claim, if the examiner finds the claim lack of novelty or inventive step, which causes that unity is not present between its inter-parallel dependent claims, the examiner may apply mutatis

mutandis the methods described in Section 9.2.1(1), 9.2.1(2), 9.2.2(1) or 9.2.2(2) of this Chapter to handle it.

(the section 9.2.1 and 9.2.2 of the Chapter 7, the Part II of the Guidelines for Patent Examination)

4.3 How can the applicant react in case a non-unity objection has been raised?

Answer: In any of the following circumstances in which unity is not present in an application, the examiner shall invite the applicant to amend the application (including to divide the application) to meet the requirement of unity.

(1) The original claims contain two or more inventions that do not meet the requirement of unity.

Where two or more inventions not belonging to a single general inventive concept are claimed in the original claims of an application, the examiner shall invite the applicant to restrict the claims to one of the inventions (usually the invention corresponding to claim 1) or to two or more inventions belonging to a single general inventive concept. For the removed inventions, the applicant may file divisional applications.

(2) There is no unity between an added or replacing independent claim introduced during amendments to the application and the invention defined in the original claims.

In the process of examination, the applicant may amend the claims by introducing to the claims a new independent claim which defines an invention originally described in the description only or, in response to an Office Action, by replacing an original independent claim with a new independent claim which defines an invention originally described in the description only. If there is no unity between the newly introduced invention and the invention defined in the original claims, generally the examiner shall invite the applicant to remove the added or replacing invention from the claims. The applicant may file a divisional application for the removed invention.

(3) One of the independent claims lacks novelty or inventive step, and there is no unity between the other claims.

The lack of novelty or inventive step of a certain independent claim (usually claim 1) may result in lack of unity among its parallel independent claims or even among its dependent claims in case they no longer share the same or corresponding special technical features. In this case, the claims need to be amended, and for any subject matter removed after amendment, the applicant may file a divisional application. For example, an application contains a product, a process for making the product and a use of the product, and it is found after search and examination that the product is not new. In this case, the remaining independent claims of the process for making the product and the use of the product obviously do not have the same or corresponding special technical features, and therefore, they need to be amended.

In the above circumstances, the applicant may file a divisional application on his own initiative or as a response to an Office Action. It should be noted that because

whether to file a divisional application is a voluntary choice of the applicant, the examiner shall only invite the applicant to restrict the two or more inventions that do not have unity to one invention or to amend the inventions to form a single general inventive concept. It is up to the applicant whether to file a divisional application for any invention removed after the amendment.

Moreover, an application may be divided by filing one or more divisional applications based on that application, and a divisional application may be further divided by filing one or more further divisional applications, but the basis shall be the original application that the divisional application is derived from. Where any further divisional application is filed from a divisional application, if the time of filing fails to satisfy the requirement provided in Chapter 1, Section 5.1.1(2) of Part I, the further divisional application shall not be accepted unless it is filed as a response to an Office Action noting the defect of lack of unity in the divisional application.

(the section 3.1 of the Chapter 6, the Part II of the Guidelines for Patent Examination)

Moreover, The petitioner may amend the application at the time of submitting the request for reexamination, however, amendments by the petitioner shall be limited only to overcome the defects indicated in the decision of rejection or by the panel. Generally, the above requirement is not considered to be met where a claim in the amendment is derived from the technical solution that lacks unity with the claims rejected in the decision of rejection. (the section 4.2 of the Chapter 2, the Part 4 of the Guidelines for Patent Examination)

Submission time of divisional application

The applicant shall file a divisional application no later than the expiration of two months (i. e., the time limit for going through the formalities of registration) from the date of receiving the Notification to Grant Patent Right to the initial application issued by the Patent Office. After the expiration of the above time limit, or where the initial application has been rejected, or the initial application has been withdrawn, or is deemed to have been withdrawn and the right has not been restored, no divisional application shall be filed in general.

With regard to the initial application to which the examiner has issued the decision of rejection, the applicant may file a divisional application within three months from the date that the applicant receives the decision of rejection regardless of whether the applicant requests for reexamination or not. The applicant, after requesting for reexamination or during the initiation of the administrative litigation against the reexamination decision, may also file a divisional application.

During the preliminary examination, where the filing date of a divisional application is not in conformity with the said provisions, the examiner shall issue the Notification that Divisional Application Deemed Not to Have Been Filed, and make a decision to close the case.

Where an applicant files another divisional application based on an already filed divisional application, the submission date of another divisional application shall be examined according to the initial application. Where the submission date of another

divisional application is not in conformity with the above provisions, no divisional application shall be filed, however, with the exception that another divisional application is filed by the applicant according to the Office Action made by the examiner due to a unity defect in the divisional application. Regarding this exception, the applicant, when filing another divisional application, shall submit a copy of the Office Action indicating the unity defect or of the Notification to Make Divisional Application issued by the examiner. Where the copy of the Office Action or of the Notification to Make Divisional Application in conformity with the provisions is not submitted, the application shall not be treated as exception. Where the copy is not in conformity with the provisions, the examiner shall issue the Notification to Make Rectification notifying the applicant to make rectification. Where no rectification is made within the time limit, the examiner shall issue the Notification that Application Deemed to be Withdrawn. Where the copy is still not in conformity with the provisions after rectification, the examiner shall issue the Notification that Divisional Application Deemed Not to Have Been filed and make a decision to close the case. (the section 5.1.1 of the Chapter 1, the Part 1 of the Guidelines for Patent Examination)

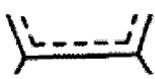
4.4 What are the legal consequences, in the different stages of the procedure, if the unity requirement is not met by the applicant?

Answer: If the case is in the stage of “Preliminary examination” or “the examination as to the substance”, the application will be rejected. If the case is in the stage of re-examination, the earlier decision rejecting the application will be maintained.

5. Offices communications regarding unity

5.1 Could you attach some actual communications from your Office raising non-unity objections, including the corresponding reasoning?

1) Claim 1 claimed a compound of the formula (I), wherein the common moiety to all of the

Markush compounds is :  , but the common moiety is known in the prior art, therefore, it cannot constitute the distinguishing feature between the compounds of formula (I) claimed in claim 1 and those in the prior art, and claim 1 does not possess unity and does not comply with Article 31.1.

2) Claim 13 claimed a compound of the formula (II), wherein the common moiety to all of the Markush compounds is: benzene ring, but benzene ring is known in the prior art, therefore, it cannot constitute the distinguishing feature between the compounds formula (II) claimed in claim 13 and those in the prior art, and the Markush claim does not possess unity and does not comply with Article 31.1.

3) Claim 26 claimed compounds of the formula A-N, wherein the common moiety to all of the Markush compounds is: benzene ring, but benzene ring is known in the prior art, therefore, it cannot constitute the distinguishing feature between the compounds of formula A-N claimed

in claim 26 and those in the prior art, and the Markush claim does not possess unity and does not comply with Article 31.1.

- 4) Claim 29 claimed compounds of the formula 17-25, wherein the common moiety to all of the compounds is: benzene ring, but benzene ring is known in the prior art, therefore, it cannot constitute the distinguishing feature between the compounds of formula A-N claimed in claim 29 and those in the prior art, and the claim does not possess unity and does not comply with Article 31.1.
- 5) Claims 47, 67, 71 involved the compounds mentioned by the above claims, therefore, these claims do not possess unity and do not comply with Article 31.1 too.
- 6) Claims 30 and 41 claimed Markush compounds, wherein the common moiety to all of the compounds is: benzene ring, but benzene ring is known in the prior art, therefore, it cannot constitute the distinguishing feature between the compounds claimed in claims 30 and 41 and those in the prior art, and these claims do not possess unity and does not comply with Article 31.1.

ANNEX 2.5 USPTO

JOINT QUESTIONNAIRE ON UNITY OF INVENTION FOR IP5 OFFICES

USPTO RESPONSE – JANUARY 2015

1. Description of the applicable legal framework

1.1 What are the legal provisions to be applied in your Office to the assessment of unity of invention?

Unity of invention is assessed in the USPTO in international applications under the PCT and national phase applications under 35 U.S.C. 371. The legal provisions for the assessment of unity of invention in these applications are provided in 37 CFR 1.475, 1.476, 1,488 and 1.499. These regulations essentially mirror PCT Rule 13.

The legal standard/requirement in U.S. national applications filed under 35 U.S.C. 111(a) is different from the unity of invention standard. In these applications, 35 U.S.C. 121 indicates that if two or more independent and distinct inventions are claimed in one application, the Director may require the application to be restricted to one of the inventions. 37 CFR 1.141 and 1.142 further indicate generally that an application may be subject to restriction where it contains claims directed to two or more independent and distinct inventions.

http://www.uspto.gov/web/offices/pac/mpep/consolidated_laws.pdf

http://www.uspto.gov/web/offices/pac/mpep/consolidated_rules.pdf

1.2 Does your Office acting as ISA/IPEA under the PCT apply a different procedure as opposed to that applicable to national applications?

Yes. As indicated in the response to question 1.1 above, the standard applied by in the USPTO in its capacity as an ISA/IPEA is the same as the standard applied in applications which enter the U.S. national phase (35 U.S.C. 371) but is different than the standard applied in other national applications (35 U.S.C. 111(a)).

Procedurally, in all U.S. national applications (those filed under either 35 U.S.C. 371 or 111(a)), applicants must pursue inventions which lack unity, or which are independent or distinct, in divisional applications. There is no opportunity to pay for additional inventions in a single U.S. national application in response to a restriction requirement from the patent examiner.

The procedural details are set forth in the USPTO's Manual of Patent Examining Procedure (MPEP). Chapter 800 of the MPEP provides details of our practice in U.S. national applications filed under 35 U.S.C. 111(a) and Chapter 1800 provides the details for our practice in international and national phases for PCT applications.

<http://www.uspto.gov/web/offices/pac/mpep/index.html>

1.3 Please describe the grounds/considerations underlying the requirement of unity of invention in your Office.

Very generally, the grounds and considerations are the legal provisions (PCT Article 13, 37 CFR 1.475, 1.476, 1.488, and 1.499), Chapter 10 of the PCT International Search and Examination Guidelines (ISPE Guidelines), and economic and technical considerations, including prosecution efficiency and technical accuracy. Additionally, an express consideration in the USPTO's restriction practice under the independent and distinct standard is examiner burden. It is believed that this consideration is inherent in any provision or procedure under which an application's claims are limited to related inventions, regardless of the specific standard which defines how the inventions must be related.

1.4 Could you attach a copy of the provisions referred to above (in English)?

See the links provided in response to questions 1.1 and 1.2 above.

2. Description of the practice and method for the assessment of unity of invention

2.1 Could you describe the Office's practice regarding the application of those provisions, i.e. what are the criteria to assess whether an application meets the unity requirement?

The USPTO uses the criteria specified in 37 CFR 1.475, 1.476, 1,488 and 1.499 to assess unity. As indicated in the answer to question 1.1, the criteria is the same as PCT Rule 13 which requires that the application relate to one invention only or to a group of inventions so linked as to form a single general inventive concept ("requirement of unity of invention"). Where a group of inventions is claimed in an application, the requirement of unity of invention shall be fulfilled only when there is a technical relationship among those inventions involving one or more of the same or corresponding special technical features. The expression "special technical features" shall mean those technical features that define a contribution which each of the claimed inventions, considered as a whole, makes over the prior art.

2.2 How are these criteria applied in practice?

Generally, the assessment of unity of invention is made before substantive search and examination. The examiner first reviews the claims to see if they lack unity *a priori*, before consideration of the prior art. If unity does not exist *a priori*, an appropriate requirement is made. In the international phase, the appropriate requirement would be an invitation to pay additional search or examination fees.

USPTO as ISA does not issue search results on the main invention with such an invitation. In a U.S. national phase application, the examiner would issue a restriction requirement where the applicant is invited to select one of the inventions and is informed that the remaining inventions must be pursued by way of divisional applications unless the other inventions are rejoined during prosecution. Where unity is present *a priori*, the examiner must either assume that any corresponding technical features qualify as a special technical feature (a contribution over the art) or search to the extent necessary to determine whether any corresponding technical features are a contribution over the art.

2.3 How is a unifying technical relation determined between the inventions or groups of inventions claimed, or when are the inventions or the groups of inventions claimed so distinct that they do not fulfil the unity requirement?

First, the examiner determines if the claims share technical features (same or corresponding). If the claims do not share any of the same technical features or any corresponding technical features, the inventions are considered to lack unity *a priori*. Where the claims do share technical features, the scope of the shared technical features is determined. It is then determined whether or not the entire scope of the shared technical features are known in the art. In other words, do they qualify as a “special technical feature”? This determination is made with respect to both novelty and inventive step.

2.4 Does the examiner enjoy any discretion to deviate from the application of the criteria described above and, if so, in what particular circumstances?

For applications before the USPTO where the standard is unity of invention, the examiner has discretion to perform search and examination without requiring additional search and examination fees (international phase) or requiring restriction (national phase). The examiner may do this where the claims technically lack unity but the determination is narrow or academic, where it is simply more efficient to search and examine the inventions together or where there is no additional burden for the examiner.

There are generally no circumstances where the examiner can deviate from the basic unity test as outlined in the answers to the questions above, except where the examiner chooses to assume that common or corresponding technical features are a contribution over the art. Of course this assumption is made only with respect to the determination of unity and not the determination as to whether the claims have novelty or inventive step.

3. Unity of invention practice in particular cases

3.1 Shall the lack of unity be raised among the claims for a product, a process adapted for the manufacture of said product, a use of said product?

37 CFR 1.475(b)(3) and paragraph 10.12 of the ISPE Guidelines indicate that the method for determining unity of invention is construed as permitting the inclusion of a claim for a product, a process adapted for the manufacture of said product, and a use of said product. However, such claims must still comply with the basic unity requirements as set forth in PCT Rule 13 and 37 CFR 1.475(a), i.e., the claims must still have the same or corresponding special technical feature in order to have unity.

For example, paragraph 10.21 of the ISPE Guidelines (reproduced below) indicates that if the common technical feature among the product, process of manufacture of said product, and use of said product is known in the art, unity is lacking.

10.21 Example 1

Claim 1: A method of manufacturing chemical substance X.

Claim 2: Substance X.

Claim 3: The (method of) use of substance X as an insecticide.

Unity exists between claims 1, 2, and 3. The special technical feature common to all the claims is substance X. However, **if substance X is known in the art, unity would be lacking because there would not be a special technical feature common to all the claims.** (emphasis added)

3.2 Is it at all possible that the lack of unity of invention exists on each of the following cases: (a) within a single claim, (b) among the independent claims, (c) between an independent claim and its dependent claims, (d) among dependent claims of the same independent claim?

Yes, it is possible that a lack of unity exists in each of situations (a) – (d) above.

3.3 Are there established findings regarding the assessment of unity in particular cases, notably in case of combination of claims of different categories, intermediate and final products, or Markush groupings?

Yes, the USPTO generally follows the practice as illustrated in the ISPE Guidelines for each of these cases. See for example paragraphs 10.12 – 10.16 and 10.21 - 10.27 for combinations of claims in different categories, paragraphs 10.18 and 10.46-10.51 for intermediate and final products, and paragraphs 10.17 and 10.38-10.45 for Markush groupings.

3.4 Could you explain how unity is assessed in these cases?

Unity is assessed in these cases in the manner detailed in the ISPE Guidelines paragraphs identified above in the answer to question 3.3.

4. Procedural consequences in cases of non-compliance with the unity requirement

4.1 Could you indicate the stages of the procedure in which non-unity objections can be raised?

At the international stage, unity or lack thereof is the first thing to be considered by the patent examiner and invitations for additional search or examination fees are sent before any search report, written opinion or IPER is mailed.

In national phase applications, it is technically/legally possible to issue a restriction requirement (for lack of unity in national phase applications under 35 U.S.C. 371 or where the claims are independent or distinct in U.S. national applications under 35 U.S.C. 111(a)) at any point during prosecution. However, the USPTO prefers that such invitations be issued prior to the first action on the merits (the first substantive patentability opinion) and discourages examiners from issuing restriction requirements after the first action in an effort to promote compact prosecution.

4.2 What is the impact of a non-unity objection on the subject matter to be searched/examined?

In the international phase, claims for which additional search or examinations fees are not paid are then excluded from search and no opinion on novelty, inventive step or industrial applicability is established.

In a U.S. national phase application, the applicant must elect an invention to be pursued in the instant application and the other inventions must be pursued via divisional applications (unless rejoined at some point in the prosecution).

4.3 How can the applicant react in case a non-unity objection has been raised?

In the international phase, the applicant may pay for the search or examination of the additional inventions. Where the applicant disagrees with the non-unity objection, they can pay the additional search or examination fees under protest per PCT Rule 40.2(c).

In a U.S. national phase application, the applicant must elect an invention for search and examination in response to a restriction requirement. However, the election can be made with traverse and arguments provided to indicate any purported defect in the restriction requirement based on non-unity. The examiner will then need to consider applicant's arguments in relation to the restriction requirement. Where the requirement is maintained, the applicant may request supervisory review and, ultimately, final agency review of the restriction requirement. If the requirement is

affirmed after such a request(s), the non-elected inventions must be pursued in divisional applications (unless rejoined at some point in the prosecution).

4.4 What are the legal consequences, in the different stages of the procedure, if the unity requirement is not met by the applicant?

There does not appear to be any consequence where the unity requirement is not met at the international phase if additional search and/or examination fees are paid. Where such additional fees are not paid at the international stage, PCT Article 17(3)(b) allows a designated State to consider those parts of the international application withdrawn unless a special fee is paid. The USPTO in its capacity as a designated Office does not require such a special fee and does not consider the unity determination made at the international stage binding. The USPTO evaluates unity of invention in the national stage and will require restriction where appropriate. Ultimately, the consequence would be the need to pursue the inventions which lack unity in divisional applications.

5. Offices communications regarding unity

5.1 Could you attach some actual communications from your Office raising non-unity objections, including the corresponding reasoning?

See attachment.

PATENT COOPERATION TREATY

From the INTERNATIONAL SEARCHING AUTHORITY

To: RICHARD S. MACMILLAN
MACMILLAN, SOBANSKI & TODD, LLC
ONE MARITIME PLAZA, 5TH FLOOR
720 WATER STREET
TOLEDO, OH 43604

PCT

INVITATION TO PAY ADDITIONAL FEES
AND, WHERE APPLICABLE, PROTEST FEE

(PCT Article 17(3)(a) and Rules 40.1 and 40.2(e))

Date of mailing (day/month/year) **07 JUL 2014**

Applicant's or agent's file reference 53-54796	PAYMENT DUE within ONE MONTH from the above date of mailing
International application No. PCT/IB 14/00379	International filing date (day/month/year) 17 March 2014 (17.03.2014)
Applicant: WANDERLEY, JOSE GUILHERME DE PINHO VELHO	

1. This International Searching Authority

(i) considers that there are 4 (number of inventions claimed in the international application covered by the claims indicated below) on extra sheet:
See Supplemental Sheet

(ii) therefore considers that the international application does not comply with the requirement of unity of invention (Rules 13.1, 13.2 and 13.3) for the reasons indicated below on an extra sheet.
— See Supplemental Sheet —

(iii) has carried out a partial international search (see Annex) will establish the international search report on those parts of the international application which relate to the invention first mentioned in claim No. 1.

(iv) will establish the international search report on the other parts of the international application only if, and to the extent to which, additional fees are paid.

2. Consequently, the applicant is hereby invited to pay, within the time limit indicated above, additional fees in the amount indicated below:

\$2080	x	3	=	96240	(See Item 2 of Annex)
Fee per additional invention		number of additional inventions		total amount of additional fees/currency	

3. The applicant is informed that, according to Rule 40.2(e), the payment of any additional fees may be made under protest, that is, a reasoned statement to the effect that the international application complies with the requirements of unity of invention or that the amount of the required additional fees is excessive, where applicable, subject to the payment of a protest fee. Where the applicant pays additional fees under protest, the applicant is hereby invited, within the time limit indicated above, to pay a protest fee (Rule 40.2(e)) in the amount of _____ (national currency).
Where the applicant has not, within the time limit indicated above, paid the required protest fee, the protest will be considered not to have been made, and the International Searching Authority will so declare.

4. Claim(s) No. _____ have been found to be unsearchable under Article 17(2)(b) because of defects under Article 17(3)(a) and therefore have not been included with any invention.

Name and mailing address of the ISA/US Mail Stop PCT, Attn: ISA/US Commissioner for Patents P.O. Box 1450, Alexandria, Virginia 22313-1450 Facsimile No. 571-273-3201	Authorized officer: Lee W. Young PCT Handbook, 5th Edition PCT 087, 571-273-1154
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Form PCT/ISA/206 (April 2005)

PR

Industry IP5 Consensus Proposals to the IP5 Patent Harmonization Experts Panel (PHEP)

October 10, 2014

The six Industry IP5 Associations have approved in principle and hereby present the following consensus proposals to the IP5 Offices, concerning the three procedural harmonization issues that will initially be taken up by the IP5 Patent Harmonization Experts Panel (PHEP):

American Intellectual Property Law Association (AIPLA)
Intellectual Property Owners (IPO)
Japan Intellectual Property Association (JIPA)
BusinessEurope (BE)
Korean Intellectual Property Association (KINPA)
Patent Protection Association of China (PPAC)

Proposal 1. Unity of Invention

The above-mentioned Industry IP5 Association propose that the IP5 Offices adopt the following principles concerning Unity of Invention:

BASIC PRINCIPLES:

- All IP5 Offices should use Unity of Invention.
 - In applying Unity the Offices should adhere to the PCT standard for Unity.
 - In applying the PCT standard the Offices should adopt uniform guidelines:
 - The Offices should study actual cases to determine if they are currently making different determinations, and how to achieve uniformity.
- The IP5 Offices should consider studying the relationship of Unity of Invention to the uniform CPC classification system.