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Q244

Inventorship of multinational inventions

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I. Current law and practice

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

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?

Introductory remarks

There is no statutory definition of inventorship under Danish law.

According to the Danish Patents Act, Section 1, subsection 1, *any person who has made an invention which is susceptible of industrial application, or his successor in title, shall, in accordance with this Act, have the right on application to be granted a patent for the invention and thereby obtain an exclusive right to exploit the invention commercially. Inventions may be patented within all areas of technology.*

However, as indicated above, this does not imply a definition of "inventorship", but merely sets forth the rights a person has, if that person *is* an inventor.

The European Patent Convention, which Denmark has adhered to, does not provide a definition of

"inventorship" either.

There is very little Danish case law (or legal theory) dealing with the issue of "inventorship", and the little there is provides scarce guidance of a general nature to the issue. Danish courts generally tend to go for pragmatic solutions based on the specific facts of the case rather than developing legal criteria of general application. However, it would appear that Danish courts have considered it - in relation to the issue of joint inventorship - sufficient to enjoy inventor's rights (i.e. for someone to be considered a co-inventor) that a person is *the originator of the idea* or *the originator of the idea on the basis of which the invention is developed*, cf. the valve judgment (U.2004.1018H) below.

In the Pfaff judgment (U.1988.991H) the Danish Supreme Court, considered the consequences of a drawing of an idea on the back side of the Danish director's flight ticket during a flight trip. The drawing was shown to a subsupplier who developed the idea and started production of the product. The subsupplier filed a patent application in his own name. The Supreme Court found that the director came up with the idea and gave the subsupplier the assignment of developing the idea into a tool. As no agreement had been made between them regarding the right to a possible patent, the Supreme Court ruled that they had a joint right to the invention.

In another Supreme Court judgment (U.2004.1018H), A was employed as a sales consultant in company B, producing valves. A had an idea for a new valve. A presented the idea to B, which launched a development project based on the idea, which led to B applying for Danish, international and US patents. In the patent application A was listed as an inventor, along with two employees from B's development department. In connection with the patent applications, A transferred the right to the invention to B but made a claim for compensation. The Supreme Court agreed with A's argument that he should be regarded as the originator/author of the idea on the basis of which the valve was developed (according to A's job description and his working conditions, his contribution to the invention was considered to be beyond what he could be reasonably assumed to have performed in a position as a sales consultant).

In yet another Supreme Court case (U.2004.1802H), A had invented a system for loading and shipping of decorative greenery and Christmas trees onto pallets during his employment with G. A filed a patent application in his own name. In the meantime, G began producing and selling the system, as G and A agreed to share profits equally. A was dismissed a few years later and G became aware of the existence of the patent. G requested the patent transferred to him. A started an in-house production and sale of pallets. The Supreme Court found that A had made the invention through his employment, and the utilization fell within G's work field. G was therefore entitled to have the patent transferred to him. The Supreme Court also found that G had a claim against A, and that it was at least the same size as his share of the profits (i.e. half of the profit)

In addition, most Danish patent practitioners and scholars would most likely agree, and this probably also follows implicitly from the limited case law (cf. the courts use of the word "originator") that a person, who only carries out unoriginal, routine work involving no independent creative efforts, is not a (co-)inventor, as inventorship presumably requires an independent, intellectual contribution to/directed at the invention as such.

There are no geographical requirements associated with acquiring inventor's rights under Danish law. Accordingly, it does not matter that the decisive inventive efforts, cf. above, are made outside Denmark in relation to the originator being considered an inventor under Danish law.

Answer to a)

There is no authority dealing specifically with this aspect of inventorship.

The Danish group believes that, assuming B does not make any independent, intellectual contributions of his own to/directed at the invention, but only passively follows instructions from A, B would not be considered an inventor. If A, on the other hand, by his instructions/directions or

otherwise makes independent intellectual contributions to/directed at the invention which would make him an/the "originator of the (inventive) idea", then, presumably, A would be considered an inventor or co-inventor under Danish law. In this regard, it would most likely not matter that A is located outside Denmark when it is presumed in the question that Danish law applies (i.e. we assume that the choice of law, notwithstanding private international law rules, is Danish law).

Conversely, if B's efforts do amount to independent, intellectual contributions to the invention, then B would be considered a co-inventor of the invention. Again, the geographical issue of A's and/or B's location does not matter for deciding the issue of inventorship under Danish law.

If both A and B contribute with independent, intellectual contributions, they would be considered co-inventors. Again, the geographical issue of A's and/or B's location does not matter for deciding the issue of inventorship under Danish law.

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?

no

Please comment:

The Danish Patents Act or case law does not determine this. However, as the claims define the scope of the invention, the Danish group finds that inventorship would in principle be determined on a claim-by-claim basis, but it cannot be excluded that other parts of the patent/patent application would have significance as well, if e.g. these parts contain independent, intellectual contributions directed at the invention and somehow contribute to the realization of the invention.

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

no

Please comment:

No, inventorship does not depend on citizenship, provided that Danish law applies. However, citizenship could affect the choice of law.

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

no

Please comment:

No, inventorship does not depend on where the invention has been made or residency of the inventors, provided that Danish law applies. However, residency could affect the choice of law.

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

yes

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

Yes, both a voluntary correction before the Danish Patent and Trademark Office (hereafter referred to as "DKPTO") and a "hostile" request for acknowledgment of co-inventorship or rightful inventorship can be filed. There are no special requirements or time limits for a voluntary correction, except that it

should be made during pendency of the application.

One or more named inventors must always be stated in the application form.

An inventor, who is stated in the application form, can only be deleted subject to his consent. Joinder of one or more co-inventors does not require consent from the originally named inventor(s) if filed by the applicant, his (successor-in-title) or his attorney (DKPTO guidelines).

This procedure is in accordance with Art.81 EPC, as implemented in Rules 57(f) and 21(1) EPC.

Requests for acknowledgement of co-inventorship or transfer of the application to a person claiming to be the rightful inventor are dealt with under question 5.

- 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?

If any person claims before the Danish Patent Office that he, and not the applicant, is entitled to the invention, the DKPTO may, if it finds the question doubtful, invite him to bring it before the courts within a time limit to be specified. If the invitation is not complied with, the DKPTO may disregard the claim when deciding on the patent application (Danish Patents Act, section 17). If legal proceedings are commenced concerning the right to the invention, the proceedings at the DKPTO are suspended until a final decision has been given in the legal proceedings. If the result of the legal proceedings is that he, and not the applicant, is entitled to the invention, the DKPTO shall transfer the application to him if he so requests (Danish Patents Act, section 18).

A patent may be revoked by a court decision according to the Danish Patents Act, section 52, if the patent has been granted notwithstanding that the requirements in section 1 are not complied with, i.e. either the inventor or his successor in title (the applicant) is not the true inventor/applicant.

A patent, however, may not be revoked in its entirety on the ground that the patent holder was only partially entitled to the patent, cf. section 52 (2) of the Patents Act.

Proceedings that the patent has been granted to another person than the person solely entitled thereto may, according to Danish Patents Act, section 52 (4), only be instituted by the person claiming to be entitled to the patent. Such proceedings shall be instituted within 1 year after the entitled person has obtained knowledge of the grant of the patent. If the proprietor of the patent acted in good faith when the patent was granted or when he acquired the patent, the proceedings may not be instituted later than 3 years after the grant of the patent.

Thus proceedings regarding entitlement may only be instituted by the person claiming to be entitled to the patent in question. The question of intentional or unintentional error influences the time frame within which entitlement proceedings may be commenced, see above.

- 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?

yes

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.

yes

Please comment.:

According to the Danish Patents Act, Section 70 and the Consolidate Secret Patents Act, an application for a patent in the technical area of war materials and the manufacture of war materials must be filed first in Denmark by applicants residing in Denmark, i.e. if the invention is owned by a person residing in Denmark or an enterprise residing in Denmark or by a Danish institution (Section 2a(1) of the Danish Secret Patents Act).

The meaning of "war materials" (Section 1(2) of the Consolidate Secret Patents Act) is defined by Danish Royal decree No. 21 of 30 January 1960 to be articles in the following types of material, which is exclusively or substantially intended for use in warfare, including parts and accessories for such articles. The list of war materials include 8 points, i.a. 1) weapons and ammunition; 2) chemical weapons; 3) equipment for protection against and to combat the effects of such weapons and ammunitions in 1 and 2; 4) Parachute equipment, stretcher equipment, field materials such as bridge materials, road building materials, airfield materials; 5) material for use in command of artillery and navigation, including sights and radar material; 6) equipment for protection against observation, including camouflage equipment or equipment intended to mislead or impede warfare; 7) Equipment designed to impede or prevent movement, including obstruction materials; 8) Materials, tools and machines, which by their nature exclusively or substantially are intended for the manufacture of the materials mentioned in 1 to 7.

We note that with respect to known filing restrictions for reasons of national security the International Bureau of WIPO has compiled the following list for the PCT contracting states: http://www.wipo.int/pct/en/texts/nat_sec.html

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.

no

Please comment.:

No, the Consolidated Secret Patents Act does not appear to provide explicitly for such mechanism. Rather, it is up to the owner (residing in Denmark or Danish institution) of the invention to ensure that inventions relating to war materials defined under section 1 of the Consolidated Secret Patents Act are filed first with the Danish Patent Office in order not to be in violation of section 2a(1) of the Consolidated Secret Patents Act (see LFF1977-1978.1.120, "Til § 1, nr. 1."), and thereby avoid the risk of punishment by fines or by imprisonment of not more than 1 year unless severer punishment is provided for (section 11(1) of the Consolidated Secret Patents Act).

The assessment as to whether or not it is required for the sake of the defence of Denmark to grant an invention as a secret patent is only assessed upon filing a patent application first in Denmark (section 2 of the Consolidated Secret Patents Act), and only after filing such a patent application is it possible to request authorization from the Danish Ministry of Defence to e.g. file the patent application in a foreign state (section 3(1) of the Consolidated Secret Patents Act).

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?

no

Please comment.:

See above.

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?

Danish law does not take into account the citizenship of the inventors or the residency of the inventors. In matters relating to secret patents, the law applies based on the residency of the owner.

Accordingly, the residency of the patent owner affects this answer, as the Consolidated Secret Patents Law applies to the residency of the applicant as well as to Danish institution applicants regardless of its residing country (section 2a(1) of the Danish Secret Patents Act).

Joint owners are not explicitly covered by the Consolidated Secret Patents Act, so the following assumes that a joint owner is an owner in the sense of section 2a(1). Accordingly, a Danish institution or a company residing in Denmark, owning the rights to an invention for war material jointly with a foreign company residing outside of Denmark must according to section 2a(1) of the Danish Consolidated Secret Patents Act first file a patent application in Denmark. This may be in collision with foreign law which has corresponding provisions or uses an inventor-based filing right definition.

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?

yes

Please comment.:

In relation to Danish law it would violate the law as given in the Consolidated Secret Patents Act only to the extent that: if the owner of the application has his place of residency in Denmark and; if the contents of the application would be encompassed by the Secret Patents Act; then a request by any inventor irrespective of nationality for a foreign filing license filed in another country before the application being filed in Denmark would be in violation of the Secret Patents Act.

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

Failure to comply with the Secret Patents Act entails the risk of punishment by fines or by imprisonment of not more than 1 year unless severer punishment is provided for (section 11(1) of the Act). Liability and sanctions would be assessed by the courts in a trial following regular judicial procedures.

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?

yes

If yes please answer the following questions.:

a) Does this law depend on the area of technology that is disclosed and claimed in the patent application?

The law applies to the technical area of war materials and the manufacture of war materials as defined in the Consolidated Secret Patents Act and the Danish Royal decree No. 21 of 30 January 1960 (see the discussion above in relation to question 6).

b) Describe this aspect of your law as well as the procedure, timing, and cost of compliance with it.

For war materials the rules would incur somewhat higher costs, as further steps and secrecy obligations apply.

c) Describe the possible consequences of failing to comply with this law. Does it matter whether the error was intentional or inadvertent?

Failure to comply with the Secret Patents Act entails the risk of punishment by fines or by imprisonment of not more than 1 year unless severer punishment is provided for (section 11(1) of the Consolidated Secret Patents Act). Liability and sanctions would be assessed by the courts in a trial following regular judicial procedures.

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?

Inventorship is not defined.

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?

In Denmark the rules requiring national first filing only apply to inventions of "war materials". The Danish group agrees that national first filing rules should only apply in relation to war materials.

The Danish group further supports the self-assessment principle used in Denmark.

The Danish rules (relating to war materials) do not address a situation of multinational inventions where owners/inventors with residency/nationality in different countries including Denmark have a common right to the invention. The Danish group recommends that such rules are introduced at least on a regional basis.

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?

See above.

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.

No.

III. Proposals for harmonisation

12)	Is harmonisation in this area desirable?
	yes
	Please comment.:
	Yes, if made the right way.

If yes, please respond to the following questions without regard to your national or regional laws. Even if no, please address the following questions to the extent you consider your national or regional laws could be improved.

13)	Please provide a definition of inventorship that you believe would be an appropriate international standard.
	The Danish group suggests that inventorship requires an independent, intellectual contribution to/directed at the invention.

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).
	The Danish group is of the opinion that correction of inventorship should be as simple as possible. Thus, it should not be a requirement to show that whichever error occurred "unintentionally" or "without deceptive intent". The Danish standard described under Question 4, according to which the deletion of an originally named inventor requires his consent, while joinder of one or more co-inventors does not require consent from the originally named inventor(s), if filed by the applicant, his successor in title or his attorney, might serve as a suitable international standard.

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.
	The Danish group does not believe that it is in the interest of multinational companies with multinational inventions to have to file first in certain countries.
	The Danish group finds that national first filing rules should only apply to inventions of war materials.

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.
	The Danish group is of the opinion that review related to war materials is appropriate, but we would suggest a process similar to the Danish model of "self-assessment" by the applicant. This would significantly reduce the burden of secrecy reviews across the globe and enhance the possibilities of multinational scientific and technological cooperation.

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

The Danish group is of the opinion that there should not be any requirement of foreign filing licenses except for inventions of war materials. The international standard for obtaining a foreign filing license should be a "self-assessment" model (see above reply to question 9).

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.

The answer to the above question depends in large on whether the application has been published or not.

If the application remains unpublished at the time the filing error is discovered, a simple retroactive filing check by the relevant national patent office should suffice as remedy.

If the application is published, national laws governing liability and sanctions become effective.

Where a self-assessment system like the Danish filing system is in place, an unintentional error in the self-assessment should be curable.

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 Danish group has no additional suggestions.

Summary

Inventorship is a concept not defined under Danish law and there is limited case law on this subject. The Danish group suggests that an independent, intellectual contribution to/directed at the invention is required for inventorship.

There is only a first filing requirement for applicants residing in Denmark in relation to secret patents, i.e. patents filed in the area of war materials and the manufacture of war materials, cf. Section 70 of the Danish Patents Act. The meaning of 'war materials' and the specific rules relating thereto are set out in the Consolidated Secret Patents Act. The first filing requirement for inventions of war materials is based on a self-assessment principle.

With regard to multinational inventions, i.e. inventions made jointly by an inventor in Denmark and an inventor in another country, in all areas other than war materials, there are no first filing requirements. In matters relating to war materials, Danish law applies if the owner of the patent resides in Denmark, as defined in Section 2a (1) of the Consolidated Secret Patents Act. Joint inventorship/ownership is not addressed by the Secret Patents Act and the Act does not provide for a first filing license.

The Danish group is of the opinion that harmonization in the area of inventorship is desirable and proposes that first filing rules should only apply to inventions of war materials. Moreover, the Danish group suggests that the standard for obtaining a foreign filing license should be based on a self-assessment principle and should address situations of multinational inventions.

Please comment on any additional issues concerning the multinational inventions you consider relevant to this Working Question.

The Danish group has no additional comments.

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