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Referral under Article 112(1)(b) EPC

Dear Mr Messerli,

In accordance with Article 112(1)(b) EPC, I herewith refer the enclosed point of law to the Enlarged Board of Appeal. This point of law, which concerns the application of the exclusion of computer programs as such, is of fundamental importance as it defines the limits of patentability in the field of computing.

Yours sincerely,



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1. SUMMARY OF THE REFERRAL

Even in the 1960s, as the founding fathers of the European Patent Office drafted a new European patent law, it was clear that the patentability of computer programs was a complex issue. Legislative attempts to change or clarify the law in this field have met with more controversy than success, although Article 52 EPC was amended to state that inventions 'in all fields of technology' are patentable, thus making an implicit requirement explicit.

As the EPC was drafted, the feeling was that it was better not to define the exclusion precisely in law, but rather that the matter should be left in the hands of the EPO and the national courts. This flexibility is important as technology develops and new technologies emerge. Nevertheless, to quote a working group in 1972: "it was stressed that a matter as important as computer programmes should not be left in a state of prolonged uncertainty pending legal developments"¹. Diverging decisions of the boards of appeal have indeed created uncertainty, and answers to the questions arising from these decisions are necessary to enable the further, harmonious development of case law in this field.

Currently there are concerns, also expressed by national courts and the public, that some decisions of the boards of appeal have given too restrictive an interpretation of the breadth of the exclusion. It is clear that the European Patent Office should have the leading role in harmonising the practice of patent offices within Europe.

The four questions have been chosen to look at four different aspects of patentability in this field. Firstly the relevance of the category of the claim is questioned. The next three questions concern themselves with where the line should be drawn between those aspects excluded from patentability and those contributing to the technical character of claimed subject-matter: the second question concerns the claim as a whole; the third, individual features of a claim; the fourth, relevant for defining the skills of the (technically) skilled person, concerns the activity (programming) which underlies the resulting product (computer program).

It is hoped that the referral of these questions to the Enlarged Board of Appeal will lead to more clarity concerning the limits of patentability in this field, facilitating the application of the law by examiners and enabling both applicants and the wider public to understand the law regarding the patentability of computer programs according to the EPC.

¹ 5th Meeting of the Inter-Governmental Conference for the Setting up of a European System for the Grant of Patents, held on 24-25 January and 2-4 February 1972, BR/168 e/72 eld/KM/gc, p14, 36

2. DEFINITIONS

A computer program is a series of steps (instructions) which will be carried out by the computer when the program is executed.

A computer is understood to include not only devices which are generally thought of as such, for example desktop PCs, but any programmable apparatus (such as a mobile phone or an embedded processor).

The term 'computer program' ('program' for short) is synonymous with 'software' and a 'program for a computer'.

For the purposes of this referral, the methods referred to in hypothetical examples are intended to be methods which can be implemented wholly by computer.

3. QUESTIONS TO BE REFERRED

3.1. QUESTION 1

CAN A COMPUTER PROGRAM ONLY BE EXCLUDED AS A COMPUTER PROGRAM AS SUCH IF IT IS EXPLICITLY CLAIMED AS A COMPUTER PROGRAM?

I Background

In the 1990s, applicants started to formulate claims for their computer implemented inventions in terms of the computer program, e.g. 'Computer program for carrying out method X' or 'Computer readable medium for storing a computer program for carrying out method X'. The latter formulation and equivalents are referred to as a computer program product claims (CPPs). These formulations are clearly important for applicants as they are routinely included in patent applications in the field of computer technology.

In this field, claim formulations along the following lines are common:

- methods
- systems (i.e. computer systems)
- computer-implemented methods
- computer programs
- computer program products, storing a computer program.

However, the substance of these claims, i.e. the underlying method to be performed by a computer, is often identical.

Recently, in the light of an England and Wales Court of Appeal judgement, the UK Intellectual Property Office issued a practice notice² stating that it seemed likely that few claims to programs or programs on carriers would avoid the exclusion from patentability of programs for computers as such. In practice they rejected nearly all such claims.

In response to a growing dissatisfaction from applicants, a set of test cases were constructed to have the issue decided by the UK courts, and the practice notice was overruled in this respect³. Thus the importance of such claim formulations for applicants is apparent.

II The diverging decisions

Regarding decision **T 1173/97**⁴, the subject-matter of the application that was subject of the appeal related to recovering resources in a computer system. Independent claims defining a method for resource recovery in a computer system and a computer with means for carrying out the method were found to be allowable by the Examining Division.

² Practice notice dated 2 November 2006, point 14:

www.ipo.gov.uk/patent/p-decisionmaking/p-law/p-law-notice/p-law-notice-subjectmatter.htm

³ Practice notice dated 7 February 2008:

www.ipo.gov.uk/patent/p-decisionmaking/p-law/p-law-notice/p-law-notice-subjectmatter-20080207.htm

⁴ T 1173/97 - Computer program product/IBM (OJ EPO 10/1999, 609)

The application was refused only because of two further independent claims directed at a corresponding computer program product. The Examining Division followed the EPO Guidelines valid at the time which stated that a computer program claimed by itself or on a carrier, irrespective of its contents, is excluded from patentability under Art. 52(2) and (3) EPC. The Division considered that economic considerations and international developments (e.g. TRIPS and new practices of other patent offices) could not be taken into account.

The Board was not bound by the Guidelines and in this decision it chose not to follow them. It noted that TRIPS may not be directly applied to the EPC; nevertheless it was taken into consideration and found not to preclude the patenting of computer programs. The Board then set about interpreting the exclusion from patentability of programs for computers as set out in the EPC.

From the combination of the two provisions (Art. 52(2)(c) and (3) EPC), the Board decided that the legislator did not want to exclude from patentability all programs for computers (Reasons, 4). In other words, the Board found that of all computer programs, there existed a subset (computer programs as such) which was excluded from patentability. Those computer programs which were not in this subset were not excluded from patentability.

The Board further concluded (Reasons, 5.2-5.4) that programs for computers are patentable when they have technical character; technical character being an essential requirement for patentability. It considered this to be in line with the exclusion of Art. 52(2)(c) EPC and the requirement that the exclusion be interpreted narrowly (Art. 52(3) EPC).

Decision **T 424/03**⁵ concerned an application disclosing a method of providing expanded clipboard formats for transferring data between formats. The clipboard is a storage area used in the common computer commands 'cut', 'copy' and 'paste'.

In this decision, the Board distinguished a method implemented in a computer system from a computer program. The former was described as a sequence of steps that are actually performed on a computer and achieving an effect. The latter was described as a sequence of computer-executable instructions which just have the potential of achieving such an effect when loaded into, and run on, a computer. Thus a computer implemented method can never be a computer program as such. The Board then introduced a claim category of 'computer program' (Reasons, 5.1).

III The divergence

T 1173/97 placed the emphasis on the function of the computer program (does the claimed program have technical character) rather than the manner in which it is claimed (e.g. as a computer program, a computer program product or a computer-implemented method). It noted that a computer program or computer program product does not directly disclose a technical effect in physical reality; this only becomes the case when the computer program is run on a computer. However, it saw no reason to distinguish between

⁵ T 424/03 - Clipboard formats/MICROSOFT

a direct technical effect and the potential to produce a technical effect (an indirect technical effect) (Reasons, 9.4).

On the other hand, T 424/03 placed emphasis on the manner in which the computer program is claimed. One can consider the case of a method 'x' which is suitable to be implemented on a computer. Following the reasoning of this decision, only a claim of the form 'computer program for method x' could possibly be excluded from patentability as a computer program as such, whereas claims of the form 'computer implemented method x' or 'computer program product storing executable code for method x' would not be excluded (irrespective of the nature of the method x).

IV Consequences

In the field of computer technology, innovation frequently lies in the particular method performed by a computer program while executed by conventional hardware. Consequently, the exclusion of computer programs as such under Article 52(2) and (3) EPC should be of key importance in this field. However, if one were to follow the reasoning of T 424/03, overcoming the exclusion of programs for computers would become a formality, merely requiring formulation of the claim as a computer implemented method or as a computer program product.

3.2. QUESTION 2

(A) CAN A CLAIM IN THE AREA OF COMPUTER PROGRAMS AVOID EXCLUSION UNDER ART. 52(2)(C) AND (3) MERELY BY EXPLICITLY MENTIONING THE USE OF A COMPUTER OR A COMPUTER-READABLE DATA STORAGE MEDIUM?

(B) IF QUESTION 2 (A) IS ANSWERED IN THE NEGATIVE, IS A FURTHER TECHNICAL EFFECT NECESSARY TO AVOID EXCLUSION, SAID EFFECT GOING BEYOND THOSE EFFECTS INHERENT IN THE USE OF A COMPUTER OR DATA STORAGE MEDIUM TO RESPECTIVELY EXECUTE OR STORE A COMPUTER PROGRAM?

I Background

It is established that if the subject-matter of a claim has technical character, then it is not excluded from patentability under Art. 52(2) and (3) EPC. However, in the case of claims in the area of programs for computers (worded, for instance, explicitly as programs for computers or as methods carried out by computers), there is uncertainty about when exactly features can confer technical character to such claims.

The very purpose of a computer program is to be executed by a computer, and to be executed by a computer it must be stored on a computer-readable data storage medium. Even though both the computer and the data storage medium are without doubt technical apparatus, the implicit use of a computer or data storage medium cannot be sufficient to avoid exclusion of computer programs as such. Otherwise the exclusion would be rendered void.

II The diverging decisions

T 1173/97 found (see section 3.1) that a computer program must be considered to be patentable when it has technical character (Reasons, 5.3).

In determining what constituted 'technical character' for a computer program, it was assumed that programs for computers cannot be considered as having technical character for the very reason that they are programs for computers (Reasons, 6.1). Thus the physical modifications of the hardware (causing e.g. electrical currents and the switching of transistors) deriving from the execution of the instructions given by programs for computers cannot per se constitute the required technical character. The technical effect had to be found in the further technical effects deriving from the execution (by the hardware) of the instructions given by the computer program.

Thus the conclusion of the Board was (Headnote): "A computer program product is not excluded from patentability under Art. 52(2) and (3) EPC if, when it is run on a computer, it produces a further technical effect which goes beyond the 'normal' physical interactions between program (software) and computer (hardware)". The Board further noted that (Reasons, 13, 5th paragraph), regarding the exclusions under Art. 52(2) and (3) EPC, it

does not make any difference whether a computer program is claimed by itself or as a record on a carrier.

T 258/03⁶ (Headnote I) found that any method involving technical means is an invention in the sense of Art. 52(1) EPC - i.e. is not excluded from patentability under Art. 52(2) and (3) EPC. This position was supported by various subsequent decisions including T 424/03 (Reasons, 5.1, 2nd paragraph) and T 1284/04⁷ (Reasons, 2).

III The Divergence

Method claims are, in essence, a series of instructions or steps which are to be carried out by any capable entity (this could be a person, a machine, a combination thereof or indeed a computer). A computer implemented method corresponds to the specific case of the entity for carrying out the steps being a computer. In the same way a computer program is a series of instructions or steps, constituting a method, whereby the instructions or steps are carried out by a computer. Thus claims for a computer program and a computer implemented method can be seen as having identical scope. Following this line of thought, the scope of a method claim would encompass a computer program for carrying out that method. This was also the view given in T 38/86⁸ (Reasons, 14).

Regarding T 1173/97, in its analysis of TRIPS (Reasons 2.3) the Board noted that Art. 27(1) TRIPS states that 'patents shall be available for any inventions, whether products or processes, in all fields of technology'. It interpreted this provision as not excluding programs for computers. Consequently the Board must have equated programs for computers to either a product or a process.

Further on in the decision, the Board indicated that the substance of a computer program claim lies in the method which it is intended to carry out when being run on a computer (Reasons, 9.6, 2nd paragraph, lines 1-3). As such it must be assumed that the Board considered 'programs for computers' to be a type of method claim. This would also be in line with G 2/88⁹ (Reasons, 2.2) which defines the two basic types of claims as being physical entities and physical activities.

Unlike an apparatus, which could be infringing whether it is actually operating or not, a method is only (directly) infringed when the method is carried out, whether by a computer or another entity. As such, it seems illogical to distinguish between computer implemented methods and computer programs which will cause a method to be implemented.

The divergence arises when one considers the same method claimed in the form of a computer implemented method or as a computer program. Following T 258/03, the former claim form requires only that technical means are involved (the computer) in order for it to be considered as having technical character. For the latter claim form, on the other hand, this is not sufficient. In this case a further technical effect is required which must go beyond the normal technical effects resulting from the involvement of a computer. Thus different standards for deciding on patentability are applied to the same subject-matter.

⁶ T 258/03 - Auction method/HITACHI (OJ EPO 12/2004, 575)

⁷ T 1284/04 - Loan system/KING

⁸ T 38/86 - Text processing/IBM (OJ EPO 9/1990, 384)

⁹ G 2/88 - Friction reducing additive/MOBIL OIL III (OJ EPO 4/1990, 93)

3.3. QUESTION 3

(A) MUST A CLAIMED FEATURE CAUSE A TECHNICAL EFFECT ON A PHYSICAL ENTITY IN THE REAL WORLD IN ORDER TO CONTRIBUTE TO THE TECHNICAL CHARACTER OF THE CLAIM?

(B) IF QUESTION 3 (A) IS ANSWERED IN THE POSITIVE, IS IT SUFFICIENT THAT THE PHYSICAL ENTITY BE AN UNSPECIFIED COMPUTER?

(C) IF QUESTION 3 (A) IS ANSWERED IN THE NEGATIVE, CAN FEATURES CONTRIBUTE TO THE TECHNICAL CHARACTER OF THE CLAIM IF THE ONLY EFFECTS TO WHICH THEY CONTRIBUTE ARE INDEPENDENT OF ANY PARTICULAR HARDWARE THAT MAY BE USED?

I Background

Regardless of the question whether exclusion under Art. 52(2) and (3) EPC can be avoided simply by choosing an appropriate form of claim, it will always be necessary to evaluate the effects caused by individual features or combinations of features to determine whether they contribute to the technical character of a claim. Determining this contribution is always relevant for evaluating the further requirements of the EPC (such as inventive step). It is noted that no distinction is made here between those physical entities or hardware that are inside a computer and those that are outside.

II The diverging decisions

Decision **T 163/85**¹⁰ was concerned with a claim directed at a television signal which inherently comprised the technical features of the TV system. The Board considered that the non-exhaustive list of exclusions under Art 52(2) and (3) EPC could be generalised to subject-matter which is essentially abstract in nature, which is non-physical and therefore not characterised by technical terms. The Board found that the signal as claimed was a physical reality which could be directly detected by technological means, which therefore was not an abstract entity. Also in **T 190/94**¹¹, the claimed system was found to make a contribution to the art in a field not excluded from patentability because the difference (of the claimed subject-matter over the prior art) manifested itself in the real world in a technical effect on a physical entity.

Decision **T 424/03**, which was concerned with the transfer of data on a computer via a clipboard, considered the method itself to have technical character (i.e. not only because it was claimed as a computer-implemented method). This was because functional data structures were used independently of any cognitive content in order to enhance the internal operation of a computer system with a view to facilitating the exchange of data among various application programs (Reasons, 5.2). According to claim 1 (Facts and submissions, IV), these data structures (clipboard formats) are defined by their purpose ('text', 'file contents' and 'file group descriptor'). It is further specified that the selected data

¹⁰ T 163/85 - Colour television signal/BBC (OJ EPO 9/1990, 379)

¹¹ T 190/94 - No headword

is converted into the file contents clipboard format and stored as a data object, and that the 'file group descriptor clipboard format' is used to hold a file group descriptor holding descriptive information about the data object.

Following a similar line to decision T 424/03, decision **T 125/01**¹² concerned a control unit for a telecommunications apparatus, e.g. a car radio, whereby the characterising portion of the claim related to how the microprocessor operated in response to user input via buttons. The features of the claim that were novel over the prior art consisted of the use of a single table for permitted operating states, rather than a plurality of tables (Reasons, 3.3). The Board accepted that the corresponding problem, as cited in the patent at issue, was the ease of modification and therefore flexible applicability of the control module. It likened the situation to that of a hardware interface, for which a similar problem would clearly be seen as technical.

III The divergence

According to decisions T 163/85 and T 190/94, a technical effect on a physical entity in the real world was required. This was however not the case in T 125/01 and T 424/03. In these decisions the technical effects were essentially confined to the respective computer programs.

For T 125/01 this consisted of writing a program in such a way - via the choice of single or multiple tables - that it can be easily extended. This did not affect the modification of the hardware (a physical entity), but merely simplified the process of (re)programming the control module to adapt the program to work with the modified hardware.

In T 424/03, the various clipboard formats which were seen as functional data structures bore no relation to any technical features of the system in which they were used. The effect of simplifying data transfer between or within applications is also an effect independent of the hardware used.

In the case of features related to computer programs whose effects are confined to the internal working of the computer, there is uncertainty about where the line is to be drawn between technical effects and effects lying solely in the field of programs for computers, in particular if the aspects relating to programming are claimed in any detail.

Following the reasoning of the latter decisions, it would appear that an inventive step could be based on a programmer's choice of elementary programming constructs (tables, loops, subroutines, objects) which solely serve the efficient execution of the program or indeed simplify the programmer's work (e.g. using a subroutine rather than repeating lines of code). It is therefore difficult to contemplate which aspects or effects of a computer program could fall within the exclusion.

¹² T 125/01 - Gerätesteuering/HENZE

3.4. QUESTION 4

(A) DOES THE ACTIVITY OF PROGRAMMING A COMPUTER NECESSARILY INVOLVE TECHNICAL CONSIDERATIONS?

(B) IF QUESTION 4 (A) IS ANSWERED IN THE POSITIVE, DO ALL FEATURES RESULTING FROM PROGRAMMING THUS CONTRIBUTE TO THE TECHNICAL CHARACTER OF A CLAIM?

(C) IF QUESTION 4 (A) IS ANSWERED IN THE NEGATIVE, CAN FEATURES RESULTING FROM PROGRAMMING CONTRIBUTE TO THE TECHNICAL CHARACTER OF A CLAIM ONLY WHEN THEY CONTRIBUTE TO A FURTHER TECHNICAL EFFECT WHEN THE PROGRAM IS EXECUTED?

I Background

Article 52(2) and (3) EPC defines a non-exhaustive list of subject-matter and activities which, as such, shall not be regarded as inventions. This list includes programs for computers. The Boards of Appeal have consistently grouped the excluded subject-matter and activities under the heading 'lacking technical character' (e.g. T 1173/97, Reasons, 5.2 and T 258/03, Reasons, 3.1).

What is not specified in the EPC is whether, or under which circumstances, the activity associated with creating programs for computers, i.e. programming a computer, is a technical activity which is in principle patentable, or a non-technical activity which is as such excluded from patentability.

The answer to this question affects the definition of person skilled in the art, and consequently the nature of problems that can be presented as the objective technical problem. Therefore, it is of key importance in the field of computer technology that there is clarity concerning the skills attributable to the skilled person.

II The diverging decisions

Decision **T 1177/97**¹³ was concerned with a computer implemented method of translation between natural languages. The Board found (Reasons, 3, 7th paragraph) that "implementing a function on a computer system always involves, at least implicitly, technical considerations". The reference to 'computer routines' makes clear that this implementation consisted of programming the computer (Reasons, 7, 3rd paragraph): "Choosing to apply one or the other [translation] principle has clearly consequences for the technical implementation ... since the computer routines have to work differently".

Furthermore, decision **T 172/03**¹⁴, emphasised (Reasons, 6 and 7) that the person skilled in the art is a technical expert, to whom it is inappropriate to attribute professional competence in non-technological fields. In this decision the Board defined the skilled

¹³ T 1177/97 - No headword

¹⁴ T 172/03 - Order management/RICOH

person as a software project team, consisting of programmers (Reasons, 16). The technical problem posed to this skilled person was the software implementation of the non-technical order management method (Reasons, 20 and 21).

Contrary to these decisions, **T 833/91**¹⁵ (Reasons, 3.2), **T 204/93**¹⁶ (Reasons, 3.2) and **T 769/92**¹⁷ (Reasons, 3.7, 5th paragraph) all considered that a programmer's activity, i.e. writing computer programs, falls within the exclusions set out in Art. 52(2)(c) EPC. The decisions consider programming to be a mental act of the programmer.

III The divergence

It seems that the former decisions view programming along the same lines as the configuration of a technical apparatus. This would of course hold even when the method that the computer is being programmed to carry out is non-technical in nature.

However, it has to be noted that modern (high-level) programming languages do their utmost to render technical considerations unnecessary. The term 'programming' is broad and ranges from writing in low-level languages (e.g. assembly language) which are intimately linked to the hardware being programmed, to high level languages which are truly isolated from any details of the hardware. Even such things as recording a macro (recording a sequence of steps to be carried out on a computer, often in the environment of an office application such as a word processor or spreadsheet) must be considered to be a form of programming, even though this would generally be carried out by an expert, or even a day-to-day user, of the office application rather than a technically skilled computer expert.

The latter decisions place more emphasis on the link between the resulting product, which is as such explicitly excluded from patentability, and the activity of producing it. Decision T 1173/97 also gives an indication (Reasons, 11.4-11.5) that it implicitly agrees with the point of view given in T 204/93. This is further supported by a statement by the United Kingdom delegation in the travaux préparatoires¹⁸, according to which computer programs were to be understood as a 'mathematical application of a logical series of steps in a process which was no different from a mathematical method'.

If a computer program is deemed to lack technical character (i.e. it is a computer program as such), it could follow that the activity used to produce the program has to be considered similarly non-technical in nature.

The effects caused by a computer program (which may or may not contribute to its technical character) may occur when the program is executed (for instance how much memory it occupies, how quickly it carries out the tasks for which it was programmed, etc.). On the other hand, there may be effects relating to software development which affect the programmer in his work (ease of maintenance of the program, flexibility, portability, reusability etc.).

¹⁵ T 833/91 - No headword

¹⁶ T 204/93 - No headword

¹⁷ T 769/92 - General purpose management system/SOHEI (OJ EPO 8/1995, 525)

¹⁸ Minutes of the 9th meeting of Working Party I, Luxembourg, 12-22 October 1971, BR 135 e/71 prk, p50, 96

It seems important to consider the actual tasks performed by a programmer. Would he be responsible for the design of the technical system and the role that the computer program plays therein, and thus be solving technical problems, or would the design be the task of an engineer who would then pass on his (programming) requirements to the programmer?

Furthermore, does the answer depend on whether the considerations of a programmer involve any technical details of the particular computer on which the program will run?

4. THE LEGAL FRAMEWORK

4.1. CURRENT STATUS

Article 52 EPC reads as follows:

Patentable inventions

- (1) European patents shall be granted for any inventions, in all fields of technology, provided that they are new, involve an inventive step and are susceptible of industrial application.
- (2) The following in particular shall not be regarded as inventions within the meaning of paragraph 1:
 - (a) discoveries, scientific theories and mathematical methods;
 - (b) aesthetic creations;
 - (c) schemes, rules and methods for performing mental acts, playing games or doing business, and programs for computers;
 - (d) presentations of information.
- (3) Paragraph 2 shall exclude the patentability of the subject-matter or activities referred to therein only to the extent to which a European patent application or European patent relates to such subject-matter or activities as such.

Article 52(2) EPC thus contains a non-exhaustive list of inventions not to be regarded as inventions, whereby its scope is restricted by Article 52(3) EPC which allows only subject-matter or activities referred to in paragraph 2 'as such' to be excluded from patentability.

The wording of Article 52(3) EPC does not provide any guidance as to when an item mentioned in paragraph 2 is to be regarded as an invention.

It is established understanding that an essential element of a 'patentable invention' is its technical character. However, the term 'technical character' has not been defined in the EPC. Although in older case law of the boards of appeal the requirement of a 'technical character' was evaluated by the so-called contribution approach¹⁹, the current consensus appears to be that this approach does not have a legal basis in the EPC²⁰.

¹⁹ For example T 38/86 - Text processing/IBM (OJ EPO 9/1990, 384)

²⁰ For example T 931/95 - Controlling pension benefits system/PBS PARTNERSHIP (OJ EPO 10/2001, 441), Reasons, 2 and 6

Programs for computers are included in the non-exhaustive list of items which as such are not to be regarded as inventions (Article 52(2)(c) EPC)²¹. None of these items are defined, and it is clear from the original travaux préparatoires that the legislator intended to merely lay down general principles and leave the EPO and national courts to interpret these terms²². Nevertheless, it was stressed that “a matter as important as computer programmes should not be left in a state of prolonged uncertainty pending legal developments which, in any case, could differ from country to country”²³. It follows from this that already in 1972 the legislator was aware on the one hand of the difficulties concerning a definition of the term 'programs for computers', and on the other hand of the importance of this (then upcoming) field of development, and wanted to create a unitary legal basis.

4.2. REVISION OF THE EPC (“EPC 2000”)

In 2000, a diplomatic conference was held to have the first major revision of the EPC. The initial proposal²⁴ stated that “[t]he list of items found in Article 52(2) EPC are simply examples of non-technical ‘inventions’, which would remain unpatentable even in the absence of this provision”; therefore it proposed to delete this paragraph. Similar thoughts apparently resulted in the absence of such a paragraph in TRIPS²⁵.

The Committee on Patent Law was unable to reach a conclusive opinion on this proposal²⁶. Nevertheless, the Administrative Council in its 81st meeting decided that the paragraphs 2 and 3 of Article 52 EPC were to be kept in the Basic Proposal drawn up for the Diplomatic Conference, but the reference to ‘programs for computers’ in paragraph 2 was to be deleted²⁷. This was similar to the negotiations that took place in 1973²⁸. Arguments put forward during the negotiations included references to the forthcoming EU Directive on the protection of computer-implemented inventions, and that “the exclusion of patentability of computer programs follow[s] from their lack of sufficient technical character”²⁹.

The Basic Proposal for the Diplomatic Conference reflects the negotiations and thoughts of the preparatory meetings in particular by emphasizing the technical character of a patentable invention and indicating that “[t]he Committee on Patent Law and the

²¹ However, programs for computers were not always included in the proposed list of exclusions - cf. for example preliminary drafts of the EPC (2335/IV/65-E dated 22 January 1965 and BR/70/70 dated 21 December 1970)

²² Cf. Minutes of the 9th meeting of the Working Party I held from 12 to 22 October 1971, in Luxembourg, BR/135 e/71 prk, p50, 96 and Minutes of the Munich Diplomatic Conference for the Setting up of a European System for the Grant of Patents, Munich, 10 September to 5 October 1973, M/PR/I, p28, 18

²³ Cf. 5th Meeting of the Inter-Governmental Conference for the Setting up of a European System for the Grant of Patents, held on 24-25 January and 2-4 February 1972, BR/168 e/72 eld/KM/gc, p14, 36

²⁴ Revision of the European Patent Convention, CA/100/00 e, p39, 6

²⁵ “TRIPS und das Patentierungsverbot von Software ‘als Solche’”, Daniele Schiuma, GRUR Int 1998, p852 ff., 3-4

²⁶ Minutes of the 14th meeting of the Committee on Patent Law, 3-6 July 2000, CA/PL PV 14 e, p26, 156

²⁷ Minutes of the 81st meeting of the Administrative Council, 5-7 September 2000, CA/PV 81 e, p10, 72

²⁸ Comments by CPCCI (Standing Conference of the Chambers of Commerce and Industry of the European Economic Community), 2 April 1973, M/18, p160, 3

²⁹ Minutes of the 81st meeting of the Administrative Council, 5-7 September 2000, CA/PV 81 e, p7, 51a

Administrative Council have advocated the **deletion of programs for computers from Article 52(2)(c) EPC**³⁰.

Although a broad consensus regarding the wording of Article 52 EPC had prevailed prior to the Diplomatic Conference, the French Delegation re-introduced the reference to "programs for computers" during the conference, concerned that removing this exclusion might be seen as a broadening of the range of patentable subject-matter³¹. Similar concerns were expressed by the German delegation, although it shared the view of other delegations that the deletion of the exclusion would not imply any significant change in the legal position³².

It was decided, in view of the possibility of future EU legislation on this matter, not to delete the words "and programs for computers". The one amendment to Article 52 that was adopted was the addition in paragraph 1 of the statement that European patents shall be granted "in all fields of technology". The intention of this amendment was to enshrine 'technology' in the basic provision of substantive patent law, as well as aligning the article with Article 27(1) TRIPS.

4.3. TRIPS

The TRIPS agreement³³ is aimed at setting common standards and principles concerning the availability, scope and use of trade-related intellectual property rights, including patent rights. However, it may not be applied directly to the EPC because the European Patent Organisation itself is not a member of the WTO and is not a signatory of the agreement. Justification for its applicability to the EPC based on Article 30 of the Vienna Convention is questionable.

Article 27 TRIPS defines what constitutes patentable subject-matter. While paragraph 1 lays down the principle that patents shall be "available for any inventions, whether products or processes, **in all fields of technology**" (emphasis added), paragraphs 2 and 3 provide for a possibility to exclude certain subject-matter. However, there is no reference to an exclusion from patentability for programs for computers or similar. Computer programs are to be protected as literary works under the Berne Convention of 1971 (Article 10(1) TRIPS), however, this does not imply that such programs cannot also be patented.

Consequently, whether or not programs for computers are excluded from patentability under TRIPS depends on whether programs for computers are defined as inventions in a field of technology.

This uncertainty is reflected in the legal literature. Some scholars point out that, due to the wording of the provision, signatories of TRIPS are free to decide whether software-related inventions are patentable³⁴. Other scholars point out that programs for computers contain

³⁰ Basic proposal for the revision of the European Patent Convention, 13 October 2000, MR/2/00, p43, 3

³¹ MR/8/00, p2 ff.

³² MR/16/00

³³ Agreement on Trade-Related Aspects of Intellectual Property Rights (Annex 1C of the Marrakesh Agreement Establishing the World Trade Organization)

³⁴ C.M. Correa/A.A. Yusuf, Intellectual Property and International Trade: The TRIPS Agreement, p199 f. and Neef, in Busche/Stoll, TRIPs, Art. 27 Rdn. 33-34, p447 f.

a technical element *per se* and therefore conclude that the list of non-patentable inventions comprised in Article 52(2) EPC is a violation of TRIPS³⁵.

As to the question whether some programs for computers can be considered to be inventions, or whether such programs for computers have technical character, one has to conclude that no guidance can be found in the TRIPS agreement.

4.4. EUROPEAN UNION

In 2002, the Commission of the European Communities proposed a directive to regulate the patentability of computer implemented inventions. According to Article 4 of the original proposal³⁶, member states should ensure that computer-implemented inventions are patentable, providing of course that they are susceptible of industrial application, are new and involve an inventive step. Article 4(2) states that a requirement of inventive step is the presence of a technical contribution, i.e. the contribution to the state of the art must have technical character.

According to a version of the directive proposed by the European Parliament in 2003³⁷, the term 'technical contribution' was equated with the term 'invention'. The use of natural forces to control physical effects beyond the digital representation of information was said to belong to a field of technology, whereas the processing, handling, and presentation of information did not, even where technical devices were employed for such purposes. The term 'field of technology' was defined as "an industrial application domain requiring the use of controllable forces of nature to achieve predictable results". These definitions use aspects of the terms used on occasion by the German courts to define what is patentable³⁸.

As widely known, the legislative initiative of the European Commission failed when on 6 July 2005 the European Parliament rejected the proposed common position and declared the legislative procedure closed³⁹.

From the documents relating to the drafting of the proposed directive it appears that the main differences between the positions of the European Council and the European Parliament lay in the delimitation of the definitions set out in the directive. While the proposal of the European Council contained rather broad definitions, the European Parliament introduced some amendments which narrowed the scope of protection offered through patents in the field of 'computer-implemented inventions', in particular in the area of interoperability and data processing. One of the amendments proposed by the European Parliament was the requirement that a patentable invention be in a 'field of technology', and defined this as 'requiring the use of controllable forces of nature to achieve predictable results in the physical world'⁴⁰.

³⁵ "TRIPS und das Patentierungsverbot von Software 'als Solche'", Daniele Schiuma, GRUR Int 1998, p852 f., 8

³⁶ "Proposal for a Directive of the European Parliament and of the Council on the patentability of computer-implemented inventions", COM(2002) 92 final, 20 February 2002

³⁷ P5_TC1-COD(2002)0047 dated 26 March 2004 (OJ EU C 77 E, p230 ff., Article 2)

³⁸ For example German Bundesgerichtshof decisions X ZB 15/67 "Rote Taube", 27 March 1969 (GRUR 1969, 672 ff.) and X ZB 15/98 "Sprachanalyseeinrichtung", 11 May 2000 (GRUR Int 2000, 930 ff.)

³⁹ P6_TA(2005)0275 dated 6 July 2005 (OJ EU C 157 E, p265)

⁴⁰ Recommendation for Second Reading, A6-0207/2005 of 21 June 2005, amendments 17 and 19.

4.5. CONCLUSION

The principle of protection of certain computer-implemented inventions by patents is in line with the EPC and TRIPS, as well as with the various versions of the proposed EU directive.

As mentioned above, Article 52 EPC was extensively discussed in the different forums before and during the Diplomatic Conference leading to the adoption of EPC 2000. While the technical nature of inventions was emphasised by introducing the reference to "all fields of technology" in Article 52(1) EPC, paragraph 2 was not amended.

From the historical documents it appears that the authors of the EPC agreed that a computer program could only be patentable if it had technical character. This view is supported by the different comments given by delegates referring to the amendment of paragraph 1. However, this technical character, necessary to avoid the exclusion laid down in Article 52(2) EPC, was not defined.

Furthermore, the wording of Article 52(2) EPC provides no indication as to whether the exclusion of certain items is based on the fact that the items mentioned lack the necessary technical character or whether the exclusion is based on broader social or political considerations. The possibility that some excluded items are indeed technical is left open by the phrase "shall not be regarded as inventions". Consequently, from the wording of Article 52(2) EPC, no conclusion can be drawn concerning the question of whether a computer program is technical or not.

In the absence of guidance from the law and its preparatory documents, and in view of the existence of divergences of opinion regarding how the computer program exclusion should be applied, it is considered appropriate at this stage to refer the questions set out in the previous section to the Enlarged Board of Appeal for its opinion.

Documents to which reference is made

Footnote number	Corresponding document
1	5 th Meeting of the Inter-Governmental Conference for the Setting up of a European System for the Grant of Patents, held on 24-25 January and 2-4 February 1972, BR/168 e/72 eld/KM/gc
2	Practice notice dated 2 November 2006: ww.ipo.gov.uk/patent/p-decisionmaking/p-law/p-law-notice/p-law-notice-subjectmatter.htm
3	Practice notice dated 7 February 2008: www.ipo.gov.uk/patent/p-decisionmaking/p-law/p-law-notice/p-law-notice-subjectmatter-20080207.htm
4	T 1173/97 - Computer program product/IBM (OJ EPO 10/1999, 609)
5	T 424/03 - Clipboard formats/MICROSOFT
6	T 258/03 - Auction method/HITACHI (OJ EPO 12/2004, 575)
7	T 1284/04 - Loan system/KING
8	T 38/86 - Text processing/IBM (OJ EPO 9/1990, 384)
9	G 2/88 - Friction reducing additive/MOBIL OIL III (OJ EPO 4/1990, 93)
10	T 163/85 - Colour television signal/BBC (OJ EPO 9/1990, 379)
11	T 190/94 - No headword
12	T 125/01 - Gerätesteuerung/HENZE
13	T 1177/97 - No headword
14	T 172/03 - Order management/RICOH
15	T 833/91 - No headword
16	T 204/93 - No headword
17	T 769/92 - General purpose management system/SOHEI (OJ EPO 8/1995, 525)
18	Minutes of the 9 th meeting of Working Party I, Luxembourg, 12-22 October 1971, BR 135 e/71 prk
19	<i>See reference 8</i>
20	T 931/95 - Controlling pension benefits system/PBS PARTNERSHIP (OJ EPO 10/2001, 441)

21	Preliminary drafts of the EPC: - 2335/IV/65-E dated 22 January 1965 - BR/70/70 dated 21 December 1970
22	- <i>See reference 18</i> - Minutes of the Munich Diplomatic Conference for the Setting up of a European System for the Grant of Patents, Munich, 10 September to 5 October 1973, M/PR/I
23	<i>See reference 1</i>
24	Revision of the European Patent Convention, CA/100/00 e
25	“TRIPS und das Patentierungsverbot von Software ‘als Solche’”, Daniele Schiuma, GRUR Int 1998, p852 ff.
26	Minutes of the 14 th meeting of the Committee on Patent Law, 3-6 July 2000, CA/PL PV 14 e
27	Minutes of the 81 st meeting of the Administrative Council, 5-7 September 2000, CA/PV 81 e
28	Comments by CPCCI (Standing Conference of the Chambers of Commerce and Industry of the European Economic Community), 2 April 1973, M/18
29	<i>See reference 27</i>
30	Basic proposal for the revision of the European Patent Convention, 13 October 2000, MR/2/00
31	MR/8/00
32	MR/16/00
33	Agreement on Trade-Related Aspects of Intellectual Property Rights (Annex 1C of the Marrakesh Agreement Establishing the World Trade Organization)
34	- C.M. Correa/A.A. Yusuf, Intellectual Property and International Trade: The TRIPS Agreement, p199 f. - Neef, in Busche/Stoll, TRIPs, Art. 27 Rdn. 33-34, p447 f.
35	<i>See reference 25</i>
36	“Proposal for a Directive of the European Parliament and of the Council on the patentability of computer-implemented inventions”, COM(2002) 92 final, 20 February 2002
37	P5_TC1-COD(2002)0047 dated 26 March 2004 (OJ EU C 77 E, p230 ff.)

38	German Bundesgerichtshof decisions - X ZB 15/67 "Rote Taube", 27 March 1969 (GRUR 1969, 672 ff.) - X ZB 15/98 "Sprachanalyseeinrichtung", 11 May 2000 (GRUR Int 2000, 930 ff.)
39	P6_TA(2005)0275 dated 6 July 2005 (OJ EU C 157 E, p265)
40	Recommendation for Second Reading, A6-0207/2005 of 21 June 2005



Case number:

G 3/08

Order

1. In accordance with the business distribution scheme of the Enlarged Board of Appeal, the following shall be charged to decide about the referred points of law:

Chairman: P. Messerli (CH)

legally qualified member: M. Vogel (DE)

technically qualified member: D. Rees (GB)

legally qualified member: M. Dorn (DK)

legally qualified member: K. Härmand (EE)

technically qualified member: A. Klein (FR)

legally qualified member: J. - P. Seitz (FR)

2. The rapporteur shall be: M. Vogel
The additional rapporteur shall be: D. Rees

3. Back to the Registry for further action.

Munich, 6.11.2008

Chairman P. Messerli



Europäisches
Patentamt

European
Patent Office

Office européen
des brevets

Große
Beschwerdekammer

Enlarged
Board of Appeal

Grande
Chambre de recours

Case number:
G 3/08

**Decision
of the Enlarged Board of Appeal
of 11 November 2008**

Having regard to Article 10 (2) of its Rules of Procedure, the Enlarged Board of Appeal has decided to announce in the Official Journal of the EPO further provisions concerning statements by third parties on the points of law concerning the patentability of programs for computers referred to it by the President of the European Patent Office.

The Registrar:

W. Roepstorff

The Chairman:

P. Messerli

Verfahrensordnung der
Großen Beschwerdekammer,

Rules of Procedure
of the Enlarged Board of Appeal

Règlement de procédure de la
Grande Chambre de recours

Artikel 10

Article 10

Article 10

Stellungnahmen Dritter

Statements by third parties

Observations des tiers

(1) Im Rahmen der Verfahren
gemäß
Artikel 112 EPÜ können
schriftliche Stellungnahmen,
die von Dritten eingereicht
werden und die in diesem
Verfahren zu
klärende Rechtsfragen betreffen,
nach
dem Ermessen der Kammer
behandelt
werden.

(1) In the course of proceedings
under
Article 112 EPC, any written
statement
concerning the points of law
raised in
such proceedings which is sent to
the
Board by a third party may be
dealt with
as the Board thinks fit.

(1) Au cours des procédures
visées à
l'article 112 CBE, la Chambre
traite
comme elle le juge bon toutes
observations
écrites qui lui sont adressées par
les tiers relatives aux questions
de droit
objet de ladite procédure.

(2) Die Kammer kann im
Amtsblatt des
Europäischen Patentamts nähere
Bestimmungen betreffend diese
Stellungnahmen bekanntmachen.

(2) The Board may announce
further
provisions concerning such
statements
in the Official Journal of the
European
Patent Office if it seems
appropriate.

(2) Si elle l'estime utile, la
Chambre
publie dans le Journal officiel de
l'Office
européen des brevets toutes
autres
dispositions concernant de telles
observations.

Mitteilung der Großen Beschwerdekammer zum Verfahren G 3/08

Die Präsidentin des Europäischen Patentamts hat der Großen Beschwerdekammer gemäß Artikel 112 (1) b) EPÜ Rechtsfragen vorgelegt, die die Grenzen der Patentierbarkeit von Programmen für Datenverarbeitungsanlagen gemäß Artikel 52 (2) c) und (3) EPÜ betreffen. Das Verfahren ist unter dem Aktenzeichen G 3/08 anhängig.

Die Vorlagefragen lauten:

1. Kann ein Programm für Datenverarbeitungsanlagen nur dann als Programm für Datenverarbeitungsanlagen als solches von der Patentierbarkeit ausgeschlossen werden, wenn es ausdrücklich als Programm für Datenverarbeitungsanlagen beansprucht wird?
2. a) Kann ein Anspruch auf dem Gebiet der Programme für Datenverarbeitungsanlagen das Patentierungsverbot nach Artikel 52 (2) c) und (3) EPÜ allein schon dadurch überwinden, dass ausdrücklich die Verwendung einer Datenverarbeitungsanlage oder eines computerlesbaren Datenspeichermediums erwähnt wird?
- b) Wenn Frage 2 a) verneint wird, ist zur Überwindung des Patentierungsverbots eine weitere technische Wirkung erforderlich, die über die Wirkungen hinausgeht, die mit der Verwendung einer Datenverarbeitungsanlage oder eines Datenspeichermediums zur Ausführung bzw. Speicherung eines Programms für Datenverarbeitungsanlagen inhärent verbunden sind?
3. a) Muss ein beanspruchtes Merkmal eine technische Wirkung auf einen physikalischen Gegenstand in der realen Welt hervorrufen, um einen Beitrag zum technischen Charakter des Anspruchs zu leisten?
- b) Wenn Frage 3 a) bejaht wird, ist als physikalischer Gegenstand eine nicht näher bestimmte Datenverarbeitungsanlage ausreichend?

Communication from the Enlarged Board of Appeal concerning case G 3/08

In accordance with Article 112(1)(b) EPC, the President of the European Patent Office has referred the following points of law concerning the limits of patentability of programs for computers within the meaning of Article 52(2)(c) and (3) EPC to the Enlarged Board of Appeal. The case is pending under ref. No. G 3/08.

The questions referred are:

1. Can a computer program only be excluded as a computer program as such if it is explicitly claimed as a computer program?
- 2.(a) Can a claim in the area of computer programs avoid exclusion under Art. 52(2)(c) and (3) merely by explicitly mentioning the use of a computer or a computer-readable data storage medium?
- (b) If question 2(a) is answered in the negative, is a further technical effect necessary to avoid exclusion, said effect going beyond those effects inherent in the use of a computer or data storage medium to respectively execute or store a computer program?
- 3.(a) Must a claimed feature cause a technical effect on a physical entity in the real world in order to contribute to the technical character of the claim?
- (b) If question 3(a) is answered in the positive, is it sufficient that the physical entity be an unspecified computer?

Communication de la Grande Chambre de recours concernant la procédure G 3/08

Conformément à l'article 112(1)b) CBE, la Présidente de l'Office européen des brevets a soumis à la Grande Chambre de recours des questions de droit relatives aux limites de la brevetabilité des programmes d'ordinateur au sens de l'article 52(2)c) et (3) CBE. L'affaire est en instance sous le numéro G 3/08.

Les questions de la saisine sont les suivantes :

1. Un programme d'ordinateur ne peut-il être exclu à titre de programme d'ordinateur en tant que tel que s'il est revendiqué de façon explicite en tant que programme d'ordinateur ?
2. a) Une revendication relevant du domaine des programmes d'ordinateur peut-elle échapper à l'exclusion prévue à l'article 52(2)c) et (3) CBE en mentionnant simplement de façon explicite l'utilisation d'un ordinateur ou d'un moyen d'enregistrement de données déchiffrables par ordinateur ?
- b) S'il est répondu par la négative à la question 2 a), un effet technique supplémentaire est-il nécessaire pour échapper à l'exclusion, ledit effet allant au-delà des effets inhérents à l'utilisation d'un ordinateur ou d'un moyen d'enregistrement de données en vue, respectivement, d'exécuter ou d'enregistrer un programme d'ordinateur ?
3. a) Une caractéristique revendiquée doit-elle produire un effet technique sur une entité physique dans le monde réel pour contribuer au caractère technique de la revendication ?
- b) S'il est répondu par l'affirmative à la question 3 a), suffit-il que cette entité physique soit un ordinateur non déterminé ?

c) Wenn Frage 3 a verneint wird, können Merkmale einen Beitrag zum technischen Charakter eines Anspruchs leisten, wenn die einzigen Wirkungen, zu denen sie beitragen, unabhängig von der jeweils verwendeten Hardware sind?

(c) If question 3(a) is answered in the negative, can features contribute to the technical character of the claim if the only effects to which they contribute are independent of any particular hardware that may be used?

c) S'il est répondu par la négative à la question 3 a), des caractéristiques peuvent-elles contribuer au caractère technique de la revendication si les seuls effets auxquels elles contribuent sont indépendants de tout matériel informatique particulier qui est susceptible d'être utilisé ?

4. a) Erfordert die Tätigkeit des Programmierens einer Datenverarbeitungsanlage notwendigerweise technische Überlegungen?

4.(a) Does the activity of programming a computer necessarily involve technical considerations?

4. a) L'activité consistant à programmer un ordinateur implique-t-elle nécessairement des considérations d'ordre technique ?

b) Wenn Frage 4 a bejaht wird, leisten dann alle Merkmale, die sich aus der Tätigkeit des Programmierens ergeben, einen Beitrag zum technischen Charakter eines Anspruchs?

(b) If question 4(a) is answered in the positive, do all features resulting from programming thus contribute to the technical character of a claim?

b) S'il est répondu par l'affirmative à la question 4 a), les caractéristiques résultant de la programmation contribuent-elles par conséquent toutes au caractère technique d'une revendication ?

c) Wenn Frage 4 a verneint wird, können Merkmale, die sich aus der Tätigkeit des Programmierens ergeben, nur dann einen Beitrag zum technischen Charakter eines Anspruchs leisten, wenn sie bei der Ausführung des Programms zu einer weiteren technischen Wirkung beitragen?

(c) If question 4(a) is answered in the negative, can features resulting from programming contribute to the technical character of a claim only when they contribute to a further technical effect when the program is executed?

c) S'il est répondu par la négative à la question 4 a), les caractéristiques résultant de la programmation ne peuvent-elles contribuer au caractère technique d'une revendication que si elles contribuent à un effet technique supplémentaire lors de l'exécution du programme ?

Der vollständige Text der Vorlage in englischer Sprache kann auf der Website des Europäischen Patentamts unter www.epo.org/patents/appeals/eba-decisions/referrals/pending.html abgerufen werden.

The text of the referral in the English language is available on the Website of the European Patent Office under www.epo.org/patents/appeals/eba-decisions/referrals/pending.html.

Le texte de la saisine en langue anglaise peut être consulté sur le site Internet de l'OEB à l'adresse suivante : www.epo.org/patents/appeals/eba-decisions/referrals/pending.html.

Die Große Beschwerdekammer wird sich in der folgenden Besetzung mit der Vorlage befassen:

The Enlarged Board of Appeal considering the referral will be composed as follows:

La Grande Chambre de recours qui examinera les questions de droit soumises sera composée de la façon suivante :

P. Messerli (Vorsitzender), M. Vogel (DE), D. Rees (GB), M. Dorn (DK), K. Härmand (EE), A. Klein (FR), J.-P. Seitz (FR).

P. Messerli (CH) (Chairman), M. Vogel (DE), D. Rees (GB), M. Dorn (DK), K. Härmand (EE), A. Klein (FR), J.-P. Seitz (FR).

P. Messerli (CH) (Président), M. Vogel (DE), D. Rees (GB), M. Dorn (DK), K. Härmand (EE), A. Klein (FR), J.-P. Seitz (FR).

Es ist damit zu rechnen, dass Dritte von der Gelegenheit Gebrauch machen wollen, schriftliche Stellungnahmen nach Artikel 10 der Verfahrensordnung der Großen Beschwerdekammer (ABI. EPA 2007, 303 ff.) einzureichen. Damit solche Stellungnahmen in geeigneter Form berücksichtigt werden können, sollten sie **bis Ende April 2009** unter Nennung des Aktenzeichens G 3/08 und unter Beifügung etwaiger neu aufgeführter Dokumente bei der Geschäftsstelle der Großen Beschwerdekammer eingereicht werden. Eine zusätzliche Einreichung der Stellungnahme und Dokumente in elektronischer Form wäre dienlich (Dg3registry_eba@epo.org).

It is expected that third parties will wish to use the opportunity to file written statements in accordance with Article 10 of the Rules of Procedure of the Enlarged Board of Appeal (OJ EPO 2007, 303 ff.). To ensure that any such statements can be given due consideration they should be filed together with any new cited documents by the **end of April 2009** at the Registry of the Enlarged Board of Appeal, quoting case number G 3/08. An additional filing of the statement and documents in electronic form would be appreciated (Dg3registry_eba@epo.org).

Il est probable qu'à cette occasion des tiers souhaiteront user de la possibilité de présenter des observations écrites conformément à l'article 10 du règlement de procédure de la Grande Chambre de recours (JO OEB 2007, 303 s.). Afin que ces observations puissent être dûment prises en compte, elles devront être présentées, avec tout nouveau document cité à leur appui, au greffe de la Grande Chambre de recours **d'ici la fin avril 2009**, sous le numéro de référence G 3/08. L'envoi électronique des observations et documents serait également apprécié (Dg3registry_eba@epo.org).



Europäisches
Patentamt

Große
Beschwerdekammer

European
Patent Office

Enlarged
Board of Appeal

Office européen
des brevets

Grande
Chambre de recours

Case number:

G 3/08

Order

1. **Change of composition of the Board** (compare to order of 6.11.08)

Due to an administrative error Ms. K. Härmand was designated to sit in the present case, instead of Mr. U. Scharen, who should have been designated according to the business distribution scheme of the Enlarged Board of Appeal. This is hereby corrected.

Chairman:	P. Messerli (CH)
legally qualified member:	M. Vogel (DE)
technically qualified member:	D. Rees (GB)
legally qualified member:	M. Dorn (DK)
technically qualified member:	A. Klein (FR)
legally qualified member:	U. Scharen (DE)
legally qualified member:	J. - P. Seitz (FR)

2. The rapporteur shall be: M. Vogel
The additional rapporteur shall be: D. Rees

3. Back to the Registry for further action.

Munich, 20.2.08

Chairman

P. Messerli

European Patent Office | 80298 MUNICH | GERMANY

To the
President of the EPO

c/o Direction 5.2.1

European Patent Office
80298 Munich
Germany

3010
Registry


Wolfgang Roepstorff
Head of Registry

Tel. +49 (0)89 2399 - 3010
Fax +49 (0)89 2399 - 3014
wroepstorff@epo.org

4.11.2009

**Communication from the Registrar of the Enlarged Board of Appeal
concerning case G 3/08**

Please find enclosed a copy of the Interlocutory Decision of 16 October
2009.


W. Roepstorff
Registrar

European Patent Office
Erhardtstr. 27
80469 Munich
Germany

www.epo.org

Registered letter

Internal distribution code:

- (A) [] Publication in OJ
(B) [X] To Chairmen and Members
(C) [] To Chairmen
(D) [] No distribution

**Datasheet for the Interlocutory Decision
of 16 October 2009**

Case Number: G 0003/08

Language of the proceedings: EN

Referral by the President of the EPO in relation to a point of law pursuant to Article 112(1)(b) EPC

Headword:

-

Relevant legal provisions:

EPC Art. 24
RPBA Art. 4

Relevant legal provisions (EPC 1973):

EPC Art. 24

Keyword:

"Objection to a member of the EBA, suspicion of partiality"

Decisions cited:

G 0001/05, G 0002/08, T 0954/98, J 0015/04

[2002] EWCA Civ 90, [2003] QB 528 - Taylor v. Lawrence; [2003] UKHL 35, [2003] ICR 856 - Lawal v. Northern Spirit Ltd.; Locabail (UK) Ltd. v. Bayfield Properties Ltd.

Catchword:

-



**Europäisches
Patentamt**

**European
Patent Office**

**Office européen
des brevets**

Große
Beschwerdekammer

Enlarged
Board of Appeal

Grande
Chambre de recours

Case Number: G 0003/08

I n t e r l o c u t o r y D e c i s i o n
of the Enlarged Board of Appeal
of 16 October 2009

Composition of the Board:

Chairman: P. Messerli
Members: M. J. Vogel
P. Alting Van Geusau
M. Dorn
A. G. Klein
U. Scharen
J.-P. Seitz

Summary of Facts and Submissions

I. In the present referral case under Article 112(1)b EPC concerning several questions raised by the President of the EPO on Computer Implemented Inventions ("CII") the Enlarged Board of Appeal invited the public to file opinions on the questions submitted by the President.

II. In an *amicus curiae* brief addressed to the Enlarged Board on 26 April 2009 Mr M. Schulz contested the impartiality of the Board giving the following reasons:

1. A technically qualified person in charge and mandated by the Enlarged Board of Appeal had officially and publicly given his opinion on the decisions mentioned in the referral of the President and on the interpretation of the EPC with respect to the exclusion of computer programs from patentability, among others on the decision in the case T 1173/97.

2. In the documents of the Diplomatic Conference of 2000, the decision in the case T 1173/97 was considered to justify the deletion of the EPC provision excluding computer programs as non patentable subject matter. This means that this decision was not taken on the basis of the law in force at that time.

3. Furthermore, the person mentioned above, now a member of the Enlarged Board in the present case, supported the EU-proposal of a directive on CII as a lobbyist of the Commission. He declared publicly that the then-drafted version of the EU-directive would not initiate a reversal of the jurisdiction of the Boards of Appeal. This is further proof that the then-valid

law, which excluded computer programs from legal protection, had been disregarded by the Boards.

4. Finally, just before its publication, a member of the Boards of Appeal publicly took the position that the referral of the President was inadmissible. This was an undue attempt to put pressure on the President and the Members of the Enlarged Board.

5. On the strength of past experience with the behaviour of Board members the question is not whether there are different decisions and even whether these decisions are in line with the Convention. These questions have already been answered by the Boards' decisions. The question is rather whether it is possible having regard to the foregoing facts to compose an Enlarged Board from members of the Boards of Appeal, who have already been subject to a reproach of obliqueness.

6. Under these conditions there is a suspicion of partiality with the consequence that the present composition of the Enlarged Board has to be dissolved and the grounds of dissolution have to be published.

III. After due deliberation of the Board, in the absence of the member concerned, the Chairman of the Enlarged Board of Appeal by order dated 28 September 2009 appointed Mr Alting van Geusau as alternate to Mr Rees for the purpose of the proceedings under Article 4 RPEBA and Article 24(4) EPC.

IV. In his statement according to Article 4(2) RPEBA Mr Rees declared that, as a director in DG 2 between

2000 and 2003, he was assigned the duty of explaining the examination policy of DGs 1 and 2 with respect to computer-implemented inventions (CII), which was based on the case law of the Boards of Appeal, to the public and external bodies like the European Parliament. Furthermore he did the same when he attended as an expert for the European Commission a number of meetings of the responsible committee of the Council of Ministers where the proposal of a EU-directive on CII was discussed.

Reasons for the Decision

- 1.1 As provided by Article 24(3) EPC, members of a Board of Appeal or of the Enlarged Board of Appeal may be objected to by any party for one of the reasons mentioned in Article 24(1) EPC, or if suspected of partiality. Whereas objections based on Article 24(1) EPC (*iudex inhabilis*) may be raised by anyone, whether he is a party or not, the right to object to a member of the Board because of alleged partiality (*iudex suspectus*) is reserved to parties in the proceedings (see interlocutory decision of 15 June 2009 in case G 2/08, point 1.4 of the Reasons). In referral cases under Article 112 EPC, however, members of the public who file *amicus curiae* briefs do not have the status of a party. They are not entitled to file requests but only to submit their personal view of the case or that of their organisations, in order to support the Board with arguments that should be considered in its findings. Since an *amicus curiae* is not a party to the referral proceedings his request for exclusion of a

member of the Enlarged Board or of the Enlarged Board as a whole is inadmissible under Article 24(3) EPC.

- 1.2 However, pursuant to Rule 4(1) of the Rules of Procedure of the Enlarged Board of Appeal (RPEBA) in the version approved by the Administrative Council of the EPO on 7 December 2006 (OJ 2007, 304), the procedure of Article 24(4) EPC is also to be applied, if the Enlarged Board of Appeal has knowledge of a possible reason for exclusion or objection which does not originate from a member himself or from any party to the proceedings. Under this provision the submissions of a third party with respect to a member of the Enlarged Board to be objected to according to Article 24(1) EPC or suspected of partiality under Article 24(3) EPC are taken as information on the basis of which the Board can *ex officio* look at the alleged grounds of objection or suspicion of partiality.

- 2.1 In the *amicus curiae* brief under consideration it is not alleged that one of the members of the Enlarged Board should be excluded from the case for reasons of a personal interest in the case, or for having been involved previously as a representative of the party (Article 24(1) EPC). Rather, the submission is based on the ground that one member of the Enlarged Board of Appeal in this case as well as the Board as a whole is suspected of partiality.

- 2.2 The interlocutory decision in case G 2/08 mentioned under point 1.1 above states that it might appear appropriate not to proceed any further with a complaint or information received if the so-called "possible" reason for exclusion or objection which does not

originate from a party to the proceedings or the Enlarged Board of Appeal itself, would amount to an abuse of procedure. The decision mentions as an example a complaint that is completely unsubstantiated or ignores established case law (point 2.3 of the Reasons).

- 2.3 Turning to the present case, the Enlarged Board notes that the submissions in the *amicus curiae* brief are vague and largely unsubstantiated. The brief does not say who made which concrete remarks in which function under which circumstances and in which connection with respect to the referred questions such as to justify his exclusion as a member of the Enlarged Board of Appeal for reasons of suspicion of partiality.

Nevertheless the Enlarged Board is in the position to identify Mr D. Rees on the basis of these submissions as the member suspected in the *amicus curiae* brief and is also aware of his earlier duties as a director in DG 2 of the EPO between 2000 and 2003 and as an expert for the EU-Commission in the field of CII at that time. But these facts submitted to establish the suspicion of partiality are not suitable to do so. The mere general and unsubstantiated assertion that the member in question explained as an expert in earlier times, when he was still a director in DG 2, that the jurisprudence of the Boards of Appeal in the field of CII would not be against the EPC and the law of the member states of the EPO cannot support an argument that this member or even the whole Enlarged Board in this case (G 3/08) should be excluded from dealing with the referral. Nor can such a conclusion be supported by the - actually incorrect - submission that the members of the present Enlarged Board are all members of the Boards of Appeal.

This is not an argument justifying the assumption that - deciding on the present referral - they are not solely bound by the provisions of the EPC.

- 2.4 According to established case law of the Boards of Appeal, of the Enlarged Board and also of national courts of member states, the mere fact that a board member has expressed a view on the legal issue to be decided on a previous occasion, be it in a prior decision or in literature, be it in a prior position in the EPO or as an expert for external political institutions, cannot lead to the conclusion of doubts as to impartiality. Nor does a purely subjective impression that the opinions of a board member might be disadvantageous to a particular interest justify an exclusion (see T 954/98, point 2.4 of the Reasons; see also J 15/04; see further Interlocutory decision of 7 December 2006 in case G 1/05, point 20 of the Reasons; confirmed in G 2/08, *supra*, point 4.2 of the Reasons; [2002] EWCA Civ 90, [2003] QB 528 - Taylor v. Lawrence; [2003] UKHL 35, [2003] ICR 856 - Lawal v. Northern Spirit Ltd.; Locabail (UK) Ltd. v. Bayfield Properties Ltd.; Rappel de la portée des stipulations de l'article 6 de la Convention européenne des droits de l'homme et des libertés fondamentales, JurisClasseur Justice Administrative, Fasc 70-11; Baumbach/Lauterbach, Zivilprozessordnung, Vol. 1, 67th Edition, 2009, § 42 Margin 44, 45, 57; Zöllner, Zivilprozessordnung, 27th Edition, 2009 § 42 Margin 26, 33; Fasching, Lehrbuch des österreichischen Zivilprozessrechts, 2nd Edition, 1990, Margin 154; Fasching, Kommentar zu den Zivilprozessgesetzen, Vol. 1, 2nd Edition, 2000, § 19 Jurisdiktionsnorm Margin 10).

- 2.5 Once lawfully appointed, a judge is deemed to act in good faith and is therefore presumed impartial until proven otherwise (see interlocutory decision in G 2/08, point 3.2 with further remarks). Moreover the parties to judicial proceedings have a right to have their case considered and decided by lawfully appointed judges. Such judges not only have the right to be member of a Board but also have the duty to decide in the cases allocated to them. They can neither withdraw at will from the proceedings, nor be objected to, at will, by a party to the proceedings, or by any other person. On the other hand they have to withdraw from a case in which their impartiality could be reasonably doubted (see interlocutory decision in case G 2/08). E.g. there might indeed exist an issue of partiality if a judge let it be known that he would never change his mind on certain questions on which he has given his opinion before. However, in the present case there is no indication whatsoever that this might be so.
3. Therefore, this Board sees no reason to exclude Mr Rees from its composition in case G 3/08 or to replace further members.

Order

For these reasons it is decided that:

1. The request of Mr Schultz is rejected as inadmissible.
2. The composition of the Enlarged Board of Appeal in case G 3/08 remains unchanged.

The Registrar:

The Chairman:

P. Martorana

P. Messerli

European Patent Office | 80298 MUNICH | GERMANY

The President
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Ms Alison Brimelow

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Enlarged Board of Appeal

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12.05.2010

**Referral under Article 112(1)(b) EPC
G 3/08**

Dear Ms Brimelow,

Please find enclosed a certified copy of the opinion of the Enlarged Board of Appeal,
dated 12 May 2010.

Yours sincerely,



P. Messerli

European Patent Office
Erhardtstr. 27
80469 Munich
Germany

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O P I N I O N
of 12 May 2010

Case Number: G 0003/08

Headword:

Programs for computers

Relevant legal provisions:**Vienna Convention on the Law of Treaties**

Art. 31

EPC (1973)

Art. 52(1)

EPC (2000)

Art. 4(2), (3), 10 ff., 15, 21-23, 24(4), 31, 52, 56,
112(1), 112a, 123(3), 177(1)

RPEBA

Art. 4(1), 10

RPBA

Art. 20(1)

Decisions cited:

G 0005/83, G 0002/88, G 0006/95, G 0003/93, G 0003/98,
G 0004/98, G 0002/02, G 0003/02, G 0001/07, G 0002/08,
T 0208/84, T 0163/85, T 0026/86, T 0038/86, T 0833/91,
T 0769/92, T 0204/93, T 0190/94, T 0377/95, T 0931/95,
T 1173/97, T 1177/97, T 0641/00, T 0125/01, T 0914/02,
T 1193/02, T 0172/03, T 0190/03, T 0258/03, T 0424/03,
T 0154/04, T 0471/05, T 0116/06

EWCA [2006] Civ 1371 - Aerotel/Macrossan

Paris Tribunal de grande instance on case 2001/11641 dated 11 November 2007, PIBD No. 867 III p. 59 - Infomil

EWCA [2008] Civ 1066 - Symbian Limited

Tenth Civil Senate of Germany's Federal Court of Justice of 20 January 2009 in GRUR 2009, 479 - Steuerungseinrichtung für Untersuchungsmodalitäten

US Court of Appeal for the Federal Circuit of 10 October 2008, 2007 - 1130 in re Bilski

Headnotes:

1. In exercising his or her right of referral a President of the EPO is entitled to make full use of the discretion granted by Article 112 (1) (b) EPC, even if his or her appreciation of the need for a referral has changed after a relatively short time.

2. Different decisions by a single Technical Board of Appeal in differing compositions may be the basis of an admissible referral by the President of the EPO of a point of law to the Enlarged Board of Appeal pursuant to Article 112 (1) (b) EPC.

3. As the wording of Article 112 (1) (b) EPC is not clear with respect to the meaning of "different/abweichende/divergent" decisions the provision has to be interpreted in the light of its object and purpose according to Article 31 of the Vienna Convention on the Law of Treaties (VCLT). The purpose of the referral right under 112 (1) (b) EPC is to establish uniformity of law within the European patent system. Having regard to this purpose of the presidential right to refer legal questions to the Enlarged Board of Appeal the notion "different decisions" has to be understood restrictively in the sense of "conflicting decisions".

4. The notion of legal development is an additional factor which must be carefully considered when interpreting the notion of "different decision" in Article 112 (1) (b) EPC. Development of the law is an essential aspect of its application, whatever method of interpretation is applied, and is therefore inherent in all judicial activity. Consequently, legal development as such cannot on its own form the basis for a referral, only because case law in new legal and/or technical fields does not always develop in linear fashion, and earlier approaches may be abandoned or modified.

5. Legal rulings are characterised not by their verdicts, but by their grounds. The Enlarged Board of Appeal may thus

take *obiter dicta* into account in examining whether two decisions satisfy the requirements of Article 112 (1) (b) EPC.

6. T 424/03, Microsoft does deviate from a view expressed in T 1173/97, IBM, concerning whether a claim to a program on a computer-readable medium necessarily avoids exclusion from patentability under Article 52(2) EPC. However this is a legitimate development of the case law and there is no divergence which would make the referral of this point to the Enlarged Board of Appeal by the President admissible.

7. The Enlarged Board of Appeal cannot identify any other inconsistencies between the grounds of the decisions which the referral by the President alleges are divergent. The referral is therefore inadmissible under Article 112(1)(b) EPC.

Case Number: G 0003/08

O P I N I O N
of the Enlarged Board of Appeal
of 12 May 2010

in relation to a point of law referred by
the President of the European Patent Office
pursuant to Article 112(1)(b) EPC

Composition of the Board:

Chairman: P. Messerli
Members: M. Vogel
D. Rees
M. Dorn
A. Klein
U. Scharen
J.-P. Seitz

Summary of the proceedings

- I. In a referral under Article 112(1)(b) EPC dated 22 October 2008, the President of the EPO asked the Enlarged Board of Appeal to consider a set of questions concerning the patentability of programs for computers (computer-implemented inventions, CIIs) on which she deemed the Boards of Appeal to have given different decisions and which she held to be of fundamental importance within the meaning of Article 112(1) EPC. Her referral had been preceded by an informal letter from her predecessor, Alain Pompidou, dated 22 February 2007, in which Lord Justice Jacob's suggestion in the *Aerotel/Macrossan* judgment of 27 October 2006 ([2006] EWCA Civ 1371) of referring the issue of CII patentability to the Enlarged Board was dismissed as unnecessary.
- II. Statements by third parties (*amicus curiae* briefs)
- II.1 Under Article 10 of its Rules of Procedure, the Enlarged Board invited the public to file written statements on the President's referral (OJ EPO 2009, 32). This resulted in the filing of around a hundred *amicus curiae* briefs, which can be viewed in the Enlarged Board's area of the EPO website. These can be broken down roughly as follows:
- 30 originated from lawyers and patent attorneys or associations thereof; of these 15 were individual contributions;
 - 54 came from companies, industry associations and other interest groups; of these 17 apparently had Free

and Open Source Software (FOSS) affiliations, and a further 9 identified themselves as individual developers (the responses of the latter were so similar to those of the FOSS-affiliated that they will be grouped together with the FOSS responses in what follows);

- 6 were from academia;

- 2 were from patent offices;

- 9 were from other sources; of these 6 were from individuals.

II.2 The question of the admissibility of the referral was raised in approximately a quarter of the submissions, mainly by lawyers or non-FOSS industry. Of these the great majority either expressed "doubts" about the admissibility or argued that the referral was definitely not admissible.

Three quarters of the submissions gave responses to some or all of the individual questions of the referral. However in many if not most cases these responses took the form of comments or observations, rather than answers classifiable as "yes" or "no". For this reason the Enlarged Board will not attempt to present a statistical analysis of the responses to the questions.

Around one third of all of the submissions made an analysis of the case law of the Boards of Appeal of the EPO. Most of the rest relied on either national (including US) case law, gave their views on how the

EPC ought to be interpreted, or made general statements based on policy considerations.

II.3 Many of the submissions took the opportunity to express their views on whether "software patents" were a good or bad thing. Around one third, including all the FOSS-affiliated companies and groups as well as the individual developers, considered that granting practice should be (generally very much) more restricted than it is now, around 30% appeared to be arguing for roughly the same conditions for grant as at present and about 10% argued for wider patentability. Approximately 30% of the submissions made comments explicitly or implicitly expressing approval of the present general case law of the Boards of Appeal with regard to computer-implemented inventions. Perhaps surprisingly there was very little correlation between this 30% and the submissions which argued that the referral was inadmissible.

II.4 One of the *amici curiae* argued that the Enlarged Board, and more specifically one of its members, was not impartial. The Board applied Article 4(1) of the Rules of Procedure of the Enlarged Board of Appeal and Article 24(4) EPC. In a composition not including the affected member the Enlarged Board deliberated and issued an interlocutory decision dated 16 October 2009 that the original composition was to remain unchanged.

Reasons for the Opinion

Admissibility of the referral

1. Under Article 112(1)(b) EPC, in order to ensure uniform application of the law, or if a point of law of fundamental importance arises, the President of the EPO may refer a point of law to the Enlarged Board of Appeal where two Boards of Appeal have given different decisions on that question.

2. The first issue the present case raises is whether the President's referral might be inadmissible on the grounds that her predecessor had declined to refer CII patentability issues to the Enlarged Board only the year before, in his letter of 22 February 2007 to Lord Justice Jacob. In other words, if no further decisions throwing new light on the issues had been taken in the interim, the question arises whether the presidential right of referral might have been forfeited.

However, in exercising his right of referral, a President is entitled to make full use of the discretion that he (or she) is granted by Article 112(1)(b) EPC. His appreciation of the need for a referral may change even after a relatively short time, for example because his assessment of the case law of the Boards of Appeal has changed and he therefore finds the implications of a perceived divergence more significant for Office practice than he initially thought. Or, as is the case here, a change in the presidency has taken place and the new President views matters differently from his

predecessor. Therefore, in the present case the right of referral cannot be held to have been lost.

3. Hence the Enlarged Board is required to consider whether the questions raised in the referral of 22 October 2008 were admissibly referred under Article 112(1)(b) EPC because

- (i) they need to be answered in order to ensure uniform application of the law or they concern points of law of fundamental importance

and

- (ii) two Boards of Appeal have given different decisions on the questions referred.

4. As regards the first admissibility criterion, which must be met for every referral whether from a Board of Appeal under Article 112(1)(a) EPC or from the President under Article 112(1)(b) EPC, the President maintains that the referral concerns the application of the exclusion of computer programs as such and is therefore of fundamental importance.

- 4.1 CII patentability has of course long been the subject of heated debate in administrative and judicial practice and literature in countries with advanced patent systems, in particular within EPC territory. In these countries, with their national rules on patentable subject-matter, although widely harmonised on an European basis, this problem has given rise not so much to different court verdicts but to sometimes different reasoning for them. Moreover, some years ago

the European Parliament and Council made an ultimately unsuccessful attempt to harmonise law on CII patentability within the EU by means of a directive (COM (2002) 92 final - 2002/0047 (COD)). A uniform understanding of where to draw the dividing line between applications relating to programs for computers as such, which are excluded from patentability under Articles 52(2)(c) and (3) EPC, and applications relating to patentable technical solutions, in the form of CIIs, still cannot be assumed despite considerable convergence in recent court rulings.

(See however the increasingly convergent decisions of EPO Technical Board of Appeal 3.5.01 of 15 November 2006 on T 154/04 - Duns Licensing; the Paris Tribunal de grande instance on case 2001/11641, PIBD No. 867 III p. 59 - Infomil (on the patent in that case see also Technical Board 3.5.01's decision of 22 October 2008 on T 116/06, which dismissed the proprietor's appeal against the opposition division's revocation of the patent); EWCA judgment of 8 October 2008, Civ 1066 - Symbian Limited; Order of the Tenth Civil Senate of Germany's Federal Court of Justice of 20 January 2009 in GRUR 2009, 479 - Steuerungseinrichtung für Untersuchungsmodalitäten; and in the USA, US Court of Appeal for the Federal Circuit of 10 October 2008, 2007 - 1130 in re Bilski)

- 4.2 Given the economic significance of such inventions in many technical fields, plus the consequent heated public debate on their patentability and the many cases before the EPO's Technical Boards and various national courts, the fundamental importance of the general subject addressed by the questions referred is not open to serious doubt.

5. Of course, the fact that there is such a worldwide debate does not mean that there have necessarily been different decisions taken by two Boards of Appeal within the meaning of Article 112(1)(b) EPC. It is clear from the wording of that article that decisions of other (national) courts are not relevant when examining the admissibility of a referral. Such courts are not part of the European Patent Organisation, and there is nothing in the EPC to make their decisions binding on the Office.

6. As to what is meant by different decisions of two EPO Boards of Appeal, this may depend on whether, as in the present case, the decisions cited as the basis for the referral were taken within the competence of a single Board of Appeal in differing compositions. It might be thought, not unreasonably, that this does not comply with the wording of Article 112(1)(b) EPC, which would make the admissibility of a presidential referral dependent on differences in the rulings of two Boards of Appeal.

On this question the Enlarged Board in G 4/98 (OJ EPO 2001, 131) offered the following comments on different decisions of the Legal Board of Appeal:

As stated at the beginning of Article 112 EPC, one of the purposes of a referral to the Enlarged Board of Appeal is to ensure uniform application of the law. This is particularly true for the referral by the President of the EPO under Article 112(1)(b) EPC, which is dependent upon the existence of conflicting decisions. If his power of referral were to be defined by a restrictive reading of the term "two Boards of Appeal" based on organisational structure, then no referrals would be possible with respect to the Legal Board of Appeal, which is one organisational unit only. This would

unduly restrict the effect of Article 112 EPC, since it is quite clear that conflicting decisions might also occur in cases within the competence of that board, which as an organisational unit comprises all legally qualified members of the Boards of Appeal (with the exception of the legally qualified chairmen of the Technical Boards of Appeal) and which therefore sits in a number of different compositions. In this context, it is noteworthy that the EPC does not define the Legal Board of Appeal as an organisational unit, but only by its composition, which lends additional strength to the argument that different decisions of that board may be the basis of a referral by the President of the EPO, at least if taken in different compositions. As this is the case here, there is no need to discuss whether a referral by the President of the EPO would also be admissible had the Legal Board of Appeal handed down different decisions in the same composition. Likewise, no opinion is to be expressed on the admissibility of a referral, had the present situation arisen not in the Legal Board of Appeal but in one of the Technical Boards of Appeal. Finally, no discussion is necessary on the limitation of the power of referral by the President of the EPO by the power of the Legal Board of Appeal to develop its case law by abandoning former case law (cf. Singer/Stauder, loc. cit.). In the present case, there is no evidence at all that this was intended by J 22/95. On the contrary, in point 7.2 of the Reasons, it is stated that there "are no conflicting decisions relevant to this case ..." (Reasons, point 1.2, second paragraph).

In this opinion the Enlarged Board did not need to express a view on the admissibility of a referral based on differing decisions by a single Technical Board, the relevant issue in the present case. However, the same reasons as are given in G 4/98 to justify the admissibility of a referral in the case of differing decisions by the Legal Board can also be used. This is in particular so since the object and purpose of a referral by the President is to ensure the uniform application of the law within the

Organisation in the interest of legal certainty. Lack of uniform application which warrants a referral may also happen within a single Board as an organisational unit, no matter whether legal or technical, and therefore no distinction should be made between the Legal Board of Appeal (case G 4/98) and a Technical Board of Appeal. It would be too limiting to declare a referral by the President inadmissible simply because the formal requirement that two Boards of Appeal must be involved has not been fulfilled. At least this holds true when, as is the case here, the Board of Appeal has delivered the allegedly different decisions in different compositions (see also *Joos* in: *Singer/Stauder*, The European Patent Convention, 5th edition, 2010, Article 112 marginal number 25). The question what the situation would be had the Board of Appeal delivered the allegedly different decisions in the same composition needs not to be answered here. Of course, to hold the referral admissible in respect of who delivered the allegedly different decisions does not mean that it has passed the admissibility test altogether. For this, it is necessary that the Board in question has indeed given "different decisions" within the meaning of Article 112(1)(b) EPC. This will be examined below.

7. The key to assessing the referral's admissibility is determining the meaning to be assigned to the undefined legal term "different decisions" / "abweichende Entscheidungen" / "décisions divergentes" in Article 112(1)(b) EPC. Do decisions differ if for example they come to the same verdict on different grounds? What about two decisions that are far apart in time? In such cases, does a Technical Board clearly

stand by earlier case law cited in support of a difference, or has it explicitly or implicitly abandoned it in the meantime? What if the claimed differences are the result of long-term legal developments affecting the patentability assessment of new subject-matter? How do different decisions relate to other case law of the Boards?

- 7.1 The meaning to be assigned to the key term "different decisions" as this expression is used in Article 112(1)(b) EPC must initially be determined on the basis of the provision's wording in all official versions of the EPC, these all having equal status (Article 177(1) EPC). Yet the wording does not seem to give a clear answer. The English, German and French terms used ("different", "abweichend" and "divergent" respectively) do not appear to have entirely the same connotations. *Cassell's English-German Dictionary*, 1978 edition, translates "different" with German words such as "anders, verschieden, andersartig, abweichend, ungleich, verschiedenartig", whereas according to *Harrap's Shorter Dictionary French-English* (1988 Reprint) the French term "divergent" equates to "divergent" in English, not "different", and in German is according to *Larousse Grand Dictionnaire Allemand-Français*, 1999 edition, equivalent to terms like "divergierend, auseinanderlaufend, abweichend". This results in variations in semantic content (abweichend/different/divergent) between the three language versions. "Different decisions" could apparently be ones that are far apart in time, regardless of whether they actually still have a claim to validity in view of intervening changes in case law. "Divergent decisions" by contrast would suggest ones

which do not take the same line, which in other words vary in their substantive content, while being close together in time. Thus a clear answer cannot be derived from the wording of the provision alone.

7.2 Ambiguous wording in international treaties, including industrial property conventions, has to be interpreted in the light of its object and purpose (Article 31 of the Vienna Convention on the Law of Treaties (VCLT) whose rules for the interpretation of treaties are to be applied to the EPC (see G 5/83, OJ EPO 1985, 064, Reasons, point 3 ff.; G 2/02 and 3/02, OJ EPO 2004, 483, Reasons, point 5.2 ff.; G 1/07 dated 15 February 2010, Reasons, point 3.1; G 2/08 dated 19 February 2010, Reasons, point 4)), and if we consider the object and purpose of Article 112(1)(b) EPC in the context of the EPC, there is much to suggest that it means divergent decisions in the second sense mentioned in paragraph (a) above (on the Enlarged Board's approach to interpretation see *Schachenmann*, *Die Methoden der Rechtsfindung der Großen Beschwerdekammer*, GRUR Int. 2008, 702/704 ff.; *Stauder* in: *Singer/Stauder*, *Europäisches Patentübereinkommen*, 5th edition, 2010, Art. 177 *passim* with further indications).

7.2.1 According to current constitutional thinking, the predictability and verifiability of all state action are indispensable elements of a democratic legal order based on the separation of powers, the rule of law and respect for human rights including fundamental procedural rights. These principles have been subscribed to in substance at national level by all the EPC contracting states, despite differing

constitutional traditions and despite several reservations made by different states. As a democracy is prohibited from signing an international treaty which would undermine its citizens' constitutional guarantees, the EPO must therefore support these fundamental principles either explicitly (e.g. Art. 113 EPC) or implicitly (e.g. liberty, equality) (see for example G 3/98, OJ EPO 2001, 62, Reasons, point 2.5.3; G 2/02 and G 3/02, Reasons, point 7.2; T 377/95, OJ EPO 1999, 11, Reasons, points 33-36; T 1193/02 dated 18 March 2005, Reasons, point 10; T 190/03, OJ EPO 2006, 502, Reasons, point 10).

The European Patent Organisation is an international, intergovernmental organisation, modelled on a modern state order and based on the separation of powers principle, which the sovereign contracting states have entrusted with the exercise of some of their national powers in the field of patents. Thus the EPC assigns executive power to the Office to grant patents and to its President to manage the Office in organisational respects (Articles 4(3) and 10 ff. EPC), while to the Administrative Council it assigns limited legislative powers restricted to lower-ranking rules (Article 33 EPC), along with financial and supervisory powers. Finally, the Boards of Appeal, which in their decisions are bound only by the EPC (Article 23(3) EPC), are assigned the role of an independent judiciary in this patent system (Articles 21 to 23 EPC; see also G 6/95, OJ EPO 1996, 649, Reasons, points 2 ff.), even if for the present, pursuant to Article 4(2) EPC and to EPC Part 1 Chapter III, they are not an independent organ of the Organisation but

structurally integrated departments of the Office under Article 15 EPC.

- 7.2.2 Like the judiciary of any democratic entity based on the separation of powers principle, the EPO's Boards of Appeal as an independent judiciary guarantee the due process of law within the Organisation. They are also assigned interpretative supremacy with regard to the EPC in terms of its scope of application (see also Article 23(3) EPC). Under Article 21(1) EPC they are responsible for reviewing decisions taken by the Office in grant and opposition proceedings. Their interpretation of the EPC is the basis for the practice established by the Office for the examination of patent applications and oppositions to granted patents. Otherwise there would be no need for the President's right of referral.

On the other hand, the interpretation of the EPC or equivalent national regulations by the courts of the Contracting States has no direct consequences for Office departments; but that does not mean that in interpreting the Convention the Boards of Appeal should not take account of relevant national decisions on harmonised European patent law, in keeping with normal practice. This is implied by the harmonisation philosophy behind the EPC.

- 7.2.3 Another essential element of a democratic legal order is the principle that a public authority is bound by law and justice. This is supplemented by the principle of uniform application of the law. Both principles are designed to ensure predictability of jurisdiction and hence legal certainty by preventing arbitrariness.

Those subject to the law, in the case of the EPC the parties to proceedings before the Office, but also the public, must be able to expect that the Office as patent granting authority and consequently the Boards of Appeal will settle cases of the same nature in the same way and will apply comprehensible arguments and methods to justify any substantive differences in such decisions. For the stated reasons, these principles also constitute essential precepts for administration and jurisdiction in the European patent system as codified in the EPC. Ensuring compliance with them is ultimately the task of the Boards of Appeal, including the Enlarged Board, the latter though only in the context of referrals by the Boards of Appeal and the President under Article 112(1) EPC and concerning petitions for review (Article 112a EPC).

- 7.2.4 In keeping with these principles, Article 112 EPC - like corresponding provisions in the legal orders of the Contracting States - defines the conditions in which legal uniformity within the European patent system may be established by means of a referral to the Enlarged Board of Appeal. It requires the Boards (Article 112(1)(a) EPC) or the President (Article 112(1)(b) EPC) to deem the referral necessary in order to ensure uniform application of the law or if points of law of fundamental importance arise, and a further admissibility criterion for a referral by the President is that two Boards of Appeal must have given different decisions on the question referred. Hence the Enlarged Board does not rule on abstract points of law, but only ever on real issues arising from the cited differing decisions, as well as on specific legal questions adduced in the referral (see

Moser in: *Europäisches Patentübereinkommen, Münchner Gemeinschaftskommentar*, 20th issue 1997, Article 112, marginal number 28; *van Empel*, *The Granting of European Patents*, 1975, marginal number 524). It is to be noticed that the President is not a party in a referral procedure because she or he can not be adversely affected by answers given by the Enlarged Board.

7.2.5 Thus it is clear that the interpretation of the EPC is primarily the responsibility of the Boards of Appeal. As a rule they have interpretative supremacy with regard to the EPC because their decisions are subject to review only under the narrowly defined conditions of Article 112(1) and 112a(2) EPC. It is only when these apply that the Enlarged Board has the last word. The fact that the Enlarged Board takes action only on a referral from the Boards of Appeal or the President (with the exception of petitions for review under Article 112a EPC, which however concern procedural matters and have a very narrow scope) and thus does not constitute a further instance ranking above the Boards of Appeal within the EPC judicial system is a clear indication of the extent of its significance for legal uniformity. The exhaustive list of admissibility criteria for a referral under Articles 112(1)(a) and (b) EPC implies that the Enlarged Board takes decisions on specific legal questions and that neither the Boards of Appeal nor the President are authorised to consult it whenever they so wish in order to clarify abstract points of law. For that purpose the President can call upon a separate Legal Department within the Office.

7.2.6 On the same restrictive grounds, Article 112(1)(b) EPC as an additional constraint for a referral by the President as opposed to one by a Board of Appeal requires there to be differences in the rulings of two Boards of Appeal (in the sense already discussed) on a point of law. The "different decisions" criterion would appear to show that the President is only intended to be allowed to refer a question to the Enlarged Board when there is a divergence or, better, conflict in the case law making it difficult if not impossible for the Office to bring its patent granting practice into line with the case law of the Boards of Appeal. It is of course immaterial whether the initiative behind the referral comes from a third party, as long as there is objective evidence of divergent applications of the law.

7.2.7 Given its object and purpose, the right of referral does not extend to allowing the President, for whatever reason, to use an Enlarged Board referral as a means of replacing Board of Appeal rulings on CII patentability with the decision of a putatively higher instance. For example, a presidential referral is not admissible merely because the European Parliament and Council have failed to adopt a directive on CII patenting or because consistent Board rulings are called into question by a vocal lobby (cf. the present referral, page 2, Section 1, paragraph 3). Even the essentially commendable desire for harmonisation expressed by Lord Justice Jacob in the *Aerotel/Macrossan* judgment can be taken up by the Enlarged Board only to the extent possible under the EPC, even if his suggestion might significantly advance the cause of legal uniformity in Europe. When

judiciary-driven legal development meets its limits, it is time for the legislator to take over.

7.3 The notion of legal development is an additional factor which must be carefully considered when interpreting the notion of "different decisions" in Article 112(1)(b) EPC, as has occasionally been pointed out in the literature (e.g. *Teschmacher*, *Der Beitrag des Präsidenten des Europäischen Patentamts zur Rechtsprechung der Großen Beschwerdekammer - eine erste Bestandsaufnahme*, GRUR 1993, 320/326 f.) and various *amicus curiae* briefs.

7.3.1 Development of the law is an essential aspect of its application, whatever method of interpretation the judge applies, and is therefore inherent in all judicial activity. In that light an element of legal development can even be seen whenever a specific case is subsumed under an abstract regulation. That is especially true of Anglo-Saxon law, where a decision on an individual case has far greater implications as a precedent than judgments in continental civil law. Consequently, legal development as such cannot on its own form the basis for a referral, only because case law in new legal territory does not always develop in linear fashion, and earlier approaches may be abandoned or modified.

Otherwise the "different decisions" feature of Article 112(1)(b) EPC would lose its meaning. While the development of the law may superficially appear to give rise to different decisions within the meaning of that provision, on its own it cannot justify a referral to the Enlarged Board. A referral is

justified only if at least two Board of Appeal decisions come into conflict with the principle of legal uniformity. The object and purpose of Article 112(1)(b) EPC is to have an Enlarged Board decision re-establish legal uniformity when it has clearly been disrupted, not to intervene in legal development. This is discussed in more detail in the following.

7.3.2 The EPC as it stands assigns interpretation of the EPC with its numerous undefined legal terms ultimately to the Boards of Appeal (see point 7.2.5 above). They are responsible for defining how the law is to be applied and where appropriate adapted to developments in patent law. To a greater or lesser extent the issue in every case is whether or not the situation is covered by an abstractly formulated regulation. Thus over time case law has given e.g. the notions of invention, novelty, inventive step and industrial applicability increasingly precise meanings with which the Office and other patent system stakeholders can align themselves in their daily practice. Hence in view of the direction that patent law has taken by means of the Boards' case law, appeals against decisions of the Examining and Opposition Divisions mostly operate within legally secure bounds.

7.3.3 Particularly in the field of new technologies, the Technical Boards often have to subject their established case law to critical review, applying accepted judicial procedure and general legal principles to decide whether the often broadly formulated undefined legal terms in the EPC are applicable to the specific nature of the new field,

i.e. in particular whether the existing widely accepted case law also yields acceptable solutions in the new field. It is entirely conceivable that the interpretation of undefined legal terms in the light of the EPC's purpose and principles will necessitate drawing further distinctions which, depending on what they include or exclude, may determine whether a patent is granted or refused in a specific case.

7.3.4 Where jurisprudence enters new legal territory, caution is required to avoid making statements that will prove untenable in the very next case to arise. Yet it cannot be ruled out that repeated amendments will be necessary in the course of time if legal solutions that the Boards initially deem correct prove to be mistaken in new situations and cease to be convincing jurisprudence. Such changes of direction in legal development are a normal part of judicial activity, and there is no need to speak of different decisions within the meaning of Article 112(1)(b) EPC simply because departures from earlier practice are deemed necessary when homing in on the right solution to a specific case (see however *Moufang* in: *Schulte*, Patentgesetz mit EPÜ, 8th edition 2008, Article 112 EPC (annex to paragraph 73) marginal number 42).

7.3.5 Thus even a radical shift in jurisprudence need not necessarily be construed as a different decision within the meaning of Article 112(1)(b) EPC vis-à-vis earlier case law, provided that the Board corrects itself and - mostly in explicit fashion - declares its earlier practice to be no longer relevant. The President does not acquire the right of referral simply because he prefers the earlier decision (*Joos*

in: *Singer/Stauder*, Europäisches Patentübereinkommen, 5th edition 2010, Article 112, marginal number 25; see however *Moufang* in: *Schulte*, Patentgesetz mit EPÜ, 8th edition 2008, Article 112 EPC (annex to paragraph 73) marginal number 42). Such corrections are a normal part of the application and development of the law and do not constitute a difference that could be corrected by means of a presidential referral to the Enlarged Board, overriding the interpretative power of the Boards. In fact, shifts of this kind when identified as such leave the Office as patent granting authority in no doubt how the EPC is to be interpreted according to the Boards' latest findings. This may entail altering the Examination Guidelines, but not having the case law reviewed by the Enlarged Board. It is another matter if the Boards themselves see a need to refer points of law to the Enlarged Board in the light of a change in their practice.

7.3.6 The same should apply where the Boards' case law has developed over an extended period and in the course of several decisions has gradually arrived at solutions which clearly and justifiably move away from the initial premise, even if the public and the patent granting authority have found earlier solutions acceptable. In that way, too, legal development has followed a course which, while not entirely linear, as long as it is transparent does not justify speaking of different decisions that could be grounds for a referral.

7.3.7 Legal rulings are characterised not by their verdicts, but by their grounds. That is the only way of assessing the courts' opinion, and the ability to

assess that is in turn the key to legal certainty. The Enlarged Board has already taken this line in its decision G 3/93 (OJ EPO 1995, 18, Reasons, point 2), where it took *obiter dicta* into account in examining a divergence (likewise *Moufang* in *Schulte*, Patentgesetz mit EPÜ, Article 112 EPC (annex to paragraph 73) marginal number 45).

7.3.8 The conclusion that must be drawn is that the Enlarged Board cannot develop the law in the same way as the Boards of Appeal, because it does not have to decide on facts of pending appeals, but only in specific instances and only in the aforementioned context of points of law referred to it under Article 112(1) EPC. This applies *a fortiori* to referrals by the President, which do not even arise from a specific appeal.

If, as required for a referral by the President, there are different decisions on points of law, the Enlarged Board may follow the legal approach of one of the decisions and reject the other as inappropriate, or it may find a third way appropriate. Thus the only way it can influence the assessment of individual issues is by breaking with previous practice and pointing in a new direction or by confirming the approach adopted by a Board.

In the process however the Enlarged Board must also consider whether the divergent decisions might not be part of a constant development, possibly still ongoing, in jurisprudence on recent patent law issues, in the course of which older decisions have lost their significance and so can no longer be considered in connection with newer decisions. Such putative

differences do not justify presidential referrals, legal development being one of the principal duties of the Boards of Appeal, in particular in new territory.

Hence the President has no right of referral under Article 112(1)(b) EPC simply in order to intervene, on whatever grounds, in mere legal development if on an interpretation of the notion of "different decisions" in the sense of conflicting decisions there is no need for correction to establish legal certainty.

The Questions of the Referral

8. In the light of these fundamental considerations on the interpretation of Article 112(1)(b) EPC, the questions that have been referred will now be considered.

9. Preliminary remarks

9.1 On the introduction to the referral

The referral (page 3) includes a definition of "computer program" ("a series of steps (instructions) which will be carried out by the computer when the program is executed"). "Computer program" is said to be synonymous with "program", "software" and "program for a computer". The term "computer" is defined to include "any programmable apparatus", including e.g. a mobile phone. It is further clarified that "the methods referred to in hypothetical examples are intended to be methods which can be implemented wholly by computer."

While these definitions may be helpful for the Enlarged Board in interpreting the referral, it should be made clear that the Board cannot be bound by them when it interprets the case law. The meaning of these terms in patents and appeal cases must rather be determined by an analysis of how the skilled addressee would have understood them in the context in which they were used.

It should be pointed out that if "computers" include mobile phones, and the hypothetical methods are meant to be those which can be implemented wholly by computer, they would include for example methods of generating radio carrier waves using particular analogue circuits. This was probably not intended to be included in the definition of a "computer implemented method" by the referral.

9.2 The term "technical"

We do not attempt to define the term "technical". Apart from using this term in citing the case law, in what follows the Enlarged Board only makes the assertions that "a computer-readable data storage medium" and a cup have technical character and that designing a bicycle involves technical considerations, in order to be able to explore the consequences of that case law. It is to be hoped that readers will accept these assertions without requiring a definition of exactly what falls within the boundaries of "technical". This question is discussed in some more detail for the particular case of programs for computers in the section relating to Question 4 (see point 13 below).

10. **Question 1**

"Can a computer program only be excluded as a computer program as such if it is explicitly claimed as a computer program?"

Admissibility

10.1 The first step is interpretation of the question. On the face of it all that is asked is whether one has to use the actual words "computer program". If the question is interpreted in this fashion it is easily answered; a claim utilising a synonym for "computer program", such as "a sequence of computer-executable instructions" or "an executable software module" perhaps, would clearly not avoid exclusion from patentability if the equivalent claim to a computer program did not. However the alleged divergence identified in the referral does not simply relate to the form of words chosen. Moreover the "Background" to Question 1 includes the following:

"In this field, claim formulations along the following lines are common:

- methods
- systems (i.e. computer systems)
- computer-implemented methods
- computer programs
- computer program products, storing a computer program.

However the substance of these claims, i.e. the underlying method to be performed by a computer, is often identical," (referral, page 4).

The discussion also refers to "the function of the computer program (does the claimed program have technical character) rather than the manner in which it is claimed (e.g. as a computer program, a computer program product or a computer-implemented method)," (referral, page 5).

Thus it would seem that the first reference to a "computer program" in the question is in fact intended to encompass claims to various matters which involve a computer program without necessarily literally being one, and that the question to which the referral is seeking an answer is something along the lines of:

If a particular claim to a computer program ("1. A program for a computer comprising instructions to carry out steps x, y, z,") is excluded from patentability by Article 52(2) EPC, are any of the following (or anything else) automatically excluded under the same article?

"2. A computer system loaded with the program of claim 1."

"3. A method of operating a computer comprising executing the program of claim 1."

"4. A computer program product storing the program of claim 1."

10.2 The only "divergence" in the case law identified by the referral with respect to this question is between

the decisions in cases T 1173/97, IBM (OJ EPO 1999, 609) and T 424/03, Microsoft, dated 23 February 2006. It is argued in the referral (see pages 5 and 6) that according to T 424/03 only a claim of the form "computer program for method x" could possibly be excluded from patentability as a computer program as such, whereas claims of the form "computer implemented method x" or "computer program product storing executable code for method x" would not be excluded (irrespective of the nature of the method x). T 1173/97 is said however to place the emphasis on the function of the computer program rather than on the manner in which it is claimed, for example as a computer program product or a computer-implemented method.

T 1173/97 concerned an application where the examining division had come to the conclusion that there was an invention and was prepared to grant a patent including claims of the types which had been accepted at least since T 208/84, VICOM (OJ EPO 1987, 14), namely for a method of operating a computer and for a computer adapted to carry out the method (i.e. a computer loaded with an appropriate program). However the applicant had included claims directed not to the system as a whole or a method of operating the system as a whole, but to a program, in two forms, as follows (T 1173/97 Facts and Submissions, point II):

"A computer program product directly loadable into the internal memory of a digital computer, comprising software code portions for performing the steps of [independent method] claim 1 when said product is run on a computer,"

and

"A computer program product stored on a computer usable medium, comprising: computer readable program means for causing a computer to [carry out the various steps of method claim 1]."

10.2.1 The Board considered the question whether a computer program might be claimed and if so under what circumstances such a claim could be allowable. Its conclusion, at Reasons, point 13, was:

"In the view of the Board, a computer program claimed by itself is not excluded from patentability if the program, when running on a computer or loaded into a computer, brings about, or is capable of bringing about, a technical effect which goes beyond the 'normal' physical interactions between the program (software) and the computer (hardware) on which it is run.

'Running on a computer' means that the system comprising the computer program plus the computer carries out a method (or process) which may be of the kind according to claim 1.

'Loaded into a computer' means that the computer programmed in this way is capable of or adapted to carrying out a method which may be of the kind according to claim 1 and thus constitutes a system (or device or apparatus) which may be of the kind according to claim 14."

10.2.2 The Board made a point of not deciding on a particular form of words; the Order includes, "The case is remitted to the first instance ... for examination of whether the wording of the present claims avoids exclusion from patentability under Article 52(2) and (3) EPC, ...". However it did comment on the question whether claiming the program on a medium could overcome exclusion (also at Reasons, point 13):

"Furthermore, the Board is of the opinion that with regard to the exclusions under Article 52(2) and (3) EPC, it does not make any difference whether a computer program is claimed by itself or as a record on a carrier"

10.2.3 Since the Board had come to the conclusion that some programs, claimed alone, are excluded from patentability, it must follow from this statement that such a program claimed "as a record on a carrier", i.e. on a computer-readable medium, would also be excluded. The reasoning supporting this conclusion can be seen in the following quotations.

T 1173/97, Reasons, point 5.3: "This means that programs for computers must be considered as patentable inventions when they have a technical character." Reasons, point 6.2: "[P]hysical modifications of the hardware (causing, for instance, electrical currents) deriving from the execution of the instructions given by programs for computers cannot *per se* constitute the technical character required for avoiding the exclusion of those programs." Reasons, point 6.3: "Although such modifications may be considered to be technical, they

... cannot be used to distinguish programs for computers with a technical character from programs for computers as such." The same evidently applies to the physical modifications of a medium (e.g. the pits created in a CD-ROM) caused by storing a program, and this would appear to be what the Board meant by Reasons, point 9.3: "[T]he hardware is not part of the invention. ... Furthermore, it is clear that if, for instance, the computer program product comprises a computer-readable medium on which the program is stored, this medium only constitutes the physical support on which the program is saved, and thus constitutes hardware."

10.2.4 Considering that according to Article 52(1) EPC (in both 1973 and 2000 versions), "European patents shall be granted for any inventions" provided they are new, inventive and industrially applicable, the reasoning in 9.3 that, (i) when a computer program product comprises a computer-readable medium, the medium constitutes hardware, and (ii) hardware is not part of the invention, makes it clear that the Board considered that a claim to a computer program product could not escape the exclusions of Article 52(2) EPC merely by comprising a computer-readable medium. Reasons, points 6.2 and 6.3 cited above at least suggest that the Board also considered that claiming a computer loaded with a program or the execution of a program on a computer would not be sufficient to escape the exclusion.

10.3 The decision also referred to the "technical effect which goes beyond the 'normal' physical interactions between the program (software) and the computer

(hardware) on which it is run" as a "further technical effect" (see Reasons, point 9.4), and this is the expression which is generally used. As may be seen from the quotations above, the general condition for a claimed invention not to be excluded from patentability by Articles 52(2) and (3) EPC was considered to be that the claimed subject-matter has a "technical character". Thus in the particular case of a claim to a computer program it has a "technical character" if and only if the program causes a "further technical effect" when run. (This topic will be revisited in the discussion of Question 4.)

- 10.4 It is notable that the definition of further technical effect in Reasons, point 13 makes no reference to the state of the art. Thus according to this decision it may be determined whether a claim to a computer program is excluded from patentability by Articles 52(2) and (3) EPC independent of the prior art. That is, the identified further technical effect need not be new. By taking this position the Board consciously abandoned the so-called "contribution approach" which had been applied, somewhat inconsistently, in the earlier case law. This was clearly a deliberate development of the case law (the inconsistency of the previous case law having previously been identified in an article, "Patentability of computer-software-related inventions", by the then chairman, *P. van den Berg*, in "The law and practice of the Enlarged Board of Appeal of the European Patent Office during its first ten years", issued by the members of the Enlarged Board of Appeal, 1996, pages 29 to 47). To our knowledge no decision of the Boards of Appeal has since challenged

this choice by the Board in T 1173/97. It therefore stands as the established case law, and cannot be overturned by this Opinion, for the reasons given above (see point 7).

10.5 T 1173/97 also drew the consequence from its abandonment of the "contribution approach" that, "Determining the technical contribution an invention achieves with respect to the prior art is therefore more appropriate for the purpose of examining novelty and inventive step than for deciding on possible exclusion under Article 52(2) and (3)," (Reasons, point 8, second paragraph).

10.6 For readers unfamiliar with the jargon, an analogy may help to understand the distinction between the "contribution approach" and the approach adopted by the Board in T 1173/97. Note, however, that what follows is intended to be merely illustrative, not definitive.

Suppose a patent application claims a cup carrying a certain picture (e.g. a company logo). We assume that no effect beyond information, "brand awareness" or aesthetic pleasure is ascribed to the picture. According to the "contribution approach", cups are known, so that the "contribution to the art" is only in a field excluded from patentability by Article 52(2) EPC and the application may be refused under this provision, i.e. the European patent application is considered to relate to (cf. Article 52(3) EPC) an aesthetic creation, a presentation of information or possibly even a method for doing business "as such".

According to the approach laid down by T 1173/97, for the purposes of Article 52(2) EPC the claimed subject-matter has to be considered without regard to the prior art. According to this view a claim to a cup is clearly not excluded from patentability by Article 52(2) EPC. Whether or not the claim also includes the feature that the cup has a certain picture on it is irrelevant. This approach, at least as formulated in e.g. T 258/03, Hitachi (OJ EPO 2004, 575) and T 424/03, has been characterised in some of the *amicus curiae* briefs as the "any hardware" or "any technical means" approach.

10.7 Over a series of decisions the Boards of Appeal (and in particular Board 3.5.01) explored this consequence of abandoning the contribution approach. Firstly in T 931/95, Pension Benefit Systems (OJ EPO 2001, 441), it decided that an apparatus for carrying out an activity excluded as such from patentability by Articles 52(2) and (3) EPC was not itself excluded from patentability (Headnote 3). In particular, a claim directed to a computer loaded with a program was not excluded from patentability by Article 52(2) EPC even if the program itself would be, i.e. if the program caused no "further technical effect" when run. That decision did not however extend the logic to methods employing technical means (Headnote 2). With regard to methods, this decision was explicitly overturned by T 258/03, Hitachi (Headnote 1); T 258/03 came to the conclusion that any claim involving technical means was not excluded from patentability by Article 52(2) EPC (see Reasons 3 and 4), and since a claim directed to a method of operating a computer

involved a computer it could not be excluded from patentability by Article 52(2) EPC. However neither of these decisions dealt with the question whether a claim to a program on a computer-readable medium avoided exclusion. T 424/03, Microsoft, finally extended the reasoning applied in T 258/03 to come to the conclusion that a claim to a program ("computer executable instructions" in the claim in question) on a computer-readable medium also necessarily avoids exclusion from patentability under Article 52(2) EPC (see Catchword 2 and Reasons, point 5.3, "The subject-matter of claim 5 has technical character since it relates to a computer-readable medium, i.e. a technical product involving a carrier (see decision T 258/03 - *Auction method/Hitachi* ...)"). This statement is quite unequivocal and stands alone as a reason for the claim not to be excluded under Article 52(2) EPC.

- 10.7.1 The decision in T 424/03 did go on to note (also in Reasons, point 5.3) that the particular program involved had the potential of achieving a further technical effect when run and thus also contributed to the technical character of the claimed subject-matter. This fact however was not necessary to the conclusion that the claimed subject-matter avoided exclusion, since according to the reasoning of T 258/03 any technical means claimed was sufficient to overcome the exclusion of Article 52(2) EPC. The question whether the program itself caused a "further technical effect" when run, and would therefore also qualify as technical means, only assumed importance for the question of inventive step - in parallel to these decisions the Board had been developing an approach to

the appraisal of inventive step taking into account the fact that some of the features of a claim might, considered alone, fall under the exclusions of Article 52(2) EPC (see T 154/04, Duns, OJ EPO 2008, 46, for an exposition of the approach). For this approach it is important which features contribute to the technical character of the claimed subject-matter, since only such features are taken into account for the assessment of inventive step. In the particular case of T 424/03, both the computer-readable medium and the program itself were features which gave the subject-matter of the particular claim as a whole a technical character, and were both therefore to be taken into account for the assessment of its inventive step.

10.7.2 Thus finally the Board had arrived at a conclusion which clearly contradicted the position (or rather one of the positions) taken in T 1173/97. T 1173/97 declared, "Furthermore, the Board is of the opinion that with regard to the exclusions under Article 52(2) and (3) EPC, it does not make any difference whether a computer program is claimed by itself or as a record on a carrier ... ," (Reasons, point 13), whereas T 424/03 stated, "The subject-matter of claim 5 has technical character since it relates to a computer-readable medium, i.e. a technical product involving a carrier (see decision T 258/03 - *Auction method/Hitachi* ...)", (Reasons, point 5.3).

10.8 Thus there was a difference between the positions taken in T 1173/97 and T 424/03 on this point. It is still however necessary to decide whether this difference constitutes a divergence allowing a

question to be referred by the President on the point. The considerations to be taken into account have been discussed in points 5 to 7 above.

- 10.8.1 Although both these cases were decided by Board 3.5.01 as an organisational unit, the compositions of the Board were completely different, so that a referral on the basis of these two decisions is not excluded (see point 6 above). However there are factors which suggest that the difference should be treated as a development of the case law as discussed in point 7.3 above.

Firstly and most importantly the referral does not identify, and we are not aware of, any decision whatsoever of one of the Boards of Appeal of the EPO which follows T 1173/97 on this point (although T 1173/97 is evidently considered seminal in its definition of "further technical effect" and abandonment of the contribution approach to exclusion).

- 10.8.2 Secondly, the conclusion arrived at in T 424/03 has not been challenged in any later decisions; nor was it isolated but rather came as the last of a series of decisions, the logic of which is consistent and, at least to our knowledge, has also not been challenged in any later decision of a Board of Appeal of the EPO (national court decisions are another matter, but cannot be taken into account for admissibility as discussed above at point 5). For the reader's convenience we rehearse this logic, as we understand it, in what follows.

10.8.3 As discussed above the Board in T 1173/97 consciously abandoned the "contribution approach" and also expressed the opinion (at Reasons, point 13) that "with regard to the exclusions under Article 52(2) and (3) EPC, it does not make any difference whether a computer program is claimed by itself or as a record on a carrier" These two positions are, however, contradictory when considered in the context of the case law of the Boards of Appeal as a whole.

10.8.4 T 1173/97 declares that a claim to a computer program is not excluded from patentability if the program, when run, shows a "further technical effect", i.e. a technical effect going beyond those effects which occur inevitably when any program is run. It further states that this "further technical effect" need not be new and there should be no comparison with the prior art when making the judgement whether there is such a "further technical effect". It cannot have been intended that there be no comparison with the prior art for computer programs, but that there should be for other claimed subject-matters. So it may be concluded that the judgement whether some subject-matter is excluded under Articles 52(2) and (3) EPC from patentability is, according to T 1173/97, always to be decided without regard to the prior art.

10.8.5 Following this principle, a claim to a particular kind of computer-readable medium memory with certain special properties, e.g. a Blu-Ray disk, is evidently not excluded from patentability by Articles 52(2) and (3) EPC, whether or not it is new at the relevant date. But applying the principle consistently, the claim does not have to be a special kind of memory - "A

computer-readable data storage medium," specifying no further details, has the "technical effects" of being computer-readable and of being capable of storing data. And since there is no entry in the list of Article 52(2) EPC relating to computer-readable media as such there is no requirement for a "further" effect going beyond the basic properties of such a computer-readable storage medium. In short, according to the logic of T 1173/97 the following claim is not excluded from patentability by Articles 52(2) and (3) EPC: "A computer-readable storage medium."

10.8.6 In the case law of the Boards of Appeal there has never been any suggestion that narrowing a claim can bring it under the exclusions of Articles 52(2) and (3) EPC, which would require weighting of features or a decision as to which features define the "essence" of the invention (cf. T 26/86, Koch & Sterzel, OJ EPO 1988, 19, Reasons, point 3.4, and T 769/92, Sohei, OJ EPO 1995, 525, Headnote 1), in contrast to e.g. the Bundespatentgericht, where such a weighing up of features has at some times been used (known by the expression "Kerntheorie", see e.g. *Ganahl, Ist die Kerntheorie wieder Aktuell?*, *Mitteilungen der deutschen Patentanwälte* 2003, 537). Thus according to Boards of Appeal case law, since the claim, "A computer-readable storage medium," is not excluded from patentability by Articles 52(2) and (3) EPC, neither is a claim, "A computer-readable storage medium storing computer program X," (cf. "A cup decorated with picture X").

10.8.7 It might be argued that whereas "A Blu-Ray disk with program X written on it," would escape the exclusion

of Article 52(2) EPC, "A computer-readable storage medium with program X written on it," should not. The only basis for such an argument which the Enlarged Board can envisage would be that the feature "computer-readable storage medium" loses its technical nature because it is too generic or "functionally defined". There is however no case law known to the Enlarged Board that would support this view.

10.8.8 Thus the position taken in T 424/03 that a claim to a program on a computer-readable storage medium is necessarily not excluded from patentability by the provisions of Articles 52(2) and (3) EPC is in fact a consequence of the principles laid out in T 1173/97; the contrary position taken in that decision is inconsistent with its own premises. It would appear that the Board in that case did adopt an implicit "essence of the invention" position ("[T]he hardware is not part of the invention. ... Furthermore, it is clear that if, for instance, the computer program product comprises a computer-readable medium on which the program is stored, this medium only constitutes the physical support on which the program is saved, and thus constitutes hardware.") But as explained above there is no support for such an approach in the general case law of the Boards of Appeal.

The arguments above apply with equal force to claims which "mention" a computer (as the referral puts it in Question 2).

10.9 Returning to the direct question of admissibility of the referred question it is further noted that there was a period of approximately seven years between the

issuance of the two decisions, a period which, although not very long in legal terms, is nonetheless compatible with the notion of development of the case law.

10.10 It is perhaps regrettable that the Board in T 424/03 did not mention the fact that it was deviating from an earlier decision, as foreseen in the Rules of Procedure of the Boards of Appeal, Article 20(1) (previously Article 15(1)). However in the judgement of the Enlarged Board this fact alone is not sufficient to disqualify the process as a legitimate development of the case law.

10.11 While the final outcome of the cases is not the decisive factor in determining the admissibility of a referral (see point 7.3.7 above), the Enlarged Board also notes that there is no suggestion in the referral that the change of approach from Article 52(2) EPC to Article 56 EPC had any effect on the final result of T 424/03.

10.12 Thus in the judgement of the Enlarged Board, although T 424/03 does deviate from a view expressed in T 1173/97 this is a legitimate development of the case law and since T 1173/97 has not been followed by any Board on this particular point there is no divergence which would make the referral of this point to the Enlarged Board of Appeal by the President admissible. Question 1 is therefore not admissible.

10.13 The present position of the case law is thus that (phrasing the conclusion to match Question 2 of the referral) a claim in the area of computer programs can

avoid exclusion under Articles 52(2)(c) and (3) EPC merely by explicitly mentioning the use of a computer or a computer-readable storage medium. But no exposition of this position would be complete without the remark that it is also quite clear from the case law of the Boards of Appeal since T 1173/97 that if a claim to program X falls under the exclusion of Articles 52(2) and (3) EPC, a claim which specifies no more than "Program X on a computer-readable storage medium," or "A method of operating a computer according to program X," will always still fail to be patentable for lack of an inventive step under Articles 52(1) and 56 EPC. Merely the EPC article applied is different. While the Enlarged Board is aware that this rejection for lack of an inventive step rather than exclusion under Article 52(2) EPC is in some way distasteful to many people, it is the approach which has been consistently developed since T 1173/97 and since no divergences from that development have been identified in the referral we consider it not to be the function of the Enlarged Board in this Opinion to overturn it, for the reasons given above (see point 7.3.8).

- 10.13.1 In the section 3.1.IV, "Consequences"(page 6), of the referral it is stated that, "if one were to follow the reasoning of T 424/03, overcoming the exclusion of programs for computers would become a formality, merely requiring formulation of the claim as a computer implemented method or as a computer program product." Indeed if the Boards continue to follow the precepts of T 1173/97 it follows that a claim to a computer implemented method or a computer program on a computer-readable storage medium will never fall

within the exclusion of claimed subject-matter under Articles 52(2) and (3) EPC, just as a claim to a picture on a cup will also never fall under this exclusion. However, this does not mean that the list of subject-matters in Article 52(2) EPC (including in particular "programs for computers") has no effect on such claims. An elaborate system for taking that effect into account in the assessment of whether there is an inventive step has been developed, as laid out in T 154/04, Duns. While it is not the task of the Enlarged Board in this Opinion to judge whether this system is correct, since none of the questions put relate directly to its use, it is evident from its frequent use in decisions of the Boards of Appeal that the list of "non-inventions" in Article 52(2) EPC can play a very important role in determining whether claimed subject-matter is inventive.

10.13.2 We note, in passing, that it is somewhat surprising that the referral does not address any of its questions to the validity of this way of judging an inventive step, an issue which is surely of general interest (and one which Lord Justice Jacob proposed should be put to the Enlarged Board - "How should those elements of a claim that relate to excluded subject matter be treated when assessing whether an invention is novel and inventive under Articles 54 and 56?", Aerotel/Macrossan at 76, question (2)). The Board can only speculate that the President could not identify any divergence in the case law on this issue, despite the fact that (at present) approximately seventy decisions issued by a total of fifteen different Boards (in the sense of organisational units) cite T 641/00, COMVIK (OJ EPO 2003, 352), and over

forty decisions by eight Boards cite T 258/03, Hitachi, the decisions which essentially defined the approach. Nor is the Enlarged Board aware of any divergence in this case law, suggesting that the Boards are in general quite comfortable with it. It would appear that the case law, as summarised in T 154/04, has created a practicable system for delimiting the innovations for which a patent may be granted.

11. **Question 2**

"(a) Can a claim in the area of computer programs avoid exclusion under Art. 52(2)(c) and (3) merely by explicitly mentioning the use of a computer or a computer-readable storage medium?

(b) If Question 2(a) is answered in the negative, is a further technical effect necessary to avoid exclusion, said effect going beyond those effects inherent in the use of a computer or data storage medium to respectively execute or store a computer program?"

Admissibility

11.1 Firstly the question has to be interpreted again, although its intention is in this case fairly clear. While the question says "merely by explicitly mentioning", it may be presumed that the referral does intend there to be a functional relationship, such as, "Method of operating a computer according to program X".

11.2 The referral argues that "claims for a computer program and a computer implemented method can be seen

as having an identical scope," and also that "the scope of a method claim would encompass a computer program for carrying out that method," (both referral, page 8), which would not appear to be quite the same thing, since the latter suggests that the scope of the method claim could be greater than that of a claim to a computer program. Reference is then made to the assertion in T 258/03 that any method involving technical means is not excluded from patentability (see Headnote 1). Given the equivalence of method and program claims, this is said to be inconsistent with the requirement in T 1173/97 that programs for computers must show a "further technical effect" in order to escape exclusion from patentability under Article 52(2) EPC.

11.2.1 The argument that computer program claims and computer implemented method claims have identical scope is as follows:

"Method claims are, in essence, a series of instructions or steps which are to be carried out by any capable entity (this could be a person, a machine, a combination thereof or indeed a computer). A computer implemented method corresponds to the specific case of the entity for carrying out the steps being a computer. In the same way a computer program is a series of instructions or steps, constituting a method, whereby the instructions or steps are carried out by a computer. Thus claims for a computer program and a computer implemented method can be seen as having an identical scope," (referral, page 8).

It is to be noted that this argumentation is based on the features claimed actually being the same, rather than any considerations of the protection conferred, in the sense of e.g. Article 123(3) EPC.

11.2.2 There seem to be two logical weaknesses in the argumentation. The first is the assertion that a method can be divorced from the device that it is (to be) carried out on, which is made as a general statement, not limited to computer implemented methods. This is palpably not the case; "A method of operating a shoe polishing machine comprising placing a shoe in a position touching a surface rotatable in a direction ..." clearly requires the presence and involvement of the shoe polishing machine.

11.2.3 The second logical weakness seems to be a confusion between a set of instructions for carrying out steps and the steps themselves. This is already present in the "Definitions" section of the referral ("A computer program is a series of steps (instructions) ..."). There is a general distinction in logic to be made between an object and a name or description of the object. Consider the following argument:

Tigers eat meat. Meat is a word. Therefore tigers eat words.

Clearly there must be an error in this argument. It occurs because "meat" is being used differently in the two premises. In the second premise what is being discussed is not the substance meat, but the name of the substance. These are two different things, and the usual way of distinguishing them is to put the name in

quotation marks. For a famous but more complicated example of this kind of wordplay see *Lewis Carroll's* "Through the Looking Glass (and What Alice Found There)", search expression, "The name of the song is called". In such a complicated situation it is easy to confuse names or descriptions and the things they refer to.

11.2.4 In the present case there is a logical distinction between a method carried out by a computer and the sequential list of instructions which specify that method. This distinction is real; consider for example a program which contains an instruction to increment the value of a variable. There may be only one such instruction in the program, but if it occurs inside a loop (e.g. a "while" statement) the corresponding method carried out by a computer may involve the increment step being carried out many times. It is moreover possible to talk of a computer loaded with a set of instructions or of a computer-readable medium storing a set of instructions. The concepts of a computer (or any other machine) "loaded" with a method, or a computer-readable medium "storing" a method, appear to be meaningless. The only way a meaning can be assigned to these concepts is to assume that they are elisions of, respectively, a computer loaded with and a computer-readable medium storing instructions to carry out a method.

11.2.5 Since formulations like "a program loaded on a computer" and "a disk storing a computer program" are commonplace in the art, the Enlarged Board considers that the skilled person understands the word "program" to refer to the sequence of instructions specifying a

method rather than the method itself. (It may be noted that although very few of the *amicus curiae* briefs addressed this point, those that did agreed with this position, sometimes in rather forceful terms.)

- 11.2.6 The referral's confusion on this point seems to arise from its equating a method claim, which is a description (or at least delimitation) of a method, with the method it delimits: "Method claims are, in essence, a series of instructions or steps ... In the same way a computer program is a series of instructions or steps, constituting a method, whereby the instructions or steps are carried out by a computer. Thus claims for a computer program and a computer implemented method can be seen as having an identical scope."
- 11.2.7 While on a correct interpretation there is a distinction between a computer program and the corresponding computer-implemented method, it is conceivable that there is nonetheless a divergence in the case law of the Boards of Appeal, resulting from a false usage by Boards of the word "program". The referral asserts that two decisions take the same view as it does that a claim to a computer program has the same scope as a claim to a computer implemented method (or that the method encompasses the program), namely T 1173/97 at Reasons, point 9.6, second paragraph, lines 1 to 3, and T 38/86, IBM (OJ EPO 1990, 384), Reasons, point 14 (referral, page 8). Even though the argument made in the referral that a program is the same as a method is not convincing, it is nonetheless necessary to consider whether Boards have in fact used

the expression "computer program" to mean a method in the cases where such use is asserted in the referral.

- 11.2.8 The first citation (i.e. T 1173/97 at Reasons, point 9.6, second paragraph, lines 1 to 3) is, "It is self-evident that a claim to such a computer program product must comprise all the features which assure the patentability of the method it is intended to carry out when being run on a computer." There is however no problem in interpreting this as being a reference to the instructions which make up the program. It does not imply that the Board in T 1173/97 necessarily saw the features of a claim to a computer program product as being method steps. Indeed the sentence which immediately follows the cited one gives the opposite impression: "When this computer program product is loaded into a computer, the programmed computer constitutes an apparatus which in turn is able to carry out the said method." This would appear to indicate that the Board in that case saw computer programs in the same way as the Enlarged Board does.
- 11.2.9 The second citation (i.e. T 38/86, IBM, Reasons, point 14) is, "Although a computer program is not expressly recited in Claim 1, it is clear to a reader skilled in the art that the claim covers the case in which a computer program is used and, indeed, in the only embodiment disclosed in the application the text processing system is controlled by a set of programs and data stored in memory." Claim 1 was a method claim. However this does not mean that a computer program is a method, merely that, as it says, the claim could be satisfied by the use of a computer program. The shoe polishing method mentioned above may be satisfied by a

particular use of the shoe polishing machine, but this does not mean that claims to the machine and to the method have the same scope or that the scope of the method encompasses the scope of the machine. If anything the scope of (in the sense of protection conferred by) a claim to the machine encompasses the scope of a claim to a method of using the machine - see G 2/88 (OJ EPO 1990, 93, Headnotes 1 and 2).

11.3 Thus no divergence in the case law supporting this question has been identified by the referral and the question is therefore not admissible.

12. **Question 3**

"(a) Must a claimed feature cause a technical effect on a physical entity in the real world in order to contribute to the technical character of the claim?

(b) If Question 3(a) is answered in the positive, is it sufficient that the physical entity be an unspecified computer?

(c) If Question 3(a) is answered in the negative, can features contribute to the technical character of the claim if the only effects to which they contribute are independent of any particular hardware that may be used?"

Admissibility

12.1 The referral argues that a divergence arises as follows: "According to decisions T 163/85 [BBC, OJ EPO 1990, 379] and T 190/94 [Mitsubishi, dated 26 October

1995], a technical effect on a physical entity in the real world was required. This was however not the case in T 125/01 [Henze, dated 11 December 2002] and T 424/03. In these decisions the technical effects were essentially confined to the respective computer programs," (referral, page 10).

12.2 There are two evident problems with this assertion. The first is that the referred question relates to individual features, rather than the claimed subject-matter as a whole. The referral does not specify, and the Enlarged Board cannot identify, any passage in the cited decisions relating to the individual features. Indeed the referral does not even mention the fact that the question relates to individual features in its discussion of the alleged divergence.

12.2.1 This is an important point. The case law of the Boards of Appeal as a whole is consistent in considering all the features that are claimed. As mentioned above the Boards have always avoided approaches which involve weighting of features or a decision which features define the "essence" of the invention. It is true that the COMVIK/Hitachi approach to deciding whether there is an inventive step may involve ignoring some features, but the method starts with a consideration of all the features together to determine whether the claimed subject-matter has a technical character. Only once this determination has been made can the Board turn to the question of which claimed features contribute to that technical character and therefore should be taken into account for the assessment of whether there is an inventive step.

12.2.2 It is in fact a well-established principle that features which would, taken in isolation, belong to the matters excluded from patentability by Article 52(2) EPC may nonetheless contribute to the technical character of a claimed invention, and therefore cannot be discarded in the consideration of the inventive step. This principle was already laid down, albeit in the context of the so-called "contribution approach", in one of the earliest decisions of the Boards of Appeal to deal with Article 52(2) EPC, namely T 208/84, VICOM (Reasons, point 4 ff.).

12.3 The second problem with the alleged divergence is that the decisions T 163/85 and T 190/94, said in the referral to require a technical effect on a physical entity in the real world, simply did not do so. They merely accepted this as something sufficient for avoiding exclusion from patentability; they did not state that it was necessary. The referral does not identify any passages requiring such an effect and the Enlarged Board cannot find any.

12.4 Thus there is no divergence. The other two decisions cited considered that there were technical effects; whether the Boards concerned considered that these technical effects were on a physical entity in the real world is irrelevant.

12.5 This question is therefore also inadmissible.

13. **Question 4**

"(a) Does the activity of programming a computer necessarily involve technical considerations?

(b) If Question 4(a) is answered in the positive, do all features resulting from programming thus contribute to the technical character of a claim?

(c) If Question 4(a) is answered in the negative, can features resulting from programming contribute to the technical character of a claim only when they contribute to a further technical effect when the program is executed?"

Admissibility

13.1 Again the question needs some interpretation. The Enlarged Board supposes that "the activity of programming a computer" is intended to relate to the intellectual activity of working out what are the steps to be included in a computer program rather than the simple physical activity of entering a program into some computer.

13.2 The referral asserts (on pages 11 and 12), correctly in our view, that T 1177/97, SYSTRAN, dated 9 July 2002, considers that programming always involves technical considerations, at least implicitly, and that T 172/03, Ricoh, dated 27 November 2003, assumes the same in that it considers the skilled person, who, it is emphasised, is a technical expert, to be a software project team, consisting of programmers. On the other hand, T 833/91, IBM, dated 16 April 1993,

T 204/93, AT&T, dated 29 October 1993, and T 769/92, Sohei, OJ EPO 1995, 525, are said to consider the programmer's activity, programming, to be a mental act, falling within the exclusions of Article 52(2) EPC.

13.3 However, there is no contradiction between these positions, as may be seen by considering the same case in a non-controversial field, for example bicycle design. Designing a bicycle clearly involves technical considerations (it may also involve non-technical, e.g. aesthetic, considerations) but it is a process which at least initially can take place in the designer's mind, i.e. it can be a mental act and to the extent that it is a mental act would be excluded from patentability, just as in the cited cases T 833/91, T 204/93 and T 769/92 (cf. also T 914/02, General Electric, dated 12 July 2005, Reasons, point 2.3 and T 471/05, Philips, dated 06 February 2007, Reasons, points 2.1 and 2.2).

13.4 Hence the question does not satisfy the requirement for a divergence in the case law and is therefore inadmissible.

13.5 While the referral has not actually identified a divergence in the case law, there is at least the potential for confusion, arising from the assumption that any technical considerations are sufficient to confer technical character on claimed subject-matter, a position which was apparently adopted in some cases (e.g. T 769/92, Sohei, Headnote 1). However T 1173/97, IBM sets the barrier higher in the case of computer programs. It argues that all computer programs have technical effects, since for example when different

programs are executed they cause different electrical currents to circulate in the computer they run on. However such technical effects are not sufficient to confer "technical character" on the programs; they must cause further technical effects. In the same way, it seems to this Board, although it may be said that all computer programming involves technical considerations since it is concerned with defining a method which can be carried out by a machine, that in itself is not enough to demonstrate that the program which results from the programming has technical character; the programmer must have had technical considerations beyond "merely" finding a computer algorithm to carry out some procedure.

- 13.5.1 Defining a computer algorithm can be seen in two different lights. On the one hand it may be seen as a pure mathematical-logical exercise; on the other it may be seen as defining a procedure to make a machine carry out a certain task. Thus for example *Knuth*, in "The Art of Computer Programming", Volume 1 / Fundamental Algorithms, second edition, 1973, gives a purely abstract mathematical definition of an algorithm, and then immediately goes on to state that, "There are many other essentially equivalent ways to formulate the concept of an effective computational method (for example, using Turing machines)," (sentence bridging pages 8 and 9). *Turing*, in "On Computable Numbers, with an Application to the Entscheidungsproblem", proved a purely mathematical result but did so by defining a hypothetical, but plausible, machine to carry out algorithms ("The Essential Turing", ed. *B.J. Copeland*, Clarendon Press, Oxford, 2004, pages 58-90). Depending on which of

these views is favoured the question whether computer programming always involves "technical considerations" may be answered negatively or positively. Either view may apparently be genuinely held, as may be seen from the lack of consensus in the *amicus curiae* submissions; which one is held depends on one's intuitive notion of the term "technical". It was apparently the intention of the writers of the EPC to take the negative view, i.e. to consider the abstract formulation of algorithms as not belonging to a technical field (see e.g. the reference to the *travaux préparatoires* in the referral on page 12). In T 1173/97 the Board concentrated on the effect of carrying out an algorithm on a computer, noting that there were always technical effects, which led the Board, since it recognised the position held by the framers of the Convention, to formulate its requirement for a "further" technical effect. Only if a computer program, when run, produced further technical effects, was the program to be considered to have a technical character. In the same way, it would appear that the fact that fundamentally the formulation of every computer program requires technical considerations in the sense that the programmer has to construct a procedure that a machine can carry out, is not enough to guarantee that the program has a technical character (or that it constitutes "technical means" as that expression is used in e.g. T 258/03, Hitachi). By analogy one would say that this is only guaranteed if writing the program requires "further technical considerations".

Conclusion

For these reasons it is decided that:

The referral of 22 October 2008 of points of law to the Enlarged Board of Appeal by the President of the EPO is inadmissible under Article 112(1)(b) EPC.

The Registrar

The Chairman

W. Roepstorff

P. Messerli