

Summary Report

by Sarah MATHESON, Reporter General
John OSHA and Anne Marie VERSCHUUR, Deputy Reporters General
Yusuke INUI, Ari LAAKKONEN and Ralph NACK
Assistants to the Reporter General

Question 244

Inventorship of Multinational Inventions

This Question concerns the issue of inventorship of joint inventions where the inventors reside in different countries. Due to the prevalence of international corporations having geographically distributed research groups, multinational joint venture projects, international corporate/university collaborations, and other cross-border research projects, and further due to the ease of international communications and exchange of data, international joint inventorship is today a common occurrence. This Question focuses on two issues that are important to multinational inventions: determination of inventorship in the context of multinational inventions; and national requirements relating to foreign filings.

Definitions

- 1) **Multinational inventions.** For the purposes of this Question, ***multinational inventions*** means inventions having two or more inventors where different national laws concerning inventorship apply to at least two of the inventors. In the most common case, this would involve, for example, a first joint inventor of citizenship X residing in country X who is a co-inventor of an invention with a second joint inventor of citizenship Y residing in country Y. However, different national laws may apply to the (at least) two inventors even if they are of the same citizenship, but reside in different countries. Different national laws may even apply to the two inventors if they reside in the same country, but are of different citizenship or have employment contracts under different national laws.
- 2) **First filing requirement.** For the purposes of this Question, a ***first filing requirement*** means a requirement that a patent application for an invention – be it all inventions or only inventions in certain technology areas – that is made or partially made in a country be filed first in that country before filing in any other country.
- 3) **Foreign filing license.** For the purposes of this Question, a ***foreign filing license*** means any procedure or mechanism for obtaining an exemption to a first filing requirement.
- 4) **Secrecy review.** While the first filing requirement is a procedural requirement, ***secrecy review*** as used in this Question refers to a substantive review by a governmental authority of the subject matter of a patent application to determine whether it implicates national security or other national interests, or includes subject matter that must be kept secret.

The Reporter General has received reports from the following Groups and Independent Members in alphabetical order: Argentina, Australia, Austria, Belgium, Brazil, Bulgaria, Canada, Central American & Caribbean Regional Group, China, Czech Republic, Denmark, Egypt, Estonia, Finland, France, Germany, Greece, Hungary, Independent Member (Taiwan), Indonesia, Israel, Italy, Japan, Mexico, Netherlands, New Zealand, Norway, Paraguay, Peru, Philippines, Poland, Republic of Korea, Russian Federation, Singapore, Spain, Sri Lanka, Sweden, Switzerland, Turkey, United Kingdom, United States of America, Uruguay, and Venezuela. 43 reports were received in total. All of the Reports were very helpful and assisted greatly.

The Reports provide a comprehensive review of national and regional laws and policies relating to inventorship of multinational inventions. This Summary Report does not attempt to reproduce the detailed responses given by each Group or Member. If any question arises as to the exact position in a particular jurisdiction, reference should be made to the original Reports. See <https://www.aippi.org/>.

A summary of the Reports received follows. Where percentages of responses are given, they are to the nearest 1%.

In Part IV below, some conclusions have been drawn in order to provide guidance to the Working Committee for this Question.

I. Current law and practice

1) Please describe your law defining inventorship and identify the statute, rule or other authority that establishes this law.

Most Reports indicate that while their patent statute refers to “inventor(s)”, the statute does not define inventorship explicitly. Eight Reports indicate that their statute does include a definition of inventorship; these definitions generally refer in some sense to the concept of creation: China, “any person who makes creative contributions to the substantive features of an invention”; Czech Republic, “the person who made the invention by its creative work”; Estonia, “person who has created an invention as a result of his or her inventing activities”; Hungary, “the person who has created the invention shall be deemed to be the inventor”; Russian Federation, “creative contribution”; Sri Lanka, “invention means an idea of an inventor which permits in practice the solution to a specific problem in the field of technology”; Singapore and United Kingdom, “actual deviser of the invention.”

Many Reports indicate that, while not statutory, a definition of inventorship has been developed through case law or literature. These definitions vary significantly, but generally look for contribution to an inventive concept: Australia, “contribution to conception of the invention”; Austria, “the one who recognizes the concept of the invention”; Belgium, “each person who has delivered a substantial contribution to the invention”; Canada, “the person who first conceives of a new idea or discovers a new thing that is the invention, and the person that sets the conception or discovery into a practical shape”; Denmark, “the originator of the idea on the basis of which the invention is developed”; Finland, “someone who has made the invention or contributed to the invention”; France, “whoever conceives and makes the invention has the status of inventor ... [t]he invention consists in means capable of achieving a result ... [c]onsequently, the inventor is the person who discovers the means”; Germany, “creative contribution to the technical teaching that is not insignificant”; Independent Member (Taiwan), “a person who has made conceptual contributions to the substantive features of the invention”; Israel, “a person who contributed to the conception of the invention”; Japan, “conceived of the means for solving the problem”; New Zealand, “contributed to devising the invention”; Norway, “solution to the technical problem .. [or] an independent intellectual contribution to the invention”; Republic of Korea, “a person who has substantially engaged in the creative process

of an invention”; Spain, “contributed intellectually to reach the technical solution to the technical problem”; Sweden, “the person having intellectually generated the invention, the person having conceived of the innovative step beyond prior art”; Switzerland, “creator(s) of the inventive concept”; US, “threshold question in determining inventorship is who conceived the invention”; and Uruguay, “every person contributing (in a non-frivolous manner) to an invention.”

The Reports from Argentina, Brazil, Mexico, noted that the listed inventor is presumed to be the inventor. The Report from Poland indicates that it is “solely and completely up to the persons involved with making the invention to decide who will be listed in a patent application.”

- a. If person A, located outside your country, directs the efforts of person B, located in your country, for making an invention in your country, under what circumstances would person A and/or person B be considered an inventor under your law?**

With regard to the effect of the residency of the inventors, the Spanish Group notes, under Spanish law, person A would be an inventor whose activities would be governed by its country of residence, while person B would be considered as a Spanish inventor. All other Reports addressing this sub-question indicate that the residency or location of the inventors would make no difference to the inventorship determination.

With regard to the issue of who would be considered an inventor, a strong majority of reports indicate that this would depend on whether one or both of person A and person B contributed to the inventive concept or means for solving the technical problem. As explained, for example, by the US Group:

Whether person A or B is an inventor, or both are joint inventors, depends on what is claimed, and who conceived the subject claimed. If A's direction to B is to "provide me with a better widget" and B conceives of such a widget, B would be the inventor. If A directs B to, for example, "reduce to practice a widget having elements (a), (b) and (c)," the combination that is ultimately claimed, then A would be the inventor. If A directs B to produce a widget having elements (a) and (b), and B conceives and produces a widget having elements (a), (b) and (c), the combination ultimately claimed, A and B would be joint inventors.

- b. Does your law defining inventorship rely on or look to a particular part of the patent application? For example, is inventorship under your law determined on a claim by claim basis, determined based on the content of the drawings or the examples, or determined on some other, and if so, what basis?**

80% of the responding Reports answered this question in the negative, indicating either that the law would consider inventorship based on the application as a whole, or that there is no specific guidance on this point. For example, the Australian Group indicates, “It is necessary to examine the complete specification as a whole (including the claims) to determine the inventive concept that is described or disclosed; it is generally not an analysis on a claim by claim basis.” Similarly, the German Group notes, “[d]ecisive for the determination of a possible creative contribution to the subject matter of the patent is the entire content of the patent application including description and drawings. Thus, whether or not a person may be considered an inventor is to be determined on the basis of the patent application as a whole.” (Citations omitted).

The Reports that answered this question in the affirmative generally note that because the inventive concept is defined by the claims, conception of or contribution to the inventive concept must be considered based on the language of the claims. For example, the Canadian Report explains,

The key consideration in determining inventorship is whether a person contributed to the inventive concept of the invention. Typically, the inventive concept is reflected in the claims, and there is authority for the proposition that “any question of inventorship or date of invention must be tested against language of the patent claims, which alone define the exclusive right conveyed by the patent grant.” (Citations omitted).

The Japanese Report notes that inventorship is determined on a claim by claim basis:

Under the Japanese law, inventorship is determined on a claim by claim basis. Therefore, if a claim is deleted, changed or restricted, etc. in the amendment or correction process, inventorship is changed ex-post facto in relationship to the relevant claim.

Similarly, the US Group notes that “[i]n the US inventorship is determined based on the contribution to the subject matter in the claims. The Report from the Republic of Korea also indicates that inventorship would be considered based upon contribution to a creative feature of an element (except for a known element) of an invention, i.e., a claim.

The Reports from the Russian Federation (referring to both Russian and Eurasian patent law) and Singapore note that inventorship would be determined based on examining the inventions set forth in the independent claims.

2) Does your law of inventorship depend on the citizenship of the inventor(s)?

All received Reports answered this question in the negative with the exception of the Report from the Indonesian Group, which notes that the nationality of the inventor(s) must be specified on the application.

3) Does your law of inventorship depend on where the invention was made (e.g. on the residency of the inventor(s))?

All received Reports answered this question in the negative with the exception of the Report from the Spanish Group, which notes,

Spanish rules on inventorship apply to inventions made in Spain. The Spanish Patent Act provides that an invention is presumed to have been made in Spain if the inventors have their residence in Spain, unless it can be proved that the invention has been made elsewhere.

A number of Reports note the difficulty of determining the choice of law in the case of multinational inventorship. For example, the French Report observes,

French law regulates only the question of the rights to the patent, and not the question of the definition of the inventor. However, certain rules relating to the right to the patent could provide indications as to the law applicable to the determination of the inventors. Drawing on Article 60 of the European Patent Convention in relation to the right to the patent, and where an international aspect exists, it may be considered that inventorship should be determined in accordance with the same criteria:

- *The law of the State in which the employee exercises his principal activity, thus ultimately the place where the invention was made;*
- *In the alternative, the law of the State in which the employer has the place of business to which the employee is attached.*

However, in the context of multinational inventions involving a number of inventors living or making the invention in different places and who are not within a contractual framework, it is difficult to determine which criterion of connection should be adopted in order to trigger the application of “French law” to the determination of inventorship.

4) Can the inventorship of a patent application be corrected after the filing date in your country?

All Reports answered this question in the affirmative with the exception of the Report from Greece, which indicates that no correction of the applicant(s) or the inventor(s) name is possible after filing in the national patent procedure.

a. If yes, what are the requirements and time limits for such correction?

With the exception of Greece, all Reports indicate that there is a mechanism to correct inventorship after the national filing date. However, the requirements and time limits vary significantly from jurisdiction to jurisdiction. The Independent Member notes that in Taiwan if inventorship is changed from inventor A to inventor B, the filing date of the application will be changed to the date of the correction. The Turkish Group reports that a petition to add a new inventor to an application can be made at any time, but there is no way to remove the name of an existing inventor from an application.

A majority of Reports indicate that a voluntary correction to inventorship may be made before grant of the application, but that a different procedure – typically involving a court action – is required to correct inventorship after grant. The requirements for a voluntary correction also vary; some jurisdictions require only a request whereas others require a declaration of the inventors / applicant and a showing of inadvertence or mistake. Four Group Reports indicate that consent of the affected inventor is required to remove that inventor from an application.

5) What are the possible consequences of an error in the stated inventorship on a patent application in your country? Can a patent issued from such an application be invalidated or rendered not enforceable on that basis? Does it matter whether the error was intentional or unintentional?

38% of the Reports indicate that there are no consequences of an error in the stated inventorship other than correction of the error. The Reports from Israel, Japan, New Zealand and Singapore note that an application may be refused grant, or a patent invalidated, in the case of misappropriation or fraud.

Another 38% of the Reports explain that a patent application or issued patent may be refused grant, revoked, or transferred upon an action by the true inventor. Hence, in these jurisdictions a third-party challenge to validity on the basis of an error in stated inventorship is not available. A minority of Reports indicate that an error in stated inventorship would be a grounds for refusal of grant (14%) or revocation upon a third-party action (12%).

All Reports indicate that the intentional or unintentional nature of the error is not a decisive factor. However, several Groups note that an intentional error might rise to the level of misappropriation or fraud, and thus could lead to unenforceability or nullity on that basis. The Australian Group notes that an intentional error may weigh on a court’s equitable discretion of whether to issue a revocation order. The Danish and U.K. Groups note that the time period for taking action by an unnamed, true inventor is affected by whether the error was intentional or unintentional.

6) Does your law require that an application for a patent claiming an invention made in your country, whether in only one technical area or in all technical areas, be filed first in your country?

Thirteen of the 42 responding Reports answer this question in the affirmative (Belgium, Denmark, France, Indonesia, Israel, Italy, Netherlands, Norway, Russian Federation, Singapore, Spain, United Kingdom, United States). The remaining 29 Reports indicate that no such requirement exists in their jurisdiction. The Spanish Group Report explains the current Spanish Patents Act as follows:

when the inventor has his/her habitual residence in Spain it is presumed that the invention has been made in Spain and, therefore, there is the requirement to first file the application of the patent in Spain. Furthermore, one must also take into account that Royal Decree No. 2424/1986, and Royal Decree 1123/1995, establish that when the applicant (not the inventor, therefore the invention could have been made out of Spain) of a European/International patent application has its domicile or headquarters in Spain, or its habitual residence or permanent establishment in Spain, and it does not claim the priority of a previous application in Spain, it must compulsorily file the European/International patent application at the SPTO. Here, attention should be paid to the fact that no Foreign First Filing License is allowed in either cases. However, currently, Spanish law does not establish any specific sanction in the event the First Filing is not done in Spain.

If the answer is yes, please answer the following:

a. Is the law requiring first filing in your country limited to a specific area of technology or otherwise limited such that it does not apply to all inventions made in your country? If yes, please explain

Of the 13 Reports that answered “yes” to question 6 above, five of the Reports indicate that the first filing requirements apply to all inventions made in their country, without regard to technical area (Italy, Russian Federation, Singapore, Spain, and US). The remaining eight Reports indicate that first filing requirements apply only to national security-related inventions (and, in the case of Israel, to inventions by State employees).

b. Does your law provide for granting of a foreign filing license or similar mechanism that would allow a patent application for an invention made in your country to be filed first in another country? Please describe any such foreign filing license or similar mechanism as well as the procedure, timing, and cost of obtaining it

Seven of the Reports indicate that a foreign filing license or similar mechanism is available to permit a first filing in another country. Generally, these licenses may be issued upon request, or issued automatically in response to an original national filing.

c. If the answer to b. above is yes, is it possible to obtain a foreign filing license retroactively, for example, if a foreign filing was made without a foreign filing license due to inadvertent error?

Only two of the Reports (France and US) indicate availability of a retroactive foreign filing license (although it is not automatically granted).

- d. How does your law apply to an application for a patent claiming an invention that was made jointly by an inventor in your country and an inventor in another country? Does this apply based on the citizenship of the inventor, the residency of the inventor, or both? Does the nationality of the patent owner affect your answer?**

All of the responding Reports indicate that their law applies to an inventor in their country who makes or contributes to an invention. Two of the Reports indicate that their law would also apply to a citizen working abroad. The French Group Report notes that if the invention was made in a country that is a party to the “Letter of Intent” agreement, namely Germany, Spain, Italy, the UK and Sweden, or was financed by such a country, a patent application may be filed in that country even if it incorporates the contribution of a French inventor.

The Danish, Israeli, and US Group Reports note the potentially problematic nature of first filing requirements in the international context. For example, the Israeli Group Report explains,

As noted above, the Patents Act might apply to inventions conceived by Israeli citizens residing outside of Israel. It follows that patent applications claiming an invention that was made jointly in Israel and with another inventor in another country are also subject to first filing requirements. The nationality of the patent owner does not affect the answer to this question. This state of the law may result in inventors finding themselves in a “Catch 22” scenario. For example, if the invention was conceived by two inventors, an Israeli inventor and a US co-inventor, and the laws of each country require that the invention be filed first in their country, it is not possible to file in any country without violating the first filing requirement.

- e. In the case of an invention made jointly by an inventor in your country and an inventor in another country, would it violate your law if a request for a foreign filing license was filed in the other country before being filed in your country?**

Six of the responding Reports indicate this would be a violation, five indicate that it would not (except in the case of national security-related applications).

- f. What are the possible consequences for failing to comply with this law? Does it matter whether the error was intentional or inadvertent?**

All of the responding Reports indicate the potential for a fine or criminal prosecution, depending on whether the application contains national security-related information. The Spanish and US Group Reports indicate that patent invalidity or abandonment may also be a consequence. Most Reports note that an inadvertent error would be less likely to face criminal penalties.

- 7) Does your law require that a patent application claiming an invention made, at least in part, in your country undergo a secrecy review or similar process before it can be filed in another country?**

Exactly half of the Reports answered this question in the affirmative and half in the negative. The Polish Group Report notes that although Polish law does not require a secrecy review before foreign filing, there is nonetheless a secrecy law that applies to any invention made by a Polish national (regardless of residency) that would require a secrecy review of any patent application related to such an invention if it relates to national security. The Canadian Group Report notes that only inventions made by government employees or that are otherwise owned by the government require Ministerial approval before disclosure or patent application filing

abroad. Applications in certain technology areas also may be subject to security review, but there is no prohibition on foreign filings.

a. If yes, does this law depend on the area of technology that is disclosed and claimed in the patent application?

11 of the 21 Reports that answered question 7 in the affirmative indicate that a secrecy review is conducted on all applications regardless of technology. The Report from the Dutch Group explains that European patent applications must only be filed with the national authority “if the applicant knows or reasonably should know that the content thereof should be kept confidential in the interest of the defence of the kingdom or its allies.” The remaining nine Reports indicate that the law relating to secrecy review applies only to technologies relating to national security.

b. If yes, describe this aspect of your law as well as the procedure, timing, and cost of compliance with it.

Slightly more than 50% of the Reports indicate that security review is automatic upon filing, with time periods for issuing a secrecy order ranging from 6 weeks to 6 months. In all jurisdictions where a secrecy provision exists, the patent office may prohibit disclosure and foreign filings (except for those cases where a secrecy agreement exists among countries) if the application is found to contain subject matter important to national security. In the other jurisdictions, secrecy review is conducted upon request or upon referral by the patent office. The Chinese Group Report indicates that a PCT application filed with SIPO is deemed to be a request for secrecy review and foreign filing authorization; any other national application would require the filing of a request for authorization before foreign filing takes place.

c. If yes, describe the possible consequences of failing to comply with this law. Does it matter whether the error was intentional or inadvertent?

12 of the 21 affirmatively-responding Reports on question 7 indicate that the consequences of failing to comply with this law may include criminal penalties. The Reports from Brazil, Hungary, and Turkey indicate that there are not specific consequences. Three Reports indicate administrative consequences: Bulgaria (withdrawal of application); China (refusal of grant); and the US (abandonment as of date of violation). The Spanish Group Report notes a consequence in the form of loss of right to compensation for secrecy designation.

II. Policy considerations and proposals for improvements of the current law

8) If your law defines inventorship, is this definition sufficient to provide patent applicants with clear guidance as to who should be named as the inventor(s) of a patent application? Are there aspects of this definition that could be improved?

Of the 30 Reports that responded to this question, 15 suggest that adding a legal definition of inventorship to the statutes or regulations would be desirable. The Spanish Group Report qualified this by saying it would be desirable only if the definition was internationally harmonized.

Fourteen of the 30 responding Reports indicate that the current law in their jurisdiction is acceptable as is, and that no (additional) formal definition of inventorship is necessary. The Group from Israel notes that while it would prefer not to codify a definition of inventorship, it would be desirable to clarify in the Patents Act that when an invention is disclosed but not

claimed in a patent application, the inventor of the unclaimed invention should not be listed as an inventor of the claimed invention.

9) If you have laws requiring first filing of patent applications directed to inventions made in your country, are there aspects of these laws that could be improved to address multinational inventions?

Fifteen Reports responded to this question as applicable to the laws of their jurisdiction. Of these, five suggest the need to specifically address the multinational invention situation in the patent law. Two of those five further recommend an internationally or at least regionally harmonized approach. The Belgian Report recommends that additional certainty or guidance is needed as to which inventions are relevant for the defence of the territory or national security, particularly in the multinational inventorship scenario. The French Report recommends that all applications except those directed to military or dual-use technologies should be exempted from the first filing requirements. The Dutch report suggests that it should be made possible to file defense-related inventions in other NATO countries. The Polish Report suggests that the first filing and secrecy laws, which are currently in conflict, could be revised for greater clarity and effectiveness. The Report from the Russian Federation suggests that applications with at least one non-Russian citizen should be exempt from the foreign filing requirement, noting,

We believe that the law in this part can be amended by exclusion from first filing in Russia rule of applications although created in Russia but have foreign citizens in the inventor's list. It is not reasonably possible to claim state secret of information which legitimately is in the possession of foreign citizens (at least without their direct approval). So the law should include mentioning of Russian citizenship of inventors as requirement for first filing Rule.

The Spanish Group Report suggests that the first filing criteria could be harmonized and simplified, or if harmonization is not possible Spanish law should at least allow the possibility to request a foreign filing license for European and International applications when the applicant resides in Spain.

In contrast, four Reports indicate that no improvements are necessary to address multinational inventions.

10) If you have laws requiring a secrecy review of patent applications directed to some or all types of inventions made in your country, are there aspects of these laws that could be improved to address multinational inventions?

Twenty-two Reports responded to this question as applicable to the laws of their jurisdiction. Of these, seven Reports indicate that no improvements are necessary to address multinational inventions. In this regard, the Report from Finland notes that contribution to an invention by a resident of Finland is already contemplated in the law: “[w]ith regard to Finland the question would relate to inventions important for the defense of the country, whereby the relevant act refers to inventions made by, or contributed to by a resident in Finland (DIA, Section 2).” The Report from the Hungarian Group similarly notes that security examination is carried out only if the application is filed first in Hungary and the applicant(s) is (are) Hungarian – for partially foreign applicants this rule does not apply.

The Belgian Group Report suggests: 1) an automatic prohibition to file abroad during a short period of time (7 days for instance), but only if the Belgian patent filing was the first filing.

Unless an objection is raised, subsequent foreign patent filings should be allowed; and 2) multinational inventors should also be allowed to exchange texts with foreign patent attorneys on a confidential basis during the secrecy review. The Brazilian Group Report similarly suggests definition of a deadline for evaluating relevance to national security interests.

The Canadian Group Report notes that although these provisions are rarely used in Canada, there should be a clear mechanism formalized by Regulations or Statute for situations requiring a secrecy review that may arise.

The French Group Report suggests that French law could be improved by making provision for the secrecy procedure for national security purposes to be limited to priority patent applications filed in France and for it not to extend to French patent applications filed under the priority of a foreign application. Further, as noted in the answer to question 9 above, the French Group Report suggests to dispense with the review for national security purposes of patent applications that relate neither to technologies capable of being incorporated in military items nor to dual-use technologies that have not yet been the subject of an export authorisation.

The German Group Report recommends: 1) the provisions governing the need for a secrecy review of patent applications filed at the German Patent and Trade Mark Office should be amended to clarify what is and what is not a national secret which, if contained in a patent application, requires an order of secrecy to be imposed on the application. However, such an amendment would not make any difference on whether the invention forming the subject of the application was made by two or more inventors of the same nationality or different nationalities; and 2) it is suggested that the present statute regarding secrecy review should be amended in a way that it allows to file a patent application, which is considered to disclose an invention which might concern national security, with the competent authorities of the foreign co-inventor(s), or a supranational patent authority to which the secrecy review will be delegated.

The Greek, Israeli, U.K., and US Group Reports suggest that specific guidance or policy is needed for dealing with multinational inventions where more than one applicable jurisdiction has a secrecy review requirement. The U.K. Group explains,

there is a potential conflict between UK and foreign laws if a patent application has been filed for “secret” subject matter, and was developed by multinational inventors. In these circumstances foreign law may require one of the inventors to first file in their home country whereas UK law may require a UK resident to file first in the UK (if a foreign filing license is not available). This problem may even arise in respect of a sole inventor because UK secrecy provisions apply to UK residents, regardless of nationality, whereas foreign laws may apply to foreign nationals, regardless of residency. This could be an intractable problem for patent applications which include “secret” subject matter.

The US Group Report similarly notes,

the US patent law provides no guidelines on what is considered to be “made in the US” When an invention results from collaborations among inventors from different countries, it is often difficult, if not impossible, to identify in which country the invention was made. Sometimes, an invention can only be considered partly made in the US. In other cases, it may be legally determined under the patent law of two or more countries that an invention was made in each of the two or more countries. No provision is set forth in the US patent law on whether a foreign filing license is required for a patent application for an invention that is only partly made in the US or that is made in the US and another country.

The US Group Report further suggests that the law limiting the amount of compensation for

the taking of an invention could be replaced with a more just and equitable compensation arrangement would allow for a world-wide economic analysis to be used in the compensation for damages.

The Norwegian Group Report notes that harmonization is needed in this area, but that this would be difficult unless a reciprocal system were in place with adequate safeguards.

The Report from the Russian Group suggests that the secrecy regulation in the law should cover only inventors who are Russian citizens.

The Singapore Group Report recommends that the scope of the Patents Act be limited so as to exclude PCT applications filed overseas and entering national phase in Singapore, since the Registrar would not have the ability to prevent the publication of such applications outside of Singapore in any event.

The Swedish Group believes that it would simplify matters if the decisive criteria for when/where to file a secrecy review would relate only to the applicant instead of also including where the invention was made and suggests that the domicile of the applicant could be made the decisive criterion.

11) Are there other aspects of your law that could be improved to facilitate filing of patent applications having multinational inventorship? If yes, please explain.

The Belgian Group Report raises the question of whether the system of first filing requirements and secrecy review at national level is not outdated. It suggests that the defense of the territory and the national security can be ensured through other means. The Report further notes that if this system is not abolished, it should at least be harmonized at international level. Competing first filing requirements should be avoided, as well as competing secrecy reviews. The secrecy review could be performed by a central administration common to several countries (for example, NATO). Foreign filing licenses should be available in any case.

The Chinese Group Report recommends to reduce the current time periods of 4 months for an initial secrecy notification (in response to a request for security review) and 6 months for a final notification to, for example, 2 and 4 months, respectively.

The Egyptian Group Report notes that, generally, the IP Law can be amended to provide definitions for inventorship and joint inventorship as this will facilitate filing of patent applications whether or not having multinational inventorship.

The Report from the Estonian Group suggests that in the case of applications that are not required to be first filed in a certain country and do not require a secrecy review, the law of the country of domicile of the inventor should apply with respect to inventorship.

The Israeli Group Report notes several areas for potential improvement:

In addition to creating a mechanism for reconciling contradictory first filing requirements, there should also be a mechanism designated to determine which law would apply to the application at hand. For example, if an invention is filed in Israel by two inventors, one from Israel and one from Country X, and say the term of "inventorship" is defined differently in the two countries (for example, under Israeli law, both parties are co-inventors, whereas in Country X's law, only the Country X inventor is an inventor), then the questions that arise are: Which law do we apply? What would be the criteria in applying such law? We believe that the law governing multinational inventions should be the law of the country in which it was conceived and in cases where the place of

conception is not clear, inventorship should be determined based on the law of the country in which the first priority application was filed.

As mentioned above, there is no time period for filing a motion to mention an inventor's name. Other sections of the Patents Act provide that the statute of limitation does not apply to, for example, filing a motion to revoke or amend a Patent Term Extension order (Section 64(11)). We believe the same rule should apply with respect to filing a motion to mention an inventor's name.

The Japanese Group Report points out the need for understanding of inventorship issues in other jurisdictions, and also considers multinational inventions in the context of secret prior art:

Raising awareness of the erroneous finding of inventorship

- *Awareness of the problem of the erroneous finding of inventorship seems to be low in Japan. For example, attendees to an application review meeting are sometimes selected as inventors without careful consideration. Awareness-raising is desired to improve these situations from the perspective of filing of applications having multinational inventorship. As one of the means therefor, it is considered to be worth considering, for example, putting a definition of inventorship in the statutory form.*

Unification of standards for Secret Prior Art

- *Some countries have laws providing that a patent application shall be refused based on Secret Prior Art, and some other countries also have laws providing that even in such cases, a patent application shall exceptionally not be refused if the inventors of the Secret Prior Art and of the patent application are the same. The standards for the application of exceptions differ among countries. With regard to joint applications, it is required in Japan that all of the inventors of an earlier application and those of a latter application are entirely the same.*
- *A multinational invention is basically considered to be a joint invention made by multiple persons. In order to facilitate filing of applications for joint inventions (multinational inventions), it is a good idea to unify relevant provisions to the provision to the effect that a patent application shall not be refused based on Secret Prior Art if some of the inventors of the latter application are the same as those of the Secret Prior Art.*

The Report from the Philippines Group suggests that the IP Code be amended to define the term, "inventor," and suggests that the most stringent test for inventorship be established in order to avoid penalties arising from the incorrect identification of inventors.

The Singapore Group Report recommends clarifying the law as it relates to "residents" of Singapore:

Scope of Section 34(1)

This section provides that "no person resident in Singapore" shall cause a first filing of an application overseas without obtaining a Foreign Filing Licence. It is not clear whether this section only applies to persons resident in Singapore at any time during the period of the invention or only at the time of the proposed first filing overseas. It is proposed that this Section be amended such that it only applies to persons resident in Singapore at the time of the proposed first filing overseas. This will ensure that the Singapore Patents Act does not apply to persons outside the jurisdiction of Singapore, and any foreign inventor/applicant who ceases to be resident in Singapore would only be governed by the laws in the country where he is resident.

Section 34(2)

The requirement for a Foreign Filing Licence should be limited to cases where there are Resident Inventors. It clearly does not apply to patent applications where all the inventors are Non-Resident Inventors.

In the case where there are both Resident and Non-resident Inventors, the requirement to obtain a Foreign Filing Licence should still be applicable. As mentioned above, Section 34(2) which allows a Non-Resident Inventor to file overseas without a Foreign Filing Licence introduces uncertainty, especially where there are both Resident and Non-Resident Inventors. Hence, the scope of Section 34(1) and (2) should be clarified as to the obligations of the Resident Inventor when the Non-Resident Inventor first files overseas. The issue is whether the Resident Inventor could be considered to have caused the Non-Resident Inventor to first file the application overseas, and therefore be liable to punishment.

The Report from Sri Lanka suggests that consequences of a mistake in an application form for the grant of a patent in regard to inventorship (whether the error is on the face of the form or a substantive error) should be clarified.

The U.K. Group Report suggests that secrecy and first filing rules should apply only to U.K. patent applications originating entirely from within the U.K., and should not apply to multinational inventions:

We consider it somewhat illogical to apply penalties based on the country of filing of patent applications for multinational inventions. If they are multinational inventions the invention will have necessarily already left the country and be known abroad before any patent applications are filed anywhere. Separate laws (perhaps related to national security) seem the appropriate place to control the dissemination of information which a government considers might be prejudicial to the national interest. Using patent filing laws would not correct the dissemination outside the UK which has already happened.

It seems unavoidable that UK law includes some provision for a secrecy review of UK patent applications originating entirely from within the UK (i.e. not multinational inventions). This provides a mechanism for controlling publication or dissemination of information which could be prejudicial to national security. In addition, it seems unavoidable that this secrecy review should be obligatory for inventions made by inventors with a strong connection to the UK (such as residents or nationals). If there were no such restriction then foreign patent applications could be freely filed and become public, to the possible detriment of UK national security.

For these reasons, it is not believed that the secrecy provisions of UK law could be significantly improved to address multinational inventions. The fact that UK's secrecy provisions are triggered only by a narrow range of subject matter makes the system manageable. We suspect that those working in the relevant narrowly defined fields in the UK are well aware of their obligations and may have other secrecy obligations unrelated to patent law. In this regard, it is welcome that the UK provides a publically available list regarding the types of subject matter that might be considered to be relevant to national security.

The remaining 31 Group Reports either indicated that no further proposals were envisioned, or did not comment in response to this question.

III. Proposals for harmonisation

12) **Is harmonisation in this area desirable?**

All but three of the Reports (Bulgaria, Indonesia, and Uruguay) indicate that harmonization in this area is desirable. The general need for harmonisation in the international context is explained, for example, by the Australian Group Report:

Given the proliferation of inventions which are worked on in many countries at once, and the encouragement of collaboration internationally as a key factor in technical innovation, it is not rational to have widely disparate rules on inventorship, or national requirements for first filing in the case of international co-inventorship. More specifically, in a modern, Internet connected world where an invention may be readily developed by an international team, laws that possibly made sense in a paper and mail based world have become irrelevant to the dissemination of information. An international team means that the information has already left the control of a single nation. It is important that the invention and filing regimes in each country adapt to the reality of international collaborative teams.

Similar comments were raised by the Austrian, French, Greek, Italian, New Zealand, Paraguay, Philippines, and U.K. Groups. The German Group Report addresses the need for harmonisation from the perspective of determination of inventorship and first filing / secrecy provisions:

Presently, the question of who is recognised as an inventor of a particular invention may be answered differently in different jurisdictions. In particular, many jurisdictions define “inventorship” or “involvement in an invention” in Case Law with more or less ambiguous instructions to the industry. Considering the increasingly involved multinational teams working on product developments, problems do exist with regard to the actual decision on legally relevant contribution of persons to the inventions. That question is often finally decided by the persons of the team themselves without having a clear understanding of the different (national) requirements. As that decision has different effects on the question of “actual” ownership of patents or patent applications directed to the same invention between the counterparts being subject to different jurisdictions, harmonisation is highly desirable.

Harmonisation is even more mandated with respect to first filing and secrecy review requirements, which in extreme cases may lead to the result that no patent application can be filed in any jurisdiction without violating criminal law in one of the jurisdictions where the inventors are domiciled or of which the inventors are nationals. Due to the existing differences, applicants or their agents are oftentimes not aware of the requirements existing in foreign jurisdictions, which may lead to loss of rights in these jurisdictions, or even criminal sanctions.

The Israeli Group Report stresses the need for harmonisation of the rules governing choice of applicable inventorship law, but does not see a pressing need for harmonisation of substantive inventorship law. Conversely, the Japanese Group Report stresses the need for international harmonisation of the definition of inventorship, to avoid cost or loss of rights due to an error in stated inventorship under a certain country's laws. The Japanese Group Report also suggests that harmonisation should be further achieved in relation to whether determination of inventorship is made on a claim by claim basis or based on the content of the entire disclosure.

13) Please provide a definition of inventorship that you believe would be an appropriate international standard.

34 Reports provided proposed definitions of inventorship. Although this reflects a strong consensus that a harmonized definition is desirable, and while there are strong themes relating to contribution, creative involvement, and conception, there is substantial diversity in the actual language of the proposed definitions. The numbers in parenthesis indicate the number of Reports supporting this or substantially similar language.

- Made or contributed to the invention (2)
- Substantial contribution to the invention (1)
- Substantial contribution to the conception and/or production of the subject matter of at least one claim covering the invention (1)
- Creative technical contribution to the invention (1)
- Creative and substantial contribution to the invention (2)
- Substantial engagement in the creative process of the invention (1)
- Active contribution in development of the inventive concept (1)
- Joint creative activity (1)
- Participation in (or contributes to) the conception of the invention (3)
- Conceived and reduced to practice the invention (1)
- Conceived and/or reduced to practice the invention (2)
- Contribution to the inventive or creative essence of the invention (1)
- Contributed directly and effectively to creation of the invention (1)
- Contributes in a non-frivolous manner to the construction / creation of a patentable invention (1)
- Significant contribution to the formulation of the inventive concept (1)
- Significant intellectual contribution to one or more features of the invention, where such features: 1. are contained in a written disclosure as a whole and, in the case of a granted patent, also defined in at least one of the patent claims; and 2. Distinguish the invention from the relevant prior art in a manner that makes it novel and non-obvious (1)
- Independent, intellectual contribution to the invention (3)
- Contributes to the creative concept underlying the invention (1)
- Conceived or contributed to conception of the underlying concept of the invention (2)
- Effective contribution in the work leading to the inventorship (1)
- Creator, conceiver, and/or originator of any or all patentable elements of the invention (1)
- Created invention as a result of his/her inventing activities (2)
- Contributes any part of his/her ingenuity, skill, or technical knowledge to the invention (1)
- Devises, creates, or conceives an innovating solution to a technical problem (1)
- involvement in the development of the teaching by contributing an achievement which exceeds the ordinary skill of the person skilled in the art, which has substantial influences on the overall success of the inventive achievement, and which is made at least partly on own initiative (1)

A common theme throughout is that most reports talk about inventors being those who contribute in some way to the conception of the invention. Of these proposed definitions, seven Reports propose that inventorship be determined based upon the invention as defined in the claims. The remaining reports support an entire disclosure support or are silent on this issue.

The French Group Report suggests, with regard to the choice of inventorship law issue, that the law applicable to the determination of inventorship should be the law of the contract under which the inventor contributes to the invention. The Sri Lankan Group suggests that, in lieu of

an international standard of inventorship, granted patents should not be set aside or invalidated due to errors or omissions in the listed inventorship. The Polish and Italian Group Reports indicate that an international standard for definition of inventorship is not necessary.

14) Please propose a standard for correction of inventorship after a patent application is filed, together with any requirements necessary to invoke this standard (e.g. intentional versus unintentional error) and any timing requirements (e.g. during pendency of the application).

38 Reports proposed standards for correction of inventorship, 100% of which support availability of correction. However, there is wide diversity as to many details of the standard. The number in parenthesis indicates the number of Reports that supported the listed aspect of a potential standard.

- Voluntary, liberal pre-grant standard (8)
- Discretionary after grant (1)
- Consent of affected inventors (4)
- Consent of all inventors (9)
- Consent of applicant / owner (4)
- Unintentional error only 3
- Intentional error only (post grant) (1)
- Intent not relevant (6)
- Patent office proceeding post-grant (2)
- Court proceeding post-grant (2)
- No time limit (18)
- 1 year from grant date (1)
- 2-3 years from grant date (1)

15) If you believe such a requirement is appropriate, please propose an international standard for first filing requirements that would take into account multinational inventions.

Of the 36 Reports that answered this question, a significant majority of 26 Reports indicate a belief that first filing requirements are outdated and no longer necessary, particularly in the context of multinational inventions.

The Australian Group Report, while expressing a preference for no first filing requirements, proposes as a compromise limiting first filing requirements to specific areas of technology that would be prescribed by each country. The Spanish Group Report, while also expressing a preference for no first filing requirements, proposes the following detailed standard:

The Spanish Group understands that there may be specific circumstances (for example, when an invention may affect national, regional or international security) where measures aimed at preventing the general disclosure of an invention may be justified. To address these situations, the Spanish Group proposes the following standard:

1. If a country is a party to the NATO Agreement on Safeguarding Defence-Related Inventions of 21 September 1960, or to an international treaty containing similar secrecy obligations for the parties to the treaty, and according to the law of a party to such treaty the patent application should be filed first in that country, the patent applicant should also be allowed to file its patent application first before any of the countries which are a party to such treaty, provided that the parties to such treaty comprise the country where the invention was made.

2. *Subject to paragraph 1, for the purpose of determining whether a country is allowed to require that a patent application for an invention be filed first in that country, the following principles should apply:*
 - a. *A country may require that a patent application for an invention be filed first in that country if the invention has been made in that country, regardless of the permanent residence of the inventors.*
 - b. *Where the invention has been the result of activities carried out in more than one country:*
 - i. *A country may require that a patent application for an invention be filed first in that country if said country is the country where the most substantial intellectual contribution to the invention has been made.*
 - ii. *In the absence of evidence to the contrary, it will be presumed that the country where the most substantial intellectual contribution to the invention has been made is the country where the invention was conceived (i.e. the country where the original idea for the invention was proposed). However, where inventors other than the inventors who conceived the invention carried out activities that solved problems not identified by the former, and/or that they could not solve, and solving such problems was necessary to put the invention into practice, the country where the most substantial intellectual contribution to the invention has been made will be presumed to be the country where the activities that solved such problems were carried out.*
3. *If a country establishes penalties for applicants who fail to comply with First Filing Requirements, such penalties should only apply if the invention concerned is directly related to national defence, and according to the corresponding national authorities, the patent should have been prosecuted in secrecy. Any penalties should be reasonable and commensurate to penalties established for failing to comply with other similar administrative requirements. In particular, such penalties should not include the loss of the rights deriving from the patent application.*

The Austrian Group Report, which also expresses a preference for no first filing requirements, submits an alternate proposal where international applications would be considered as valid (single) first filing in all requiring countries. The Belgian Group Report, again expressing a preference for no first filing requirements, suggests an alternative where any such requirements are harmonised on the international level and are based exclusively on the nationality or registered office of the applicant.

The French Group Report proposes a standard under which choice of law relating to first filing would be harmonised, and free choice of country of first filing, based on applicable law, would be available for inventions related to unrestricted technologies. Inventions relating to technology such as military items or dual use technologies would still be regulated by different, potentially conflicting, national requirements.

The Indonesian Group Report proposes a standard whereby, in the case of multinational inventions, the first filing could be made in any country agreed by the multinational inventors. The Israeli Group Report raises the possibility of obtaining a “pre-ruling” accepted by all relevant countries in the case of a conflict of first filing requirements. The Italian Group Report suggests that foreign filing licenses should always be available. The Dutch Group Report proposes that NATO member states should allow filing in every member state.

The Paraguay Group Report suggests that the requirement for first filing must be required if the invention is intended to be used in the country in where the invention was made and regardless of the nationality or domicile of the inventor(s). The Philippines Group Report suggests that the country of first filing should be left entirely to the discretion of the parties involved.

The Polish Group Report, while noting that an international standard for first filing requirements would be desirable for multinational inventors/applicants, believes such a standard would be extremely difficult given the national security implications. The Singapore Group Report suggests that the first filing requirement should apply irrespective of the technologies involved and should apply in all cases where there is a resident Inventor. The US Group Report proposes a joint filing mechanism among or between involved countries:

For applications involving multinational inventions i.e., involving conflicting first filing requirements of two or more countries and which do not come under the umbrella of technology for which the secrecy review seeks to prevent the filing thereof abroad (e.g., technology that includes national secrets or impacts national security), the involved countries shall allow filing in either country as the first filing through a joint filing mechanism wherein a filing in either country which identifies the countries in which first filing for such application is required is deemed to be filed in each affected country on the same day and considered as having been filed first in the respective country.

16) If you believe such a requirement is appropriate, please propose an international standard for secrecy review requirements that would take into account multinational inventions.

Of the 36 Reports that responded to this question, 14 Groups indicate a preference for no secrecy review requirements, 9 Groups propose a standard that would be provide for security review of national security-related technologies only (two of which propose a non-mandatory self-assessment system), and 9 Groups indicate that national laws should control and a harmonized international standard is not appropriate. The Israeli and Dutch Group Reports repeat their proposals from question 15 above. The Italian Group proposes its national standard. The Chinese Group Report provides a detailed proposal, based on its national law:

In our opinion, in order to provide the government with an opportunity to review the subject matter and ensure that certain categories of information are not transmitted outside the country, secrecy review is required before any patent application claiming an invention made domestically is filed abroad.

Similar with the modes used in China, there could be three modes to complete the procedure of international standard for secrecy review:

(1) If the applicant intends to first file the application in a foreign country without a domestic filing first, a request for secrecy review shall be filed in advance with its Intellectual Property Office (IPO). IPO will conduct the secrecy review, and issue a notification to the applicant promptly where the application is possibly to be handled as a secret. If the application passes the secrecy review, then this application should be free to be filed abroad.

Under this mode of requesting secrecy review, a description for the technical solution of the invention must be submitted together with the request for secrecy review.

(2) If the applicant intends to second file the application in a foreign country after a domestic first filing, a request for secrecy review is still required before it can be filed in a foreign country. The behavior of first filing the patent application domestically does not meet formality requirement of filing a request for secrecy review. That is, a separate request for secrecy review needs to be filed along with or after the filing of the domestic application.

Under this mode of requesting secrecy review, since a domestic application was filed in advance, no additional description for the invention is needed.

(3) If the applicant files the application as a PCT application with an IPO as the Receiving Office, a request for secrecy review is deemed as being simultaneously filed, that is, no separate request for secrecy review is needed to be filed.

17) If you believe such a requirement is appropriate, please propose an international standard for obtaining a foreign filing license.

Of the 35 Reports that responded to this question, 15 Reports indicate a preference for no foreign filing license requirements, eight Reports indicate that an international standard for obtaining a foreign filing license would not be appropriate and national laws should apply, and four Reports suggest that foreign filing licenses be limited to national security-related technologies only. The Belgian and Singapore Group Reports suggest that, if there are foreign filing license requirements, then it should be agreed that filing a request for a foreign filing license in one country is not a violation of first filing or disclosure laws of another.

The Chinese Group Report and the Israeli Group Report make reference to their proposals reproduced above. The Italian Group Report proposes the Italian standard for obtaining a foreign filing license. The Dutch Group Report suggests that foreign filing licenses be required outside of NATO member countries only.

The Japanese Group Report, while expressing a preference for no foreign filing license requirements, proposes the following standard:

- *It is preferable that there is no foreign filing license system. The following international standard is desirable if a foreign filing license system is necessary.*
- *Applications that require a foreign filing license are limited to applications in the same areas as the areas to which first filing requirements apply.*
- *A clear standard for the subject of application (limited to enumerated subjects) is necessary.*
- *The international standard provides that a ruling granting a foreign filing license shall be deemed to have been issued unless a ruling refusing the grant of a foreign filing license is issued within the prescribed period.*
- *It is made possible to file a request for a foreign filing license before filing an application in a country in which said request is filed.*
- *The content of an international standard (for a secrecy review) to obtain a foreign filing license is as stated in the answer to Q16. However, if an applicant is entrusted with selection of cases subject to first filing requirements, he/she is expected to fulfill the requirements by having a secrecy review conducted on the cases "that may become subject to the requirements," which are peripheral to the cases considered to be subject to the requirements, through first filing in order to avoid the situation where the applicant is subsequently considered to have failed to fulfill the requirements (situation stated in Q18). Some of such peripheral cases are considered to be based on the premise of a foreign filing. Therefore, it is desirable that a time limit, such as half a year after a first filing, is set (clearly stipulated) in relation to a notice of a ruling concerning the grant of a foreign filing license and that there is a standard that a foreign filing license is deemed to have been granted unless such a notice is issued within the time limit.*

The Polish Group Report suggests that while each country should be free to establish their own conditions, countries having first filing requirements should be obliged to ensure that a foreign filing license may be obtained under reasonable conditions.

The Spanish Group Report proposes the following standard:

- *Countries should introduce procedures allowing patent owners to obtain a Foreign Filing License.*
- *Like all Rules on Multinational Inventions, Rules for obtaining a Foreign Filing License should be prepared and applied in an impartial, transparent, predictable, consistent, fair and neutral manner.*
- *If a country is a party to the NATO Agreement on Safeguarding Defence-Related Inventions of 21 September 1960, or to an international treaty containing similar secrecy obligations for the parties to the treaty, and according to the law of a party to such treaty the patent application should be filed first in that country, that country should accept granting a foreign filing license allowing the patent applicant to file its patent application first before any of the countries which are party to such treaty, provided that the parties to such treaty comprise the country where the invention was made.*
- *Procedures for obtaining a Foreign Filing License should comply with the principles of the TRIPS Agreement. In particular, they should be fair and equitable. They should not be unnecessarily complicated or costly, or entail unreasonable time limits or unjustified delays. Parties should have an opportunity for review by a judicial authority of final administrative decisions relating to Foreign Filing License*

18) Please propose an international standard for an ability to cure or repair an inadvertent failure to comply with a first filing requirement or a security review requirement.

Of the 43 Reports that responded to this question, 9 Reports indicate that an inadvertent failure to comply should be curable retroactively, although these reports disagree as to whether this cure is applicable to national security-related technologies. For example, the Philippines Group Report proposes the following standard:

- *Inadvertent failure to comply with first filing requirements and security reviews should be amenable to correction by expedient mechanisms. The remedy may be in the form of filing a request for correction/request for secrecy review and payment of the corresponding fee.*
- *However, if the patent involved covers military technology, technology that may compromise national security, or technology that may prejudice public safety, non-compliance with the security review requirement should result in the loss of right over the patent.*

Eight Reports indicate that there should be no such ability to cure, because the underlying first filing and security review requirements should not exist. Seven Reports suggest that a standard is not appropriate in this area. The Chinese and Greek Group Reports argue that a retroactive cure should not be allowed at all, while the German Group Report suggests that a retroactive cure is not appropriate for filing or disclosure errors relating to national security-related technologies. In contrast, the Austrian Group Report suggests that full reestablishment of rights should be available.

The Group Reports from Denmark and Poland note that the availability of any cure should depend on whether publication has occurred. The Indonesian Group Report proposes that while failure to comply with a first filing requirement may be cured by filing appropriate documents and a fee, failure to comply with secrecy requirements may result in a loss of rights. The Italian Group Report proposes the Italian standard.

The Japanese Group Report proposes a standard as follows:

- *It is appropriate to permit the imposition of a disadvantage on the applicant if a failure to comply with a first filing requirement was intentional.*
- *It is desirable that the following standard is set: If an applicant failed to comply with a first filing requirement or a security review requirement due to negligence, the failure is cured or repaired if the applicant files an application again by disclosing the status of applications filed in other countries after taking such procedures as waiver and withdrawal to put the applications filed in other countries into the status that they are not disclosed before they are disclosed.*

The Spanish Group Report suggests the following principles:

- *Countries should allow applicants to obtain a retroactive Foreign Filing License when an applicant has failed to comply with a First Filing Requirement or Security Review Requirement.*
- *Countries may refuse to grant a retroactive Foreign Filing License when it is established that the applicant intentionally failed to comply with a First Filing Requirement and/or Security Review Requirement.*
- *Like all Rules on Multinational Inventions, Rules relating to the rectification of failures to comply with a First Filing Requirement or Security Review Requirement should be prepared and applied in an impartial, transparent, predictable, consistent, fair and neutral manner.*
- *Procedures should comply with the principles of the TRIPS Agreement. In particular, they should be fair and equitable. They should not be unnecessarily complicated or costly, or entail unreasonable time limits or unjustified delays. Parties should have an opportunity for review by a judicial authority of final administrative decisions relating to foreign filing licenses*

19) Please propose any other standards relating to multinational inventions (excluding those related to inventor remuneration or ownership of the invention) that you feel would be appropriate.

The Austrian Group suggests that the most relaxed requirements of all countries of residence of the inventors should be applicable.

The Chinese Group suggests that the most important item is the harmonisation of “multinational” to mean the geographical locations where the research is conducted without considering the citizenship of the inventors or the laws under which the employment contracts are signed.

The Finnish Group suggests that in no case should an error in the identification of an inventor, whether intentional or unintentional, be grounds for invalidating a patent.

The Report from Hungary argues that freedom to act is the best solution; namely, that the parties should be free to choose where to file first.

The Japanese Group makes the following proposal regarding the requirements for joint inventorship and secrecy reviews:

- *An invention must have been jointly made for the establishment of joint inventorship, and a joint invention must have been jointly made both subjectively and objectively. However, even where part of an invention was subjectively jointly made and another part was independently made,*

the invention as a whole should be found to be a joint invention if it fulfills certain requirements. In other words, if part of an invention that was jointly made alone is not found to involve an inventive step but can be considered to be a feature of the invention, the invention as a whole should be found to be a joint invention.

- *According to one popular theory, a joint invention must have been jointly made both subjectively and objectively. A possible example case is as follows: A and B conducted joint development and invented an automobile that is recognized as being novel and involving an inventive step; and B invented a structure wherein the rearview mirror of said automobile is slightly improved while keeping it secret from A after the end of the joint development or during the joint development, and independently filed a patent application for a structure wherein said rearview mirror is added to said automobile.*
- *In this case, if said rearview mirror itself has a technical significance based on which it is found to involve an inventive step, there is room for the approval of B's independent patent right. However, if said rearview mirror has no substantial technical value and falls under the scope of being "(substantially) identical" as set forth in Article 29-2 of the Japanese Patent Act, it is unreasonable to approve B's independent patent right in relation to the structure wherein said rearview mirror is added to said automobile, and it is desired that the structure is considered to be a joint invention of A and B. However, according to one popular theory, the invention becomes B's independent invention as there is no subjective relationship between A and B in relation to said rearview mirror.*
- *Some say that such conclusion is unreasonable and that such an invention should be found to have been jointly made as a "deemed joint invention." However, this theory is not necessarily favored by the majority. As one of the solutions, it is hoped that law will provide that an invention is found to have been jointly made as a "deemed joint invention" despite lack of a subjective relationship between the parties if the part in which the parties have no subjective relationship has no substantial technical value and falls under the scope of being "(substantially) identical" as set forth in Article 29-2 of the Japanese Patent Act.*
- *Clarifying the scope of application of a secrecy review*
- *One of the means for avoiding the problem caused by a secrecy review seems to be not conducting multinational research and development in the areas in which inventions subject to a secrecy review are created, on the premise that the concept of a "country" in a multinational relationship refers not to nationality but to the place where an invention is created. If standards for the areas and scope to which a secrecy review applies in all countries with a secrecy review system are made clear, it would be possible to make clear the countries from which one should stay away in multinational research and development or the areas in which there is no problem with conducting multinational research and development, including such countries.*

The Mexican Group Report suggests that multinational inventions should not be treated differently nor have special standards for inventors based on their nationality.

The Russian Group Report indicates that multinational inventions should be excluded from first filing and state secret regulations.

The US Group Report makes the following proposal regarding correction of inventorship:

- *If an incorrect indication of inventorship is made on a patent application, the consequences of this error vary from country to country. The issued patent may be held to be invalid or unenforceable in some jurisdictions but not in others. The error may be correctable in some countries, but not in others.*
- *We would propose:*
- *That a significant and growing part of subject matter protected by intellectual property in today's world is created within the framework of multinational jurisdictions encompassing collaborative research projects having multiple inventors domiciled in multiple countries.*
- *That the existence of considerable differences between national laws concerning how to correct inventorship to intellectual property causes complications and problems for cross border R&D both within multinational enterprises and for cooperation between companies.*
- *That the correction of inventorship in pending patent applications and patent grants should be governed by harmonised rules since it affects their prosecution and their enforcement.*
- *That progress has been made towards establishing a unified approach for the public and stakeholders to access basic patent file information known as the Global Dossier.*
- *That the corrective procedure rules should initially at least provide for correction of inventorship before an administrative agency, generally this will be a national/regional patent office, and that the rules should provide for uniform data fields, at least in part, that allow for an automated process to initiate changes across multiple counterpart patent assets with an ultimate goal to have a centralized automated approach to correct inventorship in multiple jurisdictions in a simple and cost effective way. [Harmonisation in determination of inventorship will make this goal more achievable.]*

The Swiss Group Report suggests that if national requirements relating to questions 15-17 cannot be abolished, a central deposit for filing patent applications could be established to secure a filing date without any breach of national law.

The Spanish Group suggests that the members of the World Trade Organization should, in due course, negotiate an international agreement on "multinational inventions" called "Rules on Multinational Inventions" that could be inspired by some of the standards on which the "Agreement on Rules of Origin" is based. As an alternative, new rules governing "multinational inventions" could be introduced in a future amendment of the TRIPS Agreement, although this option would probably be less preferable, taking into account the foreseeable political difficulties that amending the TRIPS would entail.

The Swedish Group notes that it has discussed a possible abolishment of the requirement of stating the names of the inventors in a patent application in case the stated ground for the applicant's acquisition of the rights to the invention is an employer/employee relationship with the inventor and the applicant represents that the inventor has waived the right to be named as such. This would open the possibility to file patent applications on the result of research made in multinational groups of companies, without having to include the names of the inventors and consequently no detailed assessment of inventorship would have to be made for purpose of those patent filings.

IV. Conclusions

Multinational inventorship

The Group Reports evidence strong support for harmonization of the definition of inventorship. Many Groups indicated support for codifying a definition of inventorship in their patent law to provide additional clarity and guidance. However, while the suggested definitions for inventorship are mostly closely related in substance, they vary significantly in the form of expression. The key terms found in many of the proposed definitions are “substantial” or “effective” participation in or contribution to conception of an invention claimed in a patent or patent application.

Correction of inventorship

The Group Reports strongly support the ability to correct inventorship after the filing date. However, there are differences as to the permitted time delays (the most support being for no time restrictions), differences in pre- versus post-grant procedures, and the effect of an unintentional versus intentional error. Despite these differences, a substantial level of consensus exists as to the fundamental concepts.

First filing requirements

The Group Reports express strong support for abolishment or, at least, simplification of first filing requirements. If first filing requirements cannot be abolished entirely, then there is very strong support for ensuring that the “Catch 22” situation of multinational inventors residing in countries with conflicting first filing requirements is avoided. Abolishment of first filing requirements in favour of technology-limited security reviews to protect national interests may find some traction among the Groups.

Secrecy reviews

Although many Reports would support abolition of secrecy reviews, other Reports note that this is the purview of national laws and an international standard would not be appropriate. A number of comments address making secrecy reviews less burdensome, by limited the technical subject matter required to be submitted for review and by shortening the time allotted for secrecy review.

Cure of violations of first filing and secrecy review requirements

The Reports represent the full range of possible options in responding to this issue, from arguing for the full reestablishment of rights in all cases, to allowing cure for inadvertent violations only, to allowing no cure whatsoever. Some Reports suggest different rules for violations involving national security-related technologies versus unrestricted technologies, and others suggest different rules for violating a first filing requirement versus a security review. Overall, most support is in the middle; seeking a balance between allowing cure for a genuinely inadvertent error and providing appropriate motivation for applicants to comply with national requirements.