

intended recipient, not as it is received." Thus in this context "defin[ing] a structure of the message" essentially refers to the same feature as "assembling the content-related messaging elements in accordance with the instructions," later in the claim.

The Board took the view that its reasoning was congruent not only with T163/85 (BBC) and T1194/97 (Philips) but also with T378/88 (Philips) and T659/04 (Sony – see below) concerning formats of data on a carrier. Thus the Board concluded that the Examining Division's reasons for rejecting the application (as concerning a mere presentation of information as such) under Article 52(2)(d) EPC were also incorrect.

### **T659/04 (Sony) – Presentation of information – Record medium carrying a signal recorded by a new modulation method – New data format – New technical effect (technical character) – Record medium not automatically excluded from patentability**

The appealed first instance decision the Examining Division purported to distinguish the present case from that considered in T1194/97 (Philips). In the appeal, the Board found that "The latter decision concerned a data carrier having a data structure recorded on it, whereas the present record medium has a signal recorded by a new modulation method. The Board concurred with the finding of the Examining Division that the recorded signal produced by the new modulation method does not define a data structure in the sense of T1194/97, saying that it is more aptly and conventionally described as a data signal format. However, the Board noted that T1194/97 applied and extended the ratio decidendi of decisions T163/85 (BBC) and T378/88 (Philips) which related to signal formats and recorded signal formats respectively. The Board concluded that: "Hence if, following T1194/97, data structure features of a record are not excluded from consideration in assessing novelty the ratio decidendi of the latter decision implies that a fortiori data format features are also not excluded."

The Board noted that: "The Examining Division does not dispute the novelty and inventive step of the modulation method taught in the patent application. Indeed the parent application of this present divisional application, the subject of this appeal, has resulted in a granted and unopposed patent, which includes claims to modulating apparatus giving effect to this method. Neither has the Board any reason to cast doubt on novelty and inventive step of the modulation method." The Board further noted that: "Despite the above, the first instance decision found that a record medium having a signal recorded thereon in accordance with the admittedly new method was nevertheless not new. One reason given for this finding was the fact that the record medium is defined as a product-by-process (modulation method) and that "such claims are only admissible if the products themselves fulfil the requirements for patentability and there is no other information available which would have enabled the applicant to define the product satisfactorily by reference to its composition, structure or some other testable parameter."

The Board then said that it "regards this as an accurate statement of the established jurisprudence of the EPO Boards of Appeal." However, with regard to the first instance finding that this statement of the applicable law leads to the conclusion that "The use of a different modulation method for defining a known medium does not confer novelty on the medium", the Board regarded this as "erroneously broad because it fail[ed] to recognise that whereas a new modulation method does not necessarily confer novelty on the medium, it may do so. [and] . Generally a new modulation method produces a record with a new data format and the Board considers it to be so in the present case."

The Board then considered that the first instance conclusion that a record medium having a data format .. is not new "is possibly based on the view that the record medium is 'defined solely by the content of the information'", and therefore by a feature lacking technical character. The Board disagreed with such a view and said that: "It is unacceptably disingenuous to view a record having data recorded thereon in a specific format or pattern as indistinguishable from a record having arbitrary data recorded thereon. The claim has to be given a purposive construction at least to the extent of acknowledging what the subject-matter of the claim purports to be having regard to at least the subjective problem addressed in the description. The chances of a record bearing arbitrary data satisfying the coding rules . . . of the application so as to yield an intelligible result when demodulated by these rules applied inversely are vanishingly small and can surely be neglected."

The Board concluded that: "In the judgement of the Board, defining a record medium as having data recorded thereon by the undisputedly new and inventive modulation method taught in the application results in a new and inventive record medium. It is distinguishable from prior art records by the pattern or format of the data on it and by the technical effect this format achieves in terms of enhanced recording density without impairment of the stability of the readout process."



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### **Inherently Unpatentable? – Recent EPO Board of Appeal Decisions on “Technical Character”**

Article 52(2), qualified by Article 52(3), of the European Patent Convention (EPC) says that some subject-matters or activities are inherently unpatentable. To distinguish between these excluded subjects and patentable subjects, EPO Boards of Appeal have resorted to the concept of “technical character”, the presence of which is considered to be the underlying requirement of the EPC to be met by any patentable invention. This concept has been most developed in the context of computer related (software) inventions - often considered by the EPO to have “technical character” and thus to be patentable. This newsletter reports a handful of recent decisions relating to the evolving concept and treatment of “technical character”.

### **T0914/02 (General Electric) – Mental Acts – Mere “technical considerations” are insufficient to establish technical character, tangible technical implementation is required – Complexity does not disqualify consideration as mental act – “As such” distinction may not apply to mental acts**

In this case the Board of Appeal said: “The claimed method aims at identifying optimum fuel bundle loading arrangements in a nuclear reactor core. It consists in a series of steps which may be purely abstract, as at no stage the use of any technical means is implied. The whole method may be performed mentally . . . Moreover, as a result, the claimed method provides a design of a core loading arrangement which may be a purely mental, abstract scheme of how bundles could be arranged in an actual, real-world nuclear reactor core, rather than a concrete, physical reactor core loading.”

The appellant argued that technical character was present in that the claimed method addresses a technical problem in the field of nuclear reactors, involves technical considerations, lies in the field of technology in general and leads to a solution providing a technical contribution. The Board said that, “Undoubtedly . . . the claimed method is based on technical considerations . . . however, the involvement of technical considerations is not sufficient for a method which may exclusively be carried out mentally to have technical character. In fact, other non-inventions listed in Article 52(2) EPC, such as scientific theories, but also computer programs, typically involve technical considerations. In the present case, rather, technical character would be provided through the technical implementation of the method, resulting in the method providing a tangible, technical effect, such as the provision of a physical entity, e.g. a reactor core loaded according to a given design, or a non-abstract activity, such as through the use of technical means. The claimed method, however, lacks such a technical implementation.”

The appellant suggested that sheer complexity of the proposed solution implied use of technical means, in particular a computer. The Board took the view that the “alleged mentally irresolvable complexity . . . is not given in the present case . . . Furthermore, it is doubtful as a matter of principle whether complexity can be used to disqualify an activity as a mental activity. Rather, generally it would appear that if computer means indeed are indispensable, they should be included in the claim as an essential feature of the invention.” (see below).

The appellant also referred to decision T1173/97 (IBM), in which a distinction was made between programs for computers “as such”, excluded from patentability, and programs having technical character. The appellant argued that a distinction should be made between methods of performing a mental act “as such” and methods of performing a mental act having technical character. The Board took the view that: “it may be questioned, whether the distinction made in the decision referred to above for programs for computers can be sensibly extended to the other entities and activities listed in Article 52(2) EPC, or whether rather the particular character of programs for computers should be acknowledged in this respect. In any case, the present findings are not in contrast with the above cited decision. The distinction between methods of performing a mental act ‘as such’ and methods of performing a mental act having technical character may be drawn where the method provides a tangible technical effect, such as the provision of a physical entity as the resulting product or a non-abstract activity, such as through the use of technical means.”

In an auxiliary request the claim was amended to contain the simple feature of “using a suitably programmed computer”, which was considered by the Board to define technical means to be used in the method, such that the claimed method no longer related to a mental act as such but rather to provide a technical implementation thereof. The amended claim was thus considered to have technical character and not to be excluded from patentability. This request was remitted to the first instance for further consideration, for example of inventive step. The Board noted (following e.g. T258/03, Hitachi and T641/00, Comvik) that: “it should be borne in mind, that where a claim contains both features pertaining to the realm of non-inventions . . . as well as further features, such as features pertaining to the use of technical means, for the purposes of the assessment of inventive step only those features of the claim can be disregarded which do not contribute to a technical character of the claimed subject-matter.”

### **T531/03 (Catalina Marketing) – Ignoring non-technical aspects when assessing inventive step is a requirement of the EPC – TRIPS does not mean that non-technical aspects should be considered**

This decision confirms the approach to assessment of inventive step mentioned above: (i) features relating to a non-invention . . (so-called "non-technical features") cannot support the presence of inventive step, and (ii) an attempt to take into account the contribution of non-technical and technical aspects on an equal footing in the assessment of inventive step would not be in conformity with the EPC, since the presence of inventive step would then be attributed to features which are defined in the EPC as not being an invention.

The appellant argued that the approach developed in earlier decisions (e.g. T931/95, Pension Benefit Systems and T641/00, Comvik) for treating non-technical features when assessing inventive step was incorrect, since there was no justification in the EPC or TRIPS for ignoring the contribution of non-technical features in the assessment of inventive step.

The Board of Appeal said that: "In this connection, the term 'non-technical' feature is to be understood as a feature relating to a non-invention within the meaning of Article 52(2) EPC" . . "A further term used in this connection is the "technical character" of an invention. This term is not mentioned in the EPC but is derived from the term "invention" used in Article 52(1) EPC in conjunction with the exclusion under Article 52(2) and (3) EPC to be understood as implying a 'requirement of technical character' . . It follows . . that the term 'non-technical feature' relates to features in a claim, which on their own would not contribute to the technical character of the invention."

The Board reconfirmed that: "An invention may . . contain a mixture of technical and non-technical features and still be considered to have a "technical character" (c.f. e.g. T26/86, Koch & Sterzel & T769/92, Sohei)". The Board also followed more recent decisions T931/95 (Pension Benefit Systems) and T258/03 (Hitachi) which found that a device or method involving any technical means should be considered as having technical character. The Board noted that it was acknowledged in T258/03 that such a liberal assessment of the presence of technical character has the consequence that the question of technical character is answered in affirmative even when the technical means involved are trivial. The Board further noted that decisions T931/95 and T258/03 also address the question as to how non-technical features are to be treated in the assessment of inventive step, also indicating that only those features which contribute to the technical character of the invention can contribute to inventive step, and that in decision T641/00 (Comvik) it was held that when an invention consists of a mixture of technical and non-technical features and has technical character as a whole, the assessment of the requirement of inventive step should take into account all the features which contribute to the technical character whereas features making no such contribution cannot support the presence of inventive step.

Following these decisions, the Board concluded that: "The approach suggested by the appellant taking into account the contribution of non-technical and technical aspects . . on an equal footing when assessing inventive step would not distinguish between technical and non-technical features . . The Board considers that this approach is not in conformity with the EPC, since [it would mean that] the presence of an inventive step would be attributed to features which are defined in the EPC as not being an invention."

With regard to TRIPS the Board stated that: "The argument that the TRIPS agreement would allow patents for methods of conducting business is not relevant, since as held in G2/02 (Decision of the Enlarged Board of Appeal, AstraZeneca) . . the European Patent Organization is not a party of TRIPS and is therefore not bound by TRIPS .."

### **T125/04 (Comparative Visual Assessments) – Presentation of information – Computer program – Discounting non-technical aspects when assessing inventive step – Normal use of computer – Obvious implementation which provides no inventive step**

The invention in this case was concerned with the visual depiction of information, in (vector) diagram form, based on computer processing of information.

In the appealed first instance decision the view was taken that the essence of the claimed invention was a computer program for aiding a user to make a visual assessment and that: "Due to the fact that such a program processes data which is neither related to the operating parameters of a device (just non-technical data), nor affects the physical/technical functioning of the device (it just supplies visual information) and as it does not solve a technical problem (it merely presents the data as a vector diagram chart), the claimed invention defined by such a program for computers refers also to methods for performing mental acts and programs for computers as such and is hence excluded from patentability by Art. 52(2)(c) and (3) EPC."

The Board of Appeal agreed with the "facts" as set out above but not with the inference drawn from them, namely that the invention would be excluded from patentability by virtue of Article 52(2) and (3) EPC. The Board took the view that, according to decision T931/95 (Pension Benefit Systems) a computer system suitably programmed for use in a particular field is an invention within the meaning of Article 52(1) EPC, and that decision T258/03 (Hitachi) holds that the same applies to a method involving technical means. Applying the reasoning underlying these two decisions, the Board found that the independent claims in this case defined subject-matter which was not excluded per se from patentability.

Subsequently, in considering inventive step, the Board analysed claim features for technical character. The Board noted that some features were conventional and that some features related to various means for implementing specific functions or steps in a computerised system, which means were entirely defined by the functions to be achieved and might be realised by suitable programming. Some of these steps were acknowledged to be known per se and the Board considered they related to activities falling under the concept of information modelling as such and so could not contribute to the technical character of an invention. It was taken that other features mentioned in the

claim were not known, but that their effect was exclusively an effect on a human being, and an intellectual one. The claim wording was considered to support this view, since it defined the invention as a visual assessment system.

The appellants pointed out that the invention manipulated "raw data" to produce "final data" in a form helpful for human decision-making, but the Board found that some data manipulation was inevitable in any kind of presentation of information in the form of a figure or a diagram. The Board expressed the opinion that, in general, the task of designing diagrams was non-technical (see T244/00, Matsushita) and that this was so even if the diagrams arguably convey information in way which a viewer may intuitively regard as particularly appealing, lucid or logical.

The appellants argued that a form of diagram (vector diagram) as a manner of representation, as distinguished from the mere information content, may constitute a patentable technical feature. The Board considered this argumentation to be very general and not to specify which claimed aspect might hint at a technical feature. The Board added that insofar as a specific manner of representation was concerned in the present case, this manner had been conceived exclusively with regard to a human being's mental capabilities and with a view to aiding a user to visually analyse data and make decisions on the basis of this analysis. It did not relate to any technical format or structure of the information processed, nor was it linked to the internal functioning of the system.

The Board considered earlier decisions T769/92 (Sohei) and T643/00 (Canon), but found that they did not speak for patentability in this case. The Board also took the view that the "invention" in this case concerned only the information conveyed by images, i.e. their "cognitive content" (c.f. T1194/97, Philips). The 'new' features had to do with how this content is represented. Unlike the cited (Philips) case the invention provided no information about the computer system itself, such as the location where the data are stored. The Board was of the view that this also established a distinction between this case and T115/85 (IBM) where it was found that giving visual indications automatically about conditions prevailing in an apparatus or system is basically a technical problem.

The Board noted that according to T641/00 (Comvik) features of a claim making no contribution to the technical character of an invention cannot support the presence of inventive step, and took the view that implementing the claimed steps by merely providing means for carrying out these steps is obvious. Summing up, the Board indicated that it could not find that the steps performed by the relevant claim features had any technical effects going beyond those obtained by the normal use of a computer. It therefore followed that the subject-matter of claim 1 lacked an inventive step.

### **T858/02 (Lucent) – Presentation of Information – Format or structure of a message is distinct from message content and is not automatically excluded from patentability**

In this case the Board noted that (i) when considering the nature or category of a claimed invention attention must be paid to the substance of what is claimed, rather than only taking into account how the claimed subject-matter is designated, which can be deceptive, and (ii) an electronic message is not automatically excluded from patentability . . as a presentation of information. This will depend on whether the message is defined by its structure or its content.

In contrast to the first instance decision, on appeal it was noted that whereas the term "message" may in some contexts refer merely to the information it is intended to convey, when qualified by the term "electronic" the natural meaning refers to its physical realisation. The Board commented that: "An electronic message is an electrical, magnetic or electromagnetic signal or collection of signals and moreover clearly the product of an electronic process" (implying technical character?) and noted that "This conclusion is congruent with the decision in T163/85 (BBC) to grant a patent containing a claim directed to a "colour television signal."

The first instance decision briefly expressed the view that the message was "solely characterised by the content of the information therein" (and therefore characterised by a feature lacking technical character). In response, the appellant cited T163/85 (BBC) and T1194/97 (Philips) and argued that the claimed "instructions" were "functional data" in the sense of the latter decision. In the first instance, the Examining Division did not accept the applicability of these two decisions. In relation to the former decision it considered that the electronic message in this case was not analogous to the colour television signal of T163/85 because it did not inherently comprise the technical features of the messaging system. As to T1194/97 it was considered that the feature of the claim specifying a messaging system "capable of interpreting the instructions" did not have a limiting effect on the features of the claimed message. It was also considered that the message was exclusively defined by its "format (i.e. data structure)" and not by functional data, since the claim specified that "the instructions ... define a structure of the message."

The Board said that it "does not share this view. In order to handle the claimed electronic message properly the messaging system must be able firstly to distinguish those elements of the message which constitute instructions from those which represent content, and secondly to assemble content elements according to the instructions . . These are technical restrictions on the nature of the messaging system, not satisfied by an everyday answering machine (in the case of a voice system), or by a simple text (as opposed to HTML) email system, for example. The messaging system may have a very wide range of possible implementations, but it is nonetheless restricted to specific technical features, and the claimed electronic message does inherently comprise those technical features relevant to the invention.". Moreover, the Board said that "since the parts of the message which constitute 'instructions' must be automatically recognised and processed by the receiving message system, which processing in turn determines how the message is presented to its final recipient, the Board considers that the instructions do constitute 'functional' rather than 'cognitive' data in the sense in which those terms are used in T1194/97."

The Board commented that: "The Examining Division's . . argument, that the instructions are not unambiguously "functional" data because according to the claim they 'define a structure of the message', seems to be based on a misconception of the claimed subject-matter. As the Board interprets the claim, the reference to the 'structure of the message' here relates to the message as it is passed on to the