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Dear Sirs,

Referral G3/08 under Art. 112 (1) (b) EPC by the President of the EPO to the Enlarged Board of Appeal on the Patentability of Computer Programs

These comments are submitted to the Enlarged Board of Appeal in accordance with Article 10 to the Rules of Procedure and in response to the announcement in the EP OJ 1/2009.

### **Legal Background**

Under Article 112(b) EPC 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. Since the establishment of the EPO, there have been two practices as to when a patent application should be rejected for failure to comply with Article 52(2) EPC.

### **Approach Pre-Pension Benefits & Hitachi**

The EPO decision in Vicom T208/84 established technical effect as the corner stone of the test for determining whether or not a patent relates to patentable subject matter "as such". This decision established that in order for an invention to relate to patentable subject matter the invention had to give rise to a "technical contribution" or "technical effect", stating at paragraph 16 that:

*"Generally speaking, an invention which would be patentable in accordance with conventional patentability criteria should not be excluded from protection by the mere fact that, for its implementation, modern technical means in the form of a computer program are used. **Decisive is what technical contribution the invention as defined in the claim when considered as a whole makes to the known art.**" (emphasis added)*

The approach set forth in Vicom has been encapsulated in the EPO Guidelines for Examination in particular section C-IV- 2.3.6. The approach set out in the Guidelines for assessing claims relating to computer implemented inventions can be summarized as follows:

- 1) Reject a claim if it does not have *prima facie* technical character
- 2) Otherwise, proceed directly to the questions of novelty and inventive step

A list of Practitioners may be inspected at the above address

- 3) In assessing inventive step, establish whether an objective technical problem has been overcome
- 4) Solving a technical problem establishes that the claimed subject-matter has a technical character
- 5) If no such objective technical problem is found, then reject the claim.

Before the Pension Benefits & Hitachi Decisions, if the claims of a patent application failed the tests set out in the Examination Guidelines, the case would be rejected on the ground that it did not relate to a patentable invention in accordance with Article 52(2) EPC.

### ***Pension Benefits & Hitachi***

The approach of examiners changed following the Pension Benefits and Hitachi Decisions T931/95 and T258/03.

In the Pension Benefits case claims directed to a method of controlling a pension benefits program were rejected on the basis of a conventional application of the test set out in *Vicom* with the Board stating in relation to the method claims at paragraph 3 that:

*"All the features ... are steps of processing and producing information having purely administrative, actuarial and/or financial character...the invention as claimed does not go beyond a method of doing business as such and, therefore, is excluded from patentability under Article 52(2)(c) in combination with Article 52(3) EPC; the claim does not define an invention within the meaning of Article 52(1) EPC."*

However, a different approach was adopted in relation to the apparatus claims. Rather than rejecting the claims as failing to relate to technical subject matter under Article 52(2), the Board stated at paragraph 5 that:

*"In the Board's view a computer system suitably programmed for use in a particular field, even if that is the field of business and economy, has the character of a concrete apparatus in the sense of a physical entity, man-made for a utilitarian purpose and is thus an invention within the meaning of Article 52(1) EPC... This means that, if a claim is directed to such an entity, the formal category of such a claim does in fact imply physical features of the claimed subject-matter which may qualify as technical features of the invention concerned and thus be relevant for its patentability. Therefore the board concludes that an apparatus constituting a physical entity or concrete product suitable for performing or supporting an economic activity, is an invention within the meaning of Article 52(1) EPC."*

The Board then went on to reject the application as lacking inventive step stating at paragraph 8 that:

*"... the invention according to the application is an essentially economic one, i.e. lies in the field of economy, which, therefore, cannot contribute to inventive step. The regime of patentable subject-matter is only entered with programming of a computer system for carrying out the invention. The assessment of inventive step has thus to be carried out from the point of view of a software developer or application programmer, as the appropriate person skilled in the art, having the knowledge of the concept and structure of the improved pension benefits system and of the underlying schemes of information*

*processing as set out for example in the present method claims."*

The substitution of the practice of rejecting cases which fail to provide a technical solution to a technical problem on the grounds of inventive step rather than labelling such rejections as causing a lack of patentable subject matter was extended in the Hitachi case with the Board stating at paragraph 4.5 in relation to method claims that:

*"What matters having regard to the concept of 'invention' within the meaning of Article 52(1) EPC is the presence of technical character which may be implied by the physical features of an entity or the nature of an activity, or may be conferred to a non-technical activity by the use of technical means. In particular, the Board holds that the latter cannot be considered to be a non-invention 'as such' within the meaning of Article 52(2) and (3) EPC. Hence, in the Board's view, activities falling within the notion of a non-invention 'as such' would typically represent purely abstract concepts devoid of any technical implications... **A method involving technical means is an invention within the meaning of Article 52(1) EPC.**" (emphasis added)*

What is however to be noted is that the change in practice only amounted to a change in the labelling of basis of the rejection of cases. Both before and after the Hitachi and Pension Benefits cases, applications which failed to establish that an invention provided a solution to a technical problem have always been consistently rejected by the EPO. The sole difference in practice is that failure to demonstrate that an invention provides a technical solution to a technical problem now leads to a case being labelled as not being inventive and hence rejected under failure to comply with Article 56 EPC rather than not relating to technical subject matter and being rejected on the basis of failure to comply with Article 52(2) EPC.

### **Answers to specific questions addressed to the Enlarged Board**

#### **1 Can a computer program only be excluded as a computer program as such if it is explicitly claimed as a computer program?**

The question of whether or not a claim should be rejected should be determined by reference to both the wording of the claim and the nature of an underlying invention. Under both the Hitachi/Pension Benefits approach and the older Vicom practice a claim which is solely directed to an abstract entity would be rejected as failing to relate to a patentable invention under Article 52(2) EPC. A claim directed to an invention which failed to provide a "technical" solution to a "technical" problem would also be rejected. This rejection could either be labelled a rejection for failure to relate to technical subject matter under Article 52(2) EPC – the older Vicom approach or for failure on the grounds of inventive step – applicable under both the Hitachi/Pension Benefits approach and the older Vicom practice.

#### **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?**

The comments in relation to question 1 apply.

#### **2 (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?**

Under both the Vicom and Hitachi/Pension Benefits approach the presence of a technical effect is essential if a patent application is to proceed to grant. The IBM/Computer Program Product Case T1173/97 establishes that this technical effect can, in the case of a computer program on a storage medium, be the potential to cause a programmable computer to become configured in a specific way or perform a method which solves a technical problem. The approach adopted in T1173/97 has been endorsed both by the Bundesgerichtshof in *Suche fehlerhafter Zeichenketten* Case No. XZB 16/00; [2002] IIC 753 and also the English High Court in *Astron Clinica & others* [2008] EWHC85 (Pat) – see comments of Kitchen J at paragraph 50 of the enclosed copy of the Astron Clinica judgement.

**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?**

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

**3 (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?**

The consistent practice of the EPO has been that a technical effect arises whenever technical means solve an objective technical problem in a non-obvious way.

The Examination Guidelines at 2.3.6 provide a useful illustration of examples of what can be considered to be a technical effect stating that:

*“A technical effect which lends technical character to a computer program may be found e.g. in the control of an industrial process or in processing data which represent physical entities or in the internal functioning of the computer itself or its interfaces under the influence of the program and could, for example, affect the efficiency or security of a process, the management of computer resources required or the rate of data transfer in a communication link.”*

However, such a list is clearly only illustrative and non-exclusive. Anything which involves the application of technology to solve a technical problem gives rise to a technical effect. Thus anything which causes technology to operate: faster, more efficiently or on a better way or even in an alternative way to the prior art might be considered to give rise to a technical effect. In the case of computer implemented inventions such technical effects could arise internally within the computer in the case of for example a better or more efficient way of storing or processing data.

The cases cited in the Presidential reference do not establish an inconsistent practice in relation to where a technical effect needs to be established. The decisions T163/85 and T190/94 are examples of Board of Appeal Decisions relating to inventions where an external technical effect could be identified. In contrast T424/03 and T123/01 are examples of decisions relating to technical effects which manifest themselves internally to a computer.

The question of whether technical effects are restricted to those having an external manifestation did not arise in T163/85 and T190/94 as on the facts of those cases the inventions in question did not give rise to anything other than an external technical effect. The

case law merely demonstrates that providing a non-obvious technical solution a technical problem provides the basis for grant of a European patent regardless of where the solution to that problem manifests itself.

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

**4 (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?**

**4 (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?**

The question of whether programming a computer involves technical considerations is dependent upon the nature of the programming that is to be undertaken. It is well established that mere computerisation of something which previously has been done manually is not a sufficient basis for the grant of a patent. Decisions T833/91, T204/93 and T769/92 referred to in the Presidential reference are all examples of such mere computerisation.

In contrast to merely implementing something known on a computer, both T1117/97 and T172/03 relate to decisions where the choices made by a programmer can be said to have solved a technical problem and hence give rise to a technical effect.

Computer programming can therefore involve technical considerations where choices by a programmer may be said to address a technical problem which goes beyond merely computerizing a pre-existing approach.

Yours Faithfully  
Nicholas Fox  
(Authorised Representative)

Encs: Astron Clinica & Others [2008] EWHC 85 (Pat) with confirmation copy only

A handwritten signature in black ink, appearing to read 'Nicholas Fox'. The signature is written in a cursive, flowing style with a large 'N' and 'F'.