



Correspondence Address: c/o Lloyd Wise, 11 Keppel Road, #09-01 RCL Centre, Singapore 089057

Tel: (65) 6227 8986 • Fax: (65) 6227 3898

The Registrar of Trademarks and Patents
Registry of Trade Marks & Patents
51 Bras Basah Road
#04-01 Plaza by the Park
Singapore 189554

3 September 2009

Dear Madam

Re: Proposed Changes to the Patent System 2009

[001] We have considered the proposals as made available on the IPOS website and have a number of comments which are set out below. However, we wish to congratulate IPOS on the proposals and the proposed changes and for stimulating discussion in the patent system of Singapore. Due to the large number of significant changes, we trust there will be discussion and the possibility of further exchange of information and comments before the changes progress.

[002] We generally support the proposals and believe that some changes are required to fully maximize the effect obtained for the benefit of all. We also believe there are other consequential and related changes that should be implemented at the same time for the benefit of the Singapore patent system, those involved with it and in particular applicants.

[003] As a general consideration we note that it is difficult to provide useful feedback on the proposed changes without seeing the proposed language in the Act and Rules, and the transitional provisions. Being able to review the actual language allows for comments that may alleviate any interpretational ambiguities resulting from the specific language used.

[004] Rule 108 provides a good example of why this is desirable. Under R108(3), A time or period prescribed in [multiple rules] shall, if not previously extended, be extended for a period not exceeding 3 months upon filing Patents Form 45 before the end of the period for which extension is sought.

[005] A plain reading of the rule would seem to indicate that an Applicant is entitled to a 3 month extension under, for example, Rule 9A(5), if an extension under this rule has not previously been granted. In the same application, the Applicant should also be entitled to a 3 month extension under, for example, Rule 43, if an extension under this rule has not previously been granted.

[006] However, IPOS has interpreted the language of Rule 108(3) to mean that only one extension of time as of right is available for an application under any of the cited rules, i.e. under the IPOS interpretation, the Rule should read "shall, if no previous extension has been granted under any of the above rules". IPOS did address one aspect of this in April (effective 28 May), allowing a three month extension under R108 (3) for applications previously extended under the slow track.

[007] Such interpretational ambiguities can be avoided by carefully drafting the Act and Rules, and providing a comment period to ensure that the Act and Rules are interpreted the same way by all parties.

[008] In our comments we will refer to the numbered paragraphs and with the same headings.

2 Proposed Changes to the Patent Self-Assessment (PSA) Regime

[009] Before considering the proposed changes we believe there is a preliminary aspect that needs to be addressed. At present Singapore applications subject to examination, or search and examination, are considered by contracted, overseas patent offices. At present you use the Austrian, Australian, and Danish patent offices. You have no published guidelines, manuals or other documents to which we or they can refer to determine how this examination is to be conducted. The only exception is the Chapter of the "Patent Manual of Practice and Procedures" of the Australian patent office that deals with Singapore applications. In that chapter it is stated that the agreement with IPOS:

[010] "... provide for reporting in accordance with certain PCT rules and, in general, the PCT international search and preliminary examination guidelines".

[011] This is a fundamental problem. Search and examination is being conducted under PCT rules and not under Singapore law. It is admitted that for a substantial portion of Singapore law there is compatibility, if not almost complete overlap, with the PCT and its rules. However, when one considers aspects such as unity of invention, industrial applicability, statutory exclusions and inventive step, there are differences. Furthermore, when each of the contracted offices conducts its search and examination they do so with their own national office "spin" on the PCT search and examination guidelines. For example, Austria follows the EPO in providing a very strong rule on unity of invention, whereas the Australian patent office tends to apply what is closer to Singapore law and is thus far more generous. There needs to be consistency.

[012] These aspects have been discussed with representatives from the contracted offices. The representatives from both Austria and Denmark have agreed that they are under the same contractual obligation as the Australian patent office.

[013] It is therefore essential that some form of examination manual be prepared for use by the contracted search and examining offices so that all examine to the same standard and with the same principles of patentability and practice in mind. It must also be available to patent agents practicing in Singapore so that there is clear, public acknowledgement of what these principles are. Such examination manuals are very common and many offices have them. Drafting such a manual is not an easy task. Many of the contracted offices will have their own manual that has been established over many years. We strongly recommend that the examination manual of the United Kingdom patent office be relied upon as the fundamental source of an examiner's manual for Singapore as many aspects of Singapore patent law and practice are drawn from the equivalent provisions in the United Kingdom. Where there are differences (and these will primarily relate to statutory exclusions) they can be revised taking into account examination manuals from countries that have laws similar to Singapore. For example, the United Kingdom has statutory exclusions on patentability on programs for computers and business methods. But Australia and the United States have no such statutory exclusion. Considerable information may be drawn from their examination manuals, both of which are publicly available over the Internet.

[014] On behalf of this association, we volunteer to assist IPOS in the preparation of such an examination manual and examination guidelines.

[015] In the exemplified areas of computer programs and business methods there has been no guidance from Parliament or the Courts in Singapore as to what should and should not be patentable in Singapore. We believe a healthy, open and public debate in this area would be of great assistance in preparing examination guidelines, and to enable sufficient direction be given to examiners so that they have no misunderstanding as to what is and what is not patentable in Singapore. Naturally, as cases are published and decision handed down in the court and from IPOS, these guidelines can be revised. This is normal, and would apply to all aspects of the examination manual. There should be no fear that guidelines may be changed.

[016] The manual should also cover procedural matters, in particular the timeliness of the work that is needed to be done by each of the contracted offices. From the Australian patent office manual we note that the time limits applied are:

1. a search report to issue within three months of receipt of the communication from IPOS requesting issuance of the search report;
2. an examination report is to issue within two months of receipt of the communication from IPOS requesting issuance of the examination report;
3. search and examination reports are to issue within four months of receipt of the communication from IPOS requesting issuance of the search and examination reports; and
4. a further written opinion should issue within one month from receipt from IPOS of the response to the earlier written opinion.

[017] Unless all contractually imposed time limits are followed, it will be very difficult for many of your subsequent proposals to be implemented. We are all aware of delays (that sometimes run to years) in consideration of Singapore applications. Delays of that order must no longer take place and certainly must not result in loss of rights for the applicant, by virtue of R 109, for example.

[018] Consistency in the standard of the search and/or examination of Singapore applications across the three offices and how that may be achieved is a very practical issue and should be a requirement of the examination procedure. It is best resolved by having clear, concise and well written examination manual that addresses all aspect of the patent prosecution system (i.e. filing to grant; and all substantive post grant matters) in Singapore. We strongly submit that there be discussion on the major aspects of patentability (some of which are mentioned below) between all interested parties but particularly by those who are dealing with such issues on a daily basis - those who file and prosecute to grant patent applications filed in Singapore and by Singaporeans, and those who search and/or examine such applications. At present applicants are being severely disadvantaged by the present inconsistent standards being applied.

[019] The consistency in examination should also apply to the tests for unity of invention. Our members are receiving significantly different results from Austria and Denmark, and Australia. None appear consistent with Singapore law. The tests being applied by all foreign offices are, at times, quite inconsistent with Singapore law. The law in Singapore is clear; it's just that it is different to those of all the examining authorities. The examining authorities need to apply Singapore law, not Australian or EPO law.

[020] 2.2.4/5 It is to be noted that the current clarification procedure does not always work. Sometimes applicants have attempted to seek clarification with the examiners, or to try to agree on an acceptable amendment as they require a clear examination report (for example, to sue an infringer). Due to the lack of an appeal (the Registrar is not exercising discretion) applicants are presently faced with a very poor option.

[021] 2.2.6 The period of one month is too short and not long enough to consider any reasons that may be given by the examiner. The period should be three months. Furthermore, if the report is mixed, there should be an opportunity given to amend the application in a manner which accepts the allowed claims and to delete the others without the necessity of requesting a hearing. Therefore, at that time the applicant should be able to exercise one of two options – amend to essentially accept what is stated by the examiner in the mixed report, or request a hearing the report is completely negative or mixed.

[022] 2.2.7 We disagree that the independent examiner must be from the same examination office. Which office is used may be required to be determined upon a consideration of the facts of the case., For example, if the application is for a program for a computer or a business method and is within the area that is statutorily excluded under EPC law, examiners in both Austria and Denmark will have no experience in dealing with patent applications in that area. It may therefore be appropriate for the hearing officer to be from the Australian patent office. As it is an independent examiner they will be looking at everything freshly. It is in effect an appeal de novo. As such, the office should not be fixed as being from the same office. It should be significantly flexible to give the Registrar the ability to determine which office is most suitable, can deal with the matter in the best possible way, and which can deal with the application in a most timely manner. This is particularly the case where there is no examination manual, since lack of consistent examination across the offices can be balanced by a hearing officer who is not only independent of the examiner but is also independent of the office that conducted the examination.

[023] Furthermore, it should not be just an examiner but an examiner at a senior level, such as, for example, a principal supervising examiner from the Australian patent office. The Australian patent office has a designated hearing section and it may be appropriate to draw the hearing officers from that hearing section.

[024] The option should be allowed for the examiner to be present in Singapore and not just via video and/or audio-link. For example, if there is a family of cases all closely related and all having the same objections it may be economically viable and procedurally far better to have the hearing face-to-face in Singapore. The cost of bringing in an examiner to Singapore in that case may be justifiable.

[024] Having a separate hearing provision also presents an opportunity for IPOS to start a nascent examination section in Singapore by having resident examiners. One possibility is to ask each patent office to transfer one senior examiner to Singapore for a five year period (and subsequently on rotation). That would yield three senior examiners who together would conduct hearings in Singapore, in a similar manner to the EPO Board of Appeal, which has three members. Each should have a different technical specialisation (Chem/Biochem, Electronics and Mechanical, e.g.) with the one with the relevant technical specialisation being the Chairman for cases in his technical field. Together they would be able not only to handle technical hearing matters, but also to train technically qualified Singaporeans in examination duties, thus transferring knowledge so that in time Singapore examiners could take over examination of cases where no local searching is required and ultimately take hearings themselves. These senior examiners could be the ones to together write the first draft of the examination manual. Since each would be from one of the participating patent offices they would be ideally placed to resolve issues of differing practice between their offices.

[025] And finally we strongly submit that the fee should be payable in two stages. There should be a first fee payable when requesting a hearing and a second fee payable for attending a hearing. This is because history has shown that it is not unusual for the hearing office to either overrule the examiner and withdraw the objection and thus allow the application to be able to proceed to grant, or to provide an indication to the applicant that upon certain amendments being made the application can be approved. Some times this may be to combine claims. In other instances it may be merely to clarify the wording of the claims. The experience of the Australian patent office in this regard has shown this is not an unusual situation. Similarly for USA. By having the fee split in two the situation is covered.

[026] 2.2.8 Whatever the outcome of the hearing, the decision should issue within a prescribed time from the hearing date and must be accompanied by a fully reasoned and explained decision as one would expect of the Courts. The date of sending of the written decision to the applicant should trigger the deadline for filing an appeal. One only has to consider appeals from decisions of patent offices to the courts in other jurisdictions such as Europe, UK, Australia and USA to determine that the Courts rely upon the hearing officer's reasoning. It quite often gives them guidance as to the hearing officer's state of mind. It also enables them to address issues where the hearing officers may have erred in law so that all subsequent hearing officers would not make the same error. The hearing should be treated in the same manner as an appeal to the court and thus should maintain the application pending even if it exceeds the statutory deadline for paying the grant fees. An opportunity must be given to file a divisional application within a relatively short but prescribed period of, for example, one month after the decision is sent to the applicant.

[027] Additionally, the Applicant should be able to amend the specification to correct minor errors, and to bring the Summary of Invention section and Abstract in line with the allowed claims. Finally, why should an Applicant be precluded from adding dependent claims to the independent claims already allowed? No examination should be necessary in this case. The additional claims merely serve to provide additional limitations on already allowed claims. Whether or not such additions are allowed as post grant amendments is still an open question, i.e. does adding dependent claims "extend the scope of patent protection"?

[028] 2.2.9 It seems strange that the applicant will not be able to submit amendments after a positive examination report and after grant. Quite often an applicant will have new prior art cited in a different jurisdiction. Should the applicant be prevented from amending their claims to overcome the prior art so that the Singapore patent is granted with claims that may be invalid? We submit they should not. We submit that public interest is best served by allowing the applicant to amend the claims to overcome the prior art but provided an adequate explanation is given to the Registrar. Naturally, that amendment would have to be examined and the fee payable should reflect the circumstances.

[029] In the past the Registrar has advised that the guidelines to the Registrar from the Ministry are that there should be cost recovery at each stage of the application process. With that we disagree as has been explained in the past. It is common practice for patent offices around the world to have cost recovery, but not at every stage. For example, in the UK patent office, the filing fee is a little higher than in Singapore, the renewal fees are some what higher, but the search and examination fees are significantly lower. The extra "profit" from certain stages (e.g. renewal) is used to subsidise the more expensive stages for the benefit of all applicants and patentees. The same procedure is followed in the patent offices of Germany, Austria, Australia and USA, to name only a few. So an Australian applicant for an Australian application pays a significantly lower fee for search and examination than a Singapore applicant for a Singapore application where the search and examination is performed by the Australian patent office. The work is the same, but the fee is significantly different. And the Australian applicant is not restricted to the number of written opinions or responses thereto. Without such a subsidy, cost recovery at each stage is a good reason for abolition of renewal fees.

[030] Furthermore, the grant fee payment is to still to be capped as a time from the priority date (with which we disagree). If the applicant has proceeded quickly there may be a considerable time from the date of a positive examination report to the due date for paying the grant fees. In that time there is considerable likelihood of search reports and/or examination opinions being received in many other jurisdictions. There seems to be no problem in amendments being filed prior to paying the grant fees as long as the scope of the claims is within the scope of the claims found acceptable to the examiner. For example, if claim 1 is found to be invalid due to prior art cited in another jurisdiction, the applicant may merely require claim 2 to be combined with claim 1 to overcome the prior art. This is a relatively simple procedural amendment. Claim 1 is still a related claim.

[031] Furthermore, if the report is mixed or negative, it may be appropriate to adopt the procedure of the European patent office where the applicant makes a number of alternative proposed amendments by way of making auxiliary requests and for different proposed amendments. These are considered by examiner and form the only basis of discussion and consideration. This may concentrate the considerations to a small number of points, may greatly facilitate the progress of the application, and may save unnecessary delays.

[032] 2.2.9(a) We strongly submit the deadline for paying the grant fees should no longer be related to the priority date. This is due to the significant problems that have been experienced to date in relation to the timeliness of issuance of written opinions, search reports and examination reports. Quite often the examination report does not issue until after the due date for paying the grant fees. This requires extensions of time to be evoked. Due to extension Rule 100 extensions and the operation of Rule 109 this can quite often cause third party rights to be evoked. It is unacceptable that when the delay is due to IPOS and/or IPOS's contracted examining authority, the applicant can suffer by the creation of third party rights.

[033] We believe that when local examination is requested, it is essential that the grant fee should be payable a prescribed period after the date of the communication of examination report to the applicant. Appropriate periods will be three to six months. This will prevent third party rights from being incurred. We also note that changes in the examination route are not acceptable in other jurisdictions but have been and are currently acceptable in Singapore, even if made just before the grant fee deadline. Even if beyond the grant fee deadline (as long as the grant fee has not been paid), changes in examination route are accepted now, but separate extensions fees are required for each form submitted. As it has been accepted practice to change tack or examination route (typically from local to foreign), we see nothing in the proposed amendments that prevents changing the choice of examination route. So the applicant should continue to have the option of changing the examination route from local to foreign up to payment of the grant fee. As such, if the grant fee due date is extended due to late issuance of the examination report, the deadlines for the foreign route should also be extended to the same date, especially if there may be a cap on the term of any extension available.

[034] Furthermore, to prevent potential procedural abuses by the contracted examining office it should be guaranteed that the applicant will receive a first written opinion. A second and subsequent opinion may issue if the applicant's response to the first written opinion is bona fide. If not, the examiner may issue an examination report or indicate that the applicant must request for hearing.

[035] We further submit that the default track should be the slow track. It is public record that there are considerable delays in patent offices around the world. For Singapore to have a relatively fast track compared to all of its major trading partners is illogical. It is also public knowledge that many attempts have been made to prevent unnecessary duplication in work in patent examination. The recent patent prosecution highway initiative with the Japanese patent office and the ASEAN cooperation are to the landed as they are minimizing unnecessary duplication of effort. With the fast track being the default, an applicant wishing to avoid unnecessary duplication by following what is commonly referred to as modified examination (i.e. either PF11B or PF11C) may be prevented from doing so due to the shortness of time allowed in Singapore. Furthermore, the very high cost of the block extension fee is a significant deterrent to applicants.

[036] Whatever procedure is adopted there must be simplification. At the time of the last major review (when the two-track system was introduced) many problems were created. Many applicants find the system far too confusing. Our members spend a considerable time explaining to applicants how to deal with the complexities of the two-track system, and the various examination options, normally by eliminating alternatives that may not be applicable to that applicant and simplifying their consideration to a small number of manageable options. As many of these applicants invest in Singapore because of Singapore's very good IP laws and enforcement, any reduction in their favorable view on Singapore's IP law may impact upon their investment in the country. The system is already very complex and should not be made more complex. It must be simplified. The transitional provisions will be of some significance. It may be that patentees will find four parallel systems operating:

1. patents granted under the pre-1996 system;
2. patents granted and applications pending under the 1995 – June 2004 system;
3. patents granted and applications pending under the July 2004 to now system;
4. applications being filed under the new system to be introduced.

To have four versions of the Singapore patent system running at the one time is excessive, and will add significant confusion.

Invitation 1

[037] If the default track is the slow track, it would save double entry of due dates. Applicant should be given the ability to expedite examination by filing a form, paying a fee and explaining why they need an expedited consideration. Therefore, those who want their applications to go through quickly can do so but must pay for this expedited service. Those who want their cases to go through in a manner which is consistent with international practice with regard to timeliness can wait. We submit it is essential for there to be an expedited examination system included in the Singapore Patents Act. Too many applicants have been disadvantaged when they experience delays in examination in the event of infringement.

[038] There have been four questions asked.

1. Our views about the proposed hearing process are generally favourable but we believe that our comments above should be taken into account and appropriate changes made. Applicants, particularly local applicants, have suffered in the past if the examination report was negative or mixed. It can impact on their ability to raise investor funding, or may result in lower license fees. As we have suggested, the additional time to grant should be overcome by having the grant fee deadline set by the date of transmission of the examination report to the applicant.

2. Informal dialogue with the examiner is practically quite difficult primarily due to time zone differences with Austria and Denmark. Also, as mentioned in the commencement of this submission we have found that many of those examiners impart their local "spin". For example, one examiner from Denmark refused to search and examine certain claims because there was more than one independent claim of any category. He did not consider the requirements for unity of invention under Singapore law but considered the EPO practice on independent claims. After considerable discussion and a threat being made of a formal, written complaint the examiner reluctantly agreed to search and examine the claims in question. However, at the time of preparation of these submissions, the amended search report and written opinion have not yet arrived. The biggest problem in dealing with these issues is a lack of guidelines to the examiner as well as to our members as to what are the appropriate standards, law and timeliness that is required.

3. We disagree that there should be no opportunity to amend the specification once the examination report has issued. However, we believe that any amendment that is filed after the examination report must be examined. If the amendment is a simple and mere combination of claims (to use American terminology: the independent claim is cancelled and a dependent claim is written in

independent form) the application should be allowed to proceed to a grant and to be as valid as possible. Applicants should not be forced to wait until after grant to amend to overcome prior art that was known several months before grant. Delay is one aspect of the discretion to allow a request to amend to proceed.

4. We believe the local/mixed routes will support a positive grant system but believe that changes need to be made as has been discussed above. Furthermore, the overall system to grant must be simplified.

[039] 2.3.2 It is a relatively common practice by Singapore applicants to first-file an international application under the Patent Cooperation Treaty. Many of our members believe that at present there is no possibility of relying on corresponding applications when the PCT application is the first filing as there is no claim to priority. Other members have a different belief. To consider one example, if the PCT application is the first filing and enters the national phase in USA early and subsequently in Singapore, the US application may proceed to grant relatively early if it is expedited by a "Petition to Make Special" (this may happen) and if there are still outstanding objections on the PCT application. Why then can't the Singapore applicant rely on the US grant? It also seems strange that under the Patent Prosecution Highway agreement with the US patent office, Singapore applicants cannot rely on the prosecution of the corresponding US case in such a situation yet a check of the US patent office web site reveals that US applicants can rely on the prosecution of the corresponding Singapore case in such a situation (see 1(b)(iii) on page 8 and 1(c)(iii) on page 9 of the US PTO document). A further difficulty arises in that the definitions of "corresponding application" and "corresponding international application" in Section 2 both refer to "a priority claim" with reference to the application in suit or an application which is also the basis for a priority claim under section 17 in the application in suit. Section 17 does not refer to a priority claim. Quite correctly it refers to a declaration specifying one or more earlier relevant applications. The Paris Convention in Article 4D(1) refers to a declaration. Even the PCT in Article 8 requires a "declaration.....claiming the priority..."; ".....any priority claim declared" and "....priority.....is claimed". The looseness in the language of Section 2 causes uncertainty.

[040] There is considerable unpredictability in corresponding applications proceeding to grant. We also note some inconsistency in the prescribed application's definition in that for Canada and Europe the application must be in English but such a requirement does not apply for Japan and Korea. Is there any reason why Canada and Europe require English but Japan and Korea do not? We believe there is no justification for the exclusion of patents granted in French or German for Canada and Europe. The German client of one of our members who wished to rely on a German language EP Patent but could not do so was particularly unhappy about this, which he saw as blatant discrimination.

[041] 2.3.6 Many of the applications in Singapore are PCT national phase applications. In many instances the PCT application is not prosecuted so the IPRP (Chapter I) will probably contain outstanding objections. It is therefore highly likely that it is not possible to proceed to grant. The work load on the contacted patent offices (Austria, Australia and Denmark) will significantly increase as a request for examination based on ISR will have to be made for all of those cases. Therefore, we strongly submit that it may be appropriate for a longer time to be allowed for the corresponding applications to proceed to grant. This will reduce the workload on the contracted patent offices so they may be able to comply with the required timeliness.

[042] 2.3.8 In many instances applications filed in Singapore are the national phase entry of the PCT application filed with the US patent office as receiving office and claim priority of the US application. It is not unusual for the US application to proceed to examination independently of the PCT application. Quite often we will receive instructions after national phase entry to amend the claims of the Singapore application to correspond to the claims either being prosecuted for the US application, that have been allowed for the US application, or are of the issued US patent. A significantly problem relates to the definition of what is considered related claims. There is difference of opinion amongst our members as to what the definition means. It may be appropriate to amend the definition to make it absolutely certain what is required. We propose that the definition be amended to read:

[043] "A claim is related to another claim if:

- (i) if two claims are identical; or
- (ii) each limitation in the other claim;
 - (a) is identical to a limitation in the first claim; or
 - (b) differs from the limitation in the first claim only in expression but not in scope; and

(iii) more than one claim may be related to a single claim.”

[044] The reason for this change in definition is that it is normal to talk about the scope of the claims whereas the expression deals with its content. Also, it needs to be made clear that the dependency of the claim should not impact on it being related. For example, if claim 2 is dependent on claim 1 and claim 3 is dependent on claim 2, but claim 3 is amended to depend on claim 1 is it now related as it no longer includes the limitations of claim 2?

[045] 2.3.9 The claims correspondence table is an unjust requirement. It will be unique to Singapore. If there are many claims, preparing the claims correspondence table will be onerous on the applicant. Why is it not enough to file a redlined copy of the claims, which would be required for the amendment?

[046] We also note that in the proposed changes in both 2.3.9 and 2.3.10 the claims correspondence table is referred to. As a related claim will include identical elements (see the definition) it is exceedingly onerous to require the applicant to prepare a claims correspondence table if the claims are identical. Applicant should be merely required to say that the claims are identical. Is there a difference when claims are amended from a single dependency format used in USA to a multiple dependency format used in many other countries? Also in 2.3.10 who will be doing the checking? The purpose of the claims correspondence table is not explained. In view of the onerous nature of its preparation, we believe it should not be used. It can be overcome by the present system. The PF14 (2004) includes a declaration by the person signing the form that the claims are related. That should be sufficient. If self assessment on its own isn't enough to give a strong patent and formal adjudication is needed, the adjudication should replace the declaration, not be in addition to it. If Singapore is to do away with self assessment, why is the declaration needed? Such declarations are not common in other jurisdictions. Why have one here?

[047] 2.3.11 The restriction of amendments to one voluntary amendment may be restrictive. If a voluntary amendment is filed, and the amendment is examined, and the examiner finds a difficulty of any nature with the amendment a second voluntary amendment may be required to overcome the difficulty. This can be overcome by requiring examination of the amendment and the issuance of a written opinion if there is any difficulty with the amendment. A response to the written opinion may be filed that may include further amendments as long as the amendments are directed at overcoming the objections raised by the examiner.

[048] It is very common practice by many of our members that if new claim features are added to an independent claim a request for local search and examination is recommended to be filed as this is the only way to be certain. Anything less leads to uncertainty, and a significant risk of invalidity.

[049] 2.3.15 The purpose of the claims allowability report is not given. There is no indication as to its purpose nor how it may affect the validity of the patent. An examiner can easily determine whether or not claims are related by considering both sets of claims. The claims allowability report would not be required by the examiner. The examiner would still have to check the claims to determine whether the claims allowability report was correct. If it was incorrect, he would issue a written opinion. It is best to eliminate the claims allowability report and allow examiner to raise appropriate objections. However, again, considerable guidelines will have to be given to examiner as what constitutes a related claim. Is the change in claim dependencies sufficient to make it not related or are we considering only the scope of that individual independent claim as against the claim upon which is dependent? Furthermore, in most instances a copy of the claims with tracked changes will tell the examiners the relationship of the amended claims to the claims before amendment. A compromise might be to allow the Registrar to request the table where a redlined unitary copy of the claims isn't given.

[050] 2.3.17, 2.3.18 We note here the reference to the same examination office. We repeat and reaffirm our comments made above in relation to this.

[051] 2.3.19 We repeat and reaffirm our comments made above in relation to the outcome of the hearing.

Invitation 2

[052] 1. If new claim features are added it is always recommended to request local search and examination as this option is the best. We believe that method 2 looks the best.

2. We repeat and reaffirm our comments made above in relation to the claims allowability report.

3. This will all depend on the cost and thus the fee. If the fee is reasonable and the number of claims is reasonable it may be possible. However, we repeat and reaffirm our comments made above in relation to claims allowability report mentioned above. We note that the fees for search and examination are very high for an application in Singapore compared to applications in other countries. We have addressed this issue in the past and continue to stress that the fee is punitive. We have been advised by the Registrar that this is due to the instructions to IPOS to recover cost at each and every stage. However, this does not explain a very high fee payable for the block extension of time, and extensions of time in general, nor renewal fees.

4. We believe that the prescribed information route requires a knowledge and understanding of the delays that are being incurred in the countries of corresponding applications. At present the delays in those countries are preventing this route from being effective in Singapore. A two stage process may be used such as was used before 2004 that the prescribed information is filed early and then the result of the examination must be filed within three months of the completion of the examination stage of the corresponding application. Naturally, there should be an ultimate deadline. If the corresponding application does not proceed to grant before that deadline the applicant in Singapore will have to file a divisional application or the application is considered abandoned.

Invitation 3

[053] 1. We believe method 2 is again the most attractive. We do not understand why there is only one opportunity to file voluntary amendments at 2.3.29. Essentially, there should be any number of opportunities to file voluntary amendments. They should be considered as a whole at the time reliance on the IPRP is filed and method 2 is invoked. There should be no limit to the number of amendments that can be made before this time as it is unnecessary for them to be considered before the notice to rely on the IPRP is filed.

2. In relation to the mere deletion of the objected claims we believe that there is some uncertainty in relation to related claims particularly when a dependent claim is amended such that its dependency is changed. For example, if claim 1 is an independent claim, claim 2 depends on claim 1 and claim 3 depends on claim 2 and claim 3 is amended to depend on claim 1 rather than claim 2 is it still a related claim? Our members are mixed in their opinions as claim 3 includes all limitation of claim 1 as well as claim 2 before the amendment and after the amendment includes the limitations of claim 1 and not the limitations of claim 2. Clarification is needed on such issues.

3. A claims allowability report should be a voluntary option for applicants.

4. See our comments above.

[054] 2.2.2 Post grant amendments

We agree that all post grant amendments should be examined. This is the norm in most countries. However, we do not see the need for a claims correspondence table. The examiner will not need it if the amendment must be accompanied by a copy of the claims with tracked changes. The examiner will immediately be able to determine if the claims are related. A claims correspondence table will therefore be redundant. To impose such a cost imposition upon the applicant due to a requirement unique to Singapore cannot be justified. The assessment for allowability must be by the examiner. Most such amendments filed at this stage are to overcome prior art which may be cited in corresponding applications proceeding more slowly than in Singapore. In that case it is more likely than not that the amendment will be to combine a dependent claim into an independent claim with consequential re-numbering. In that case there is no question of related claims being an issue.

Invitation 4

[055] We agree that post grant amendments should be examined. However, the criteria for allowing the post grant amendments should reflect those of the United Kingdom. Any delay by the patentee should be taken into account. We also note that under Section 84 (2) an amendment of an application for a patent is not allowed if it results in the application disclosing any matter exceeding that disclosed in the application as filed. The application as filed by definition includes the abstract. However, sub-section (3) requires that no amendment to the specification of a patent should be allowed if it results in the specification disclosing any additional matter. The use of specification in sub-section (3) excludes the abstract. We wonder: why there is a difference? We believe that both sub-sections should be the

same. They should refer to the specification. We note from Section 25 (3) that the abstract is listed separately to the specification and sub-section (7) the purpose of the abstract is stated as being to give technical information on the publication and it shall not form part of the state of the art. There should be consistency in the terminology of the Act.

Post grant search and examination – Invitation 5

[056] Our only question here is the extent to which the post grant search and examination system has been used. If it is not being used is there any point in keeping it? We agree with the proposed minor process change. We submit that a right of appeal should be included in the post-grant search and examination system as well as the pre-grant search and examination system.

3.5 Patent application process

[057] We wish to emphasise that an efficient and fair process requires that the search and/or examination authority should perform their work in a timely manner, and that timely manner must be consistently applied by and for all searching and/or examination authorities.

3.7 The proposed option 2

[058] The independent request for a search report is proposed to be discontinued. Filing statistics have shown that the demand for this service is low. The experience of our members is those who use this service are generally individual inventors from within Singapore. Although we have no difficulties with not continuing with the request for search (separate from the request for examination) we fear a small part of the Singapore community may be disadvantaged as a result.

[059] We also repeat and reaffirm our comments made above that we believe the slow track should be the default track. There should be an option (subject to payment of suitable fee and filing of form) for expedited consideration very much along the lines of the Petition to Make Special in USA or expedited examination in Australia. The proposed 18-month period will require the contracted patent offices to comply with the timeliness requirements. If they do not applicants may be disadvantaged due to delays by the search and examination authority. If the delays are excessive, as mentioned above, third party rights may accrue to the disadvantage of the applicant when the applicant has no control over the situation. We also note the time limits are early by world standards. This will place the Singapore patent system out of step and out of harmony with its major trading partners. Given the patent prosecution highway proposals that are now being implemented, in many instances this will make it very difficult for foreign applicants to use the progress of their home applications to facilitate processing in Singapore; but it may assist Singapore applicants to facilitate processing of their applications in foreign jurisdictions.

Invitation 6

[060] Process option 1 is unworkable as the deadlines are far too short.

[061] Process option 2 is a proposal that addresses some of the problems that exist at present. The removal of the two-track system is long overdue as it made the system far too complex. The Singapore patent system needs to be made simpler. However, by reducing the time limits it places the Singapore patent system out of step and out of harmony with its major trading partners. Experience shows that it is very difficult for corresponding applications to be available for use by 42 months from the priority date, whereas there are quite a few available at 60 months. Furthermore, the aim of completing search and examination within 18 months of the date of the first written opinion is only attainable if the search and examination authority responds promptly to the request from IPOS and the applicant's response. Unless they comply with the contracted time limits it will not work. As such strict guidelines must be given to the examining authority. If they do not meet these guidelines automatic extensions of time will be provided without the penalty as currently exists in Rule 109.

[062] Furthermore, it will only work if the applicant has an automatic right to a second written opinion if the examiner has objections outstanding in view of the applicant's response to the first written opinion and that response to the first written opinion was a genuine attempt to resolve the issues. The only ground upon which an examiner should not issue a second written opinion is if there are such objections outstanding and the applicant's response to the first written opinion was not bona fide. This should only be done in extreme circumstances where no genuine solutions are attempted.

[063] We believe that the contracted search and examination authority time limits do not allow for delays in the examiner's consideration due to illness, holidays, and other absences. We believe the examiner should have the same period to issue a written opinion (first or subsequent) as is allowed to the applicant so that the examiner will be given a period of five months from the date of the IPOS letter sending the response, the request for examination or the request for search and examination. This would mean that the second written opinion should issue no later than ten months from the issuance of the first written opinion. Again allowing for a further five months for response that still places the application within the eighteen-month time limit. If the examiner does not issue the first or second written opinion within the five month period, the grant fee is automatically extended by the time of the delay without the operation of Rule 100 or Rule 109 consequences. As such the applicant is not disadvantaged by the failure of the examiner to observe the necessary deadline. This addresses a specific option to the timeline although we prefer the proposal as mentioned and discussed about in relation to paragraph 2.2.9(a).

Invitation 7

[064] This seems satisfactory and the benefits to the applicants are clear without seriously disadvantaging a third party. However, the fee should set at a reasonable level. As mentioned above, the Registrar has previously advised that the guidance to IPOS is to cost recover at each stage. We cannot see how a fee of S\$200 per month complies with such a guideline. We suggest a fee of S\$200 for the first three months and, perhaps, a higher fee for the second three months. Therefore the present fee is retained but it is applied over a three-month period and not a single month.

Invitation 8

[065] We agree with the limitation on the extension of time for (1) and (2) but do not agree in relation to (3). The reason for this is that for (1) and (2) there are other options available to the applicant. For (3) there is no such option available and there may well be circumstances in which an extension of time of more than six months is desired for completely legitimate reasons such as, for example, illness. We are aware of situations of this nature. Consequently, for (3) we believe the maximum period of the extension should not be limited. However, if the option of filing a divisional application is available within an unlimited extension of time period that would be an acceptable alternative.

Invitation 9

[066] This seems reasonable and brings the law into alliance with many other countries, particularly Singapore's major trading partners.

Invitation 10

[067] We believe the twenty-month period seems to be unusual. It is more likely than not, as experience as borne out, that the need for restoration will be noticed on the anniversary of renewal. We strongly submit that the period should be reduced from thirty months to twenty-four months rather than twenty months to align with anniversaries of renewal payments being required. The twenty-four month period is also in common with many of Singapore's major trading partners.

Invitation 11

[068] We believe that the pre-expiry renewal notice should not be sent. All of our members have extensive docketing systems and reminders are sent several times to the patentee well before the renewal date. The reminder from IPOS is to cover those situations where something goes wrong. In this regard we refer to our comments in relation to Invitation 10 above. A reminder from IPOS may cause confusion with patentees, particularly as many patentees in Singapore use renewal services. We note that the renewal agent is quite often different to the agent of record for substantive matters. This may cause problems and confusion. A letter from IPOS after the renewal date will serve to remind renewal agents and particularly renewal services there may have been an error. This is when it should be sent.

Invitation 12

[069] We most strongly suggest following the European approach. As can be seen from a consideration of all major Singapore patent cases since the Patent Act came into force in 1995 Singapore courts generally always refer to UK patent cases in the absence of a suitable Singapore case. We are not aware of a single patent case where a decision of the courts in the USA has been applied by the Singapore courts. The general public therefore will have a firm belief that patent matters are decided with primary reference to case law from Singapore and, in the absence of such case

references, to refer to case law in United Kingdom. As the Patents Act in Singapore is heavily based on the UK Patents Act this is logical. This particularly applies for patentability requirements. We do take note that the statutory exclusions in relation to such things as business methods and computer programs have been deleted in Singapore but remain in the United Kingdom. For your information we attach a copy of a decision of the English Court of Appeal in relation to second medical use claims which sets out how the English courts see such claims (*Actavis UK Limited v Merck & Co Inc* [2008] EWCA Civ 44). We most strongly submit that the courts in Singapore will follow the same approach and therefore we believe that the European approach (which is followed in the UK) should be followed in Singapore. Following approach (d) and not allowing patent protection for second and subsequent new medical uses would put Singapore in stark contradiction with the patent practice in all major economies and could jeopardize Singapore's position as a medical hub in South East Asia.

[070] If the US approach or Australian approach is followed, it must be realized that in both countries the exclusions as provided by Section 16(2) of the Patents Act in Singapore are not followed and such things as diagnostic and surgical techniques are patentable. Evidence of patents granted for surgical treatment can be provided if required. To follow the US or Australian approach in these instances may lead to Section 16 (2) exclusions being significantly narrowed in Singapore. We ask if this was Parliament's intention. The effect of patenting of methods of treatment and diagnostic methods in Singapore may have an adverse effect upon the healthcare industry in Singapore, particularly when considered on a regional basis.

[071] We strongly submit that attempting to integrate UK and US approaches, as in the IPOS proposal, causes a combination which does not exist anywhere, and must lead to uncertainty. For example, if the US statute is copied, should a Singapore court interpret its terms according to US law or SG/UK law?

[072] Also, the US position of granting patents on methods of treatment and diagnosis generally avoids the need for many second medical use claims. And their position is supported by very strong contributory infringement provisions so that those who supply, for example, a medication to be used in the patented treatment can be sued, and not those who are performing the treatment; and medical practitioners are exempted from any such infringement.

Factors not covered by the proposals

[073] The first relates to the lapsing notice that issues by IPOS when a renewal fee is not paid on the anniversary of renewal. We note from design renewals that this lapse letter is provided. Should it not be confirmed to the applicant at all stages of the application procedure that the application has lapsed? This could be sent to the agent of record and will serve to detect errors before they become significant or the time involved becomes large. There is no logic in having one instance of lapse being the subject of a letter from IPOS to the agent of record if all of the others are not. IPOS does (sometimes) send out Notices of Abandonment for cases filed on or after 1 July 2004, but normally after some time has elapsed beyond the grant fee deadline. These are spotty at best. It would be useful if such a notice was sent out just after the automatic extension period expires.

[074] Contributory infringement is now common in the patent law of Singapore's major trading partners. Singapore is out of line with other countries in not having this, and it means that relying on claims drafted for use in other countries is dangerous. One of our members was involved in a Singapore litigation based on an SG patent granted based on an EP patent. It failed because the European patentee had drafted all the EP claims on the assumption that contributory infringement existed. Certain inventions are very hard to protect with claims which are directly infringed (e.g. for data carriers carrying data which a computer will interpret in a certain way. If the computer is not an element of the claim, then you're just claiming a pattern of 1s and 0s which might mean anything).

[075] Make the deadline for responding to written opinions extendable. Again Singapore is very unusual here. The problem is serious because of the way in which IPOS tends to send out office actions in batches, so that you get 10 inextensible deadlines on the same day! Plus many clients are in time zones that are behind Singapore. If they send instructions on the last day, it is already the next day in Singapore. The ability to obtain limited extensions of time will be essential if the requirement for a clear examination report is introduced as a failure to respond in time may see the applicant's rights being forfeited.

[076] What is the relevant standard to be adopted for Singapore applications for "medical" and "diagnosis" within the statutory exclusion? Will or should the UK/EPO standard be followed? By virtue of the legislations being quite similar, the Singapore patents Act being based on the UK patents Act, and the UK Patents Act being in harmony with the EPC, we strongly submit that the standards applied to Singapore applications be those applied in the UK/EPO.

[077] For methods of diagnosis the method must contain all steps in reaching a medical diagnosis. Methods providing only interim results are not diagnostic methods. Prior to diagnosis, there is or may be a need to carry out an intellectual exercise related to examination, data gathering and comparison. If one of the preceding steps was lacking, there was no diagnostic method but at best a method of data acquisition or data processing that could be used in a diagnostic method.

[078] The leading decision from the EPO is G1/04. This clarified the definition of "diagnostic methods practiced on the human or animal body" so that a method must satisfy the following tests in order to qualify as a diagnostic method:

- (a) the examination phase involving the collection of data;
- (b) the comparison of these data with standard values;
- (c) the finding of a significant deviation; and
- (d) the attribution of the deviation to a particular clinical picture,

wherein the steps (a) to (c) must satisfy the criterion "practiced on the human or animal body".

The Board Of Appeal said that criterion practiced on the human or animal body is to be considered only in respect of method steps which are of a technical nature.

In another decision of the Technical Board of Appeal of the EPO (T1197/02) steps (b) and (c) were clarified as they should not be considered technical as they are principally of non-technical nature and most likely not practiced on the human or animal body. See also EPO decisions T125/02, T41/04 and T1197/02.

[079] We strongly submit these are the tests that should be followed in Singapore.

[080] To determine whether a method is a method of treatment by surgery or therapy the EPO tests are to determine the purpose of the claimed subject matter and the inevitable effect of the feature under consideration. If one step in a method defines a physical activity or action which constitutes a method of treatment, the whole claim is not allowable.

[081] To determine what is surgery one needs to look at whether the method is suitable for or potentially suitable for maintaining or restoring the health, the physical integrity, and the physical well-being of a human being or an animal, and for preventing disease.

[082] To determine what is therapy the relevant test of the EPO is that it includes prophylactic and curative methods of treating disease since both are directed to the maintenance or restoration of health.

[083] A number of examples of EPO decisions are:

1. Contraceptive method involving a concurrent therapeutic step
Administration of a main composition which brought about desired contraceptive effect and a concurrent administration of other products to counter side effects from the use of the main composition. (T820/92)
2. Method involved the use of a pacemaker to control stimulation energy. Method of operating a pacer included steps which implied that an algorithm was implemented in the pacer and used to control the pacing rate. (T89/96)
3. A multi-step method for measuring the blood flow of a laboratory animal which included a surgical step in which the lab animal was consciously killed at the end of the method. (T182/90)
4. A method of general immunostimulation for animals to increase meat production. (T780/89)
5. A method of eliminating plaque. (T290/86)
6. Method which used a medication to increase milk production in cows. (T774/89)
7. Cosmetic treatment process based on the use of a complex of an acid for the protection of the human epidermis against ultraviolet radiation. (T1077/93)

8. A cosmetic method for the simultaneous removal of a plurality of hairs from a skin region, each hair being in a follicle extending into the skin from a skin surface, the method comprising:
 - a. position an element over the skin surface in the said skin region through which optical radiation may be passed; and
 - b. applying optical radiation of a selected wavelength and of a selected fluence through the element to the said skin region for from 5 ms to 200 ms. (T383/03)

[084] To determine the patentability of computer programs and business methods in Singapore, and the relevant standards, is more difficult as Singapore doesn't have the statutory exclusions as exist in the UK and under the EPC. We submit that the Australian standards and tests should be followed and the UK/EPO position on computer programs and business methods should not be followed.

[085] The Australian legislation is similar to that of Singapore and both countries share a common heritage. Also, in its chapter on the search and examination of Singapore applications, the Patent Examiners manual of IP Australia includes a section on the "Special Issues Relating to Medical and Biotechnology Cases". There is no such section for computer programs and business methods. So Singapore applications are already being searched and/or examined under Australian law.

[086] The Introduction section of that chapter advises "for reporting in accordance with certain PCT rules and, in general, the [PCT International Search and Preliminary Examination Guidelines](#), " And that the "standard then for examination, for instance, must exceed that necessary for a "preliminary and non-binding" opinion which applies, for example, to PCT examination."

[087] Section 2.9.2.7 of the Patent Examiners manual of IP Australia provides a useful and authoritative test that should be applied in Singapore for the patentability of computer programs:

"The Full Federal Court decision *CCOM v Jiejing*, 28 IPR 481, (1994) AIPC 91-079, is the most recent authority on the patentability of computer software related inventions in Australia. *CCOM v Jiejing* emphasises that the basic law on patentability of any invention in Australia is as set out in the NRDC case (above). The NRDC case and *International Business Machines Corporation v Commissioner*, (1991) 22 IPR 417, both state that

"a process, to fall within the limits of patentability....., must be one that offers some advantage which is material, in the sense that the process belongs to a useful art as distinct from a fine art..... - that its value is in the field of economic endeavour."

The particular statement of this test, formulated in *CCOM v Jiejing*, for determining the patentability of computer software related inventions is whether there is:

"a mode or manner of achieving an end result which is an artificially created state of affairs of utility in the field of economic endeavour."

It is clear that each of the following will almost always be such a "mode or manner" as referred to in *CCOM v Jiejing*:

source code for patentable computer software,
 executable code for patentable computer software, which is in a machine readable form, and
 a computer, when programmed to achieve any result which has utility in the field of economic endeavour.

In *Data Access Corp v Powerflex*, (1999) AIPC 91-514, the High Court gave apparent endorsement to the CCOM decision, saying:

"In form, the definition of a computer program seems to have more in common with the subject matter of a patent than a copyright."

A mathematical algorithm is a procedure for solving a given mathematical problem. In the field of computer software related inventions, there will be cases in which it is not clear cut whether a mathematical algorithm is either or both of:

"an artificially created state of affairs", and
 "of utility in the field of economic endeavour"

A mathematical algorithm *per se* is neither "an artificially created state of affairs" nor is it something having "utility in the field of economic endeavour". It will not have "utility in the field of economic endeavour" until it has been implemented.

Although a mathematical algorithm *per se* is not a manner of manufacture, the presence of such an algorithm as one of the steps in an otherwise patentable method does not exclude the claim from patentability. The test for manner of manufacture has to be applied to the claim as a whole. See, for example, *Diamond, Commissioner of Patents and Trademarks v Diehr and Lutton*, (1981) 209 USPQ 1 at 9 where it was said:

"It is inappropriate to dissect the claims into old and new elements and then to ignore the presence of the old elements in the analysis."

See also in *re Walter*, (1980) 205 USPQ 397 at 406, *CCOM v Jiejing*, 28 IPR 481 and the comments of the EPO Technical Board of Appeal in *Vicom Systems Inc's Application* (1987) 2 EPOR 74.

In *Grant v Commissioner of Patents* [2006] FCAFC 120 the Full Court stated that:

"It has long been accepted that ... a mathematical algorithm ... without effect [is] not patentable. ... It is necessary that there be some "useful product", some physical phenomenon or effect resulting from the working of a method for it to be properly the subject of letters patent.

In the *Grant* case, it was held that a product or result of a method must produce "a concrete, tangible, physical, or observable effect. A mathematical algorithm in itself does not produce a concrete, tangible, physical or observable effect.

[088] For business methods, the relevant section in the patent Examiners manual of IP Australia is 2.9.2.10 where it is clearly and emphatically stated that:

Methods of doing business are not excluded from patentability *per se* but are subject to the same considerations as for other methods or processes under the principles of NRDC. In *Grant v Commissioner of Patents* [2006] FCAFC 120 the full Court stated that:

"We do not consider that the question here is whether a business system, in the sense of a system for use in a business, is or is not patentable. Patent protection is afforded to an invention that complies with the requirements of the Act, including manner of manufacture. The fact that a method may be called a business method does not prevent it being properly the subject of letters patent....

In their judgement, they referred to *Welcome Real-Time SA v Catuity Inc* [2001] FCA 445 at [129]; 51 IPR 327 at 354, where Heerey J. stated that the US Court of Appeals decision in *State Street Bank & Trust Co v Signature Financial Group*, 149 F 3d 1368 (1998) was persuasive. That court criticised the US judiciary's creation of the business method exclusion to statutory subject matter and indicated that business methods should be subject to the same legal requirements for patentability as applied to any other process or method.

The *Grant* case related to a "method of asset protection consisting of actions of financial and legal consequence and this was found not to relate to an artificially created state of affairs, in the sense of a concrete, tangible, physical, or observable effect.

Their Honours concluded that:

"It is necessary that there be some "useful product", some physical phenomenon or effect resulting from the working of a method for it to be properly the subject of letters patent.

The concept of a "physical phenomenon or effect was not exhaustively defined in the decision. However, a number of examples from previous cases were discussed where such a physical effect was considered to exist:

"using certain chemicals to eradicate weeds from certain kinds of crops on a tract of land *National Research Development Corporation v Commissioner of Patents* (1959) 102 CLR 252

"the operation of steps (that carry out an algorithm of the method) by computers to achieve an end in the production of an improved curve image. *International Business Machines Corporation v Commissioner of Patents* (1991) 33 FCR 218

"the retrieval [by a computer] of graphical representations of desired characters for the assembly of text. *CCOM Pty Ltd v Jiejing Pty Ltd* (1994) 51 FCR 260

"the transformation of data by a machine through a series of mathematical calculations to provide a share price fixed for recording and reporting purposes. *State Street Bank & Trust Co v Signature Financial Group Inc* 149 F 3d 1368 (1998)

"the writing of new information to [a] Behaviour file and the printing of [a] coupon. *Welcome Real-Time SA v Catuity Inc* [2001] FCA 445

The court characterised these physical effects as “an artificial effect [that] was physically created on the land, “a component that was physically affected or a change in state or information in a part of a machine.

From these examples it would appear that “the working of the method requires “the application or operation of the method in a physical [form] and this “application or operation requires more than some physical form being involved merely incidentally or indirectly. It would seem that the physical form in which the method is applied or operated must be directly involved or used in bringing about the “useful product.

For example, in *International Business Machines Corporation v Commissioner of Patents and State Street Bank & Trust Co v Signature Financial Group* the physical form was a computer. The computer was directly involved in the operation of the method by “the operation of steps [of the method] by [the computer] to achieve an end or “through a series of mathematical calculations [by the computer] to provide a share price. The computer is being used in the calculation or determining involved in the various steps of the method.

Conversely, in a business method that involved the creation of documents with specific content where the physical form was a computer and the only “physical phenomenon or effect was the use of the computer to record the documents, it would seem such a direct involvement of the physical form would not be present since the content of the documents was calculated or determined by purely intellectual means rather than by the computer. In this situation, the computer has only an indirect involvement in the operation of the method (which would be no different to recording the documents with pen and paper).

Business methods that claim a technical solution or technical advantage, for example, computerised accounting, monitoring, reporting or analysis systems generally satisfy the criteria of a manner of manufacture, as do business methods involving electronic commerce systems. The artificially created state of affairs resides in the technological implementation. This technological implementation satisfies the ‘physical effect’ requirement provided that the implementation is directly involved in the operation of the method, which is generally the case in such methods.

However, it was made clear in *Grant v Commissioner of Patents* that an artificially created state of affairs did not necessarily require the application of science or technology. It was considered that an emphasis in the decision in *National Research Development Corporation v. Commissioner of Patents* was the “unpredictability of the advances of human ingenuity and to create such a requirement would “risk the very kind of rigidity which the High Court [in that case] warned against.

Another ground raised in *Welcome Real-Time SA v Catuity Inc* was that of general inconvenience, because others were restrained from using commonplace ways of doing business that had been so for many years in both the real and on line worlds.

This was rejected:

"But if an invention otherwise satisfies the requirement of s 18 it can hardly be a complaint that others in the relevant field will be restricted in their trade because they cannot lawfully infringe the patent. The whole purpose of patent law is the granting of monopoly."

It is important not to confuse the issues of novelty and inventive step with the issue of manner of manufacture. This is especially the case when the examiner's initial impression is that the method should not be patentable; care must be taken that a subjective assessment of the novelty/obviousness of the invention is not mistaken or substituted for a consideration of traditional principles that have developed for manner of manufacture.

For a business method, the way of putting it into effect may be very simple or self-evident once the idea or concept behind the invention has been identified. This may give rise to a novelty or inventive step objection if the claim as a whole is not novel or is obvious, but is not on its own a relevant consideration when deciding manner of manufacture.

[089] We strongly submit that these should be the tests applied in Singapore.

[090] A big uncertain area is the patentability of inventions involving human embryonic stem cells under Singapore law. This research is perfectly legal, and even promoted, in Singapore. Examiners from both Austria and Denmark, but particularly Danish examiners, apply the European standards, in particular Rule 28 EPC, and consider it to be not patentable subject matter. Without guidelines for examination from IPOS, our members often experience difficulty convincing examiners of the inherent

patentability under Singapore law.

[091] We submit that it is up to Parliament and/or the Courts in Singapore to define what is and what is not patentable, and the appropriate tests. Due to the very low rate of patent matters before the courts in Singapore, we strongly submit that Parliament should take the lead and define what is patentable, not only what is not patentable. As many of the applicants are from Singapore, it is Singapore that is suffering most from a lack of a clear statement of patentability, and the relevant tests to be applied.

[092] During the recent, excellent APEC Trading Ideas seminar many of these issues were discussed with, in particular, officers from IP Australia. They also have exactly the same questions. They were also interested in discussing them with our members. Perhaps if we can all discuss the questions at a meeting we may arrive at some desperately-needed answers. This is why they are being raised. Most of the issues have not been raised in the proposed changes to the Singapore patent system, so we cannot see any legislative developments addressing them in the near future. We are addressing them in our submissions on the proposed changes to try to trigger discussion and, hopefully, some solutions.

We look forward to further discussion with you in relation to this matter. If you have any questions or queries in relation to this submission, please do not hesitate to contact us.

Yours faithfully

A handwritten signature in black ink, appearing to read 'K. Callinan', followed by a period.

Keith Callinan
President

KC/jt