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EUROPEAN PATENTS

Non-patentable Subject Matter at the European Patent Office

The European Patent Convention (EPC) includes a list of subject matter that, as such, cannot be patented. The list includes potentially commercial valuable items, such as business methods and computer programs. This information sheet explains how the European Patent Office (EPO) draws a line between what is patentable and what is excluded from patentability, and how the EPO's assessment of inventive step is now the critical test in obtaining protection for inventions which relate to business methods and computer programs.

This subject is important because there is less restriction on what can be patented before the US Patent and Trade Mark Office (USPTO). As a result, certain inventions that are considered patentable by the USPTO may be refused patent protection by the EPO. The EPO's restrictions are continually tested by applicants trying to obtain protection for such inventions.

LEGAL BACKGROUND

The EPC states that in general a European patent shall be granted for any invention which is susceptible of industrial application, which is new and which involves an inventive step. This general statement is limited by defining a list of subject matter that is excluded from patentability:

(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.

However, the EPC present a caveat to this limitation by saying that patentability is excluded for that subject matter "only to the extent to which a European patent application or European patent relates to such subject-matter or activities as such". The two words "as such" are crucial. They emphasise that the exclusions should be interpreted narrowly. This is the reason why European patents may be granted for inventions which involve computer programs or can be embodied as business methods. In these cases the 'invention' is something other than a pure computer program or pure business method.

The key question is how does one decide whether an invention relates to excluded subject matter "as such". The EPC itself contains no guidance on the matter. Interpretation of this area has been left to case law.

The approach of the EPO

Until relatively recently, the EPO decided whether or not an invention was excluded from patentability separately from assessing whether it was novel and involved an inventive step. However, recently the hurdle set by this separate 'patentability' test was dramatically lowered. This lowering was caused by EPO Board of Appeal decision T 258/03, in which Mewburn Ellis represented the applicant, where the Board stated that a definition of an invention that includes **any** 'technical' subject matter cannot be excluded *per se* from patentability.

As a result, inventions should only be refused without a novelty/inventive step assessment if their definitions consist **exclusively** of features that fall within the scope of excluded subject matter. Accordingly, inventions with definitions that have a mixture of 'technical' and excluded subject matter therefore should always be assessed for novelty and inventive step. This means that inventions that would have been refused previously because they were held to relate to excluded subject matter are now being assessed for novelty and inventive step.

However, this loosening of the separate 'patentability' test has been balanced by the establishment of tighter restrictions in the assessment of novelty and inventive step of inventions with definitions that have a mixture of 'technical' and excluded subject matter. Understanding these restrictions is important when seeking patent protection for ideas which include subject matter that is excluded from patentability.

Even more recently, decision T 388/04 effectively limited the extent to which the patentability hurdle was lowered by decision T 258/03. In that decision, the Board held that the mere

implication that some unspecified 'technical' subject matter was involved in an invention was not necessarily enough automatically to render the invention patentable.

Inventive step assessment at the EPO

The EPC states that an invention shall be considered as involving an inventive step if, having regard to the state of the art, it is not obvious to a person skilled in the art.

Applying this bare legal definition to real-life inventions is not trivial. In an attempt to provide a consistent interpretation, the 'problem-and-solution approach' was developed through case law of the EPO Boards of Appeal. The problem-and-solution approach has three main stages:

(i) determining the "closest prior art",
(ii) establishing the "objective technical problem" to be solved, and
(iii) considering whether or not the claimed invention, starting from the closest prior art and the objective technical problem, would have been obvious to the skilled person.

It is the second step - establishing the technical problem - where the EPO's practice with respect to inventions involving a mixture of patentable and excluded features has developed recently.

Dealing with excluded subject matter - the 'framework' of the problem

EPO Board of Appeal decision T 641/00 is the leading decision in a line of cases which establish that where a claim contains both technical and non-technical subject matter, **only the technical part** should be used as the basis for inventive step.

The ostensible purpose of this approach is to reduce the invention to its technically contributing features to analyse the problem that they solve. However, this decision went further.

Referring specifically to the second step of the problem-and-solution approach, the Board held the mere presence of a feature in the definition of an invention should not automatically preclude it from appearing in the problem. They explicitly said that where the invention has an aim in a non-technical (i.e. excluded) field, that aim could legitimately appear as part of the **framework** of the technical problem, e.g. as a constraint to be met.

This reasoning was developed in Board of Appeal decision T 258/03. The technical problem was defined as how to program a server to implement the steps of an automated auction method. The striking thing about this decision is that the auction method itself was new, i.e. would not have been available when the invention was made. The Board felt that this did not affect the rationale of decision T 641/00, concluding that since the auction method was excluded subject matter (a business method) it was legitimate to include it in the problem.

Decisions T 531/03 and T 125/04 further develop this concept by incorporating other subject matter from excluded fields (marketing strategy and diagram design respectively) into the problem. The Board maintain that it is legitimate to do this even if these excluded features are not to be found in the prior art (as with the auction method in decision T 258/03).

The modified problem-and-solution test

The problem-and-solution approach to inventive step assessment as modified by decision T641/00 as developed by decisions T531/03 and T125/04 may be summarised thus (with relevant modifications in italics):

- determine closest prior art document (using all features of claim);
- strip non-technical features from claim
- establish objective technical problem solved by the (remaining) technical part of claimed invention over the closest prior art document, wherein non-technical features such as the aims, commercial and/or aesthetic considerations may be included as part of the framework of the problem, and
- consider whether the claimed invention would have been obvious to a skilled person in light of the technical problem and closest prior art document.

A criticism of the EPO's approach is the use of non-technical benefits (i.e. achieved aims) conferred by the invention in the formulation of the problem (or the problem's framework). The inherent danger of *ex post facto* analysis is exposed: what if the benefits became clear only when the new invention was developed? In other words, could not the invention reside in the realisation that a new technical structure provides advantages?

Practical response

Is there anything that can be done to avoid or reduce the risk of being caught out by the EPO's approach?

The first point to note is that it is impossible to prevent the EPO from inferring particular features (technical or non-technical) as being part of a particular problem on the basis of the prior art. However, by avoiding certain statements in the specification and communications with the EPO, it may be possible to avoid damaging a patentee's position. For example, one type of attack against a problem formed by the EPO is to argue that it relies too heavily on knowledge of the invention. The key to such an attack is to try to limit information presented in the application that the EPO may say would have been provided to or known by the skilled person.

For example, care should be taken when discussing deficiencies of the prior art that can be addressed by the invention. This is to reduce the risk of an opinion given about the background art with the knowledge of the invention being used by the EPO in

formulating a framework for the technical problem. Similarly, care needs to be taken when describing aims or objectives of the invention.

The way in which the invention is presented to the EPO can be crucial in determining how they will deal with it. For computer-related inventions involving a mix of technical and excluded subject matter, the establishment of the technical problem is now crucial to success.

EPO compared with UK Intellectual Property Office (UK-IPO)

Patent law in the UK contains the same list of excluded subject matter as the EPC. The provisions are intended to and in practice do have a similar effect to those before the EPO. However, the UK courts and the UK-IPO do not assess this part of the law in the same way as the EPO. Thus, while the EPO and UK-IPO may agree that a certain invention cannot be patented, their respective reasonings may differ.

At the end of 2006, a decision in the UK Court of Appeal clarified how the UK-IPO should assess whether inventions are for patentable subject matter. The key parts of the assessment are two steps which occur after the UK-IPO has determined the scope of the claim: an identification step and a determination step. The identification step looks for the contribution that the invention makes over what was done before (i.e. what the inventor has added to the stock of human knowledge). The determination step asks whether this contribution falls solely within any of the types of subject matter that are excluded from protection.

In essence, the UK-IPO approach assesses whether the allegedly new part of the invention is excluded from protection. A potential problem with this approach is that the UK-IPO can be influenced by the context within which the contribution is made. For example, a new data communication network presented as an interactive gaming environment may suffer because the contribution could be seen as an improved method of playing a game, whereas if the network was presented in terms of an information exchange system such an objection could be avoided.

Thus, presentation of an invention is also important before the UK-IPO. At the UK-IPO it is important that the new parts of an invention are presented independently of any context which is associated with excluded subject matter.

This information is simplified and must not be taken as a definitive statement of the law or practice. For more information on Mewburn Ellis LLP and other intellectual property matters, please contact us or visit our website at www.mewburn.com. Mewburn Ellis LLP is a Limited Liability Partnership registered in England (no. OC306749). Registered Office at 33 Gutter Lane, London EC2V 8AS

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