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PRACTICE NOTE

The "As Such" Exclusions – Case Law, Practical Tests & Recommendations

Introduction

We have previously commented on the legal perspectives of, and attempted reconciliation between, the European Patent Office (EPO) and UK Intellectual Property Office (UK IPO) with respect to the "as such" exclusions to patentability under ostensibly Art. 52(2) & Art. 52(3) EPC. The following practice note provides:

Section I: a summary of the principal case law in Europe and the UK;
Section II: an update on recent developments, including signposts toward what might amount to a "technical contribution"
Section III: observations & practical recommendations (based on experience) on how to mitigate the possibility of negative European decisions.

In the 6-months since the ***Symbian Limited vs. Comptroller decision [2008 EWCA Civ 1066 Case No. A3/2008/0950]***, there has been a noticeable change in outlook from UK Examiners and another UK decision ***AT&T Knowledge Ventures/CVON [2009 EWHC 343 (Pat)]*** that confirms our earlier recommendations on approach.

The Legislation

Art. 52(1) EPC: European patents shall be granted for any inventions, in all fields of technology, provided that they are new, involve and inventive step and are susceptible to industrial application.
Art. 52(2) EPC: 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) presentation of information.

Art. 52(3) EPC: 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. [emphasis added]

Interestingly, no single decision satisfactorily deals with the "*technical*" nature of patentable inventions. Indeed, in looking at the statute reproduced above, no reference exists in Art. 52(2) EPC to any "technical" requirement or test. This has caused the UK judiciary (at least) to state that "The stipulation of a requirement for a technical contribution can lead to a potentially dangerous exercise of asking whether an application satisfies that stipulation rather than whether it satisfies the statutory requirement itself".

However, technical contribution remains the acid test (per *T208/84-Vicom*), so where exactly does this leave us?

Section I: Principal Case Law

The following summaries represent what we currently assess to be the salient issues raised in some of the principal decisions. The list of cases is not exhaustive and only intended to raise awareness to some seemingly important issues relevant to procurement/prosecution. In making legal arguments in specific cases, these summaries might therefore provide a starting point, but they are not meant as a substitute for considered legal research and detailed understanding.

1. *G01/04 – Diagnostic Methods*

According to the Enlarged Board of Appeal (EBA), the correct approach is to *"take a narrow view on what is excluded, placing emphasis on the legislature's deliberate use of the words "as such".*

2. *T208/84 – Vicom*

A "*technical contribution*" was achieved from an enhanced picture that came about from a substantial increase in processing speed. It was not the enhanced image in *Vicom* that brought the case outside the exclusion of Art. 52(2) EPC, but rather the way the enhanced image was produced.

The decision established a global approach to "invention", namely "*Decisive is what technical contribution the invention as defined in the claims when considered as a whole makes to the known art*". Furthermore, it would be "inappropriate" to make a distinction between embodiments of the same invention carried out in hardware or in software because "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".

3. *T0154/04 – Duns Application*

Art. 52(2) EPC does not exclude from patentability any subject matter or activity having a *technical character* even if it is related to the items [programs for computers, business methods, etc.] listed in the provision since these items are only excluded "*as such*".

The four requirements for invention, novelty, inventive step and susceptibility to industrial application are *essentially separate and independent criteria* of patentability.

And, the claim must be construed to determine the *technical features* of the *invention*, i.e. those features which *contribute* to the *technical character* of the invention.

That said, in a claim it is legitimate to have a *mix* of technical and "non-technical" features and in which these non-technical features may actually form a dominating part of the claimed subject matter. However, non-technical features, *to the extent that they do not interact with the technical subject matter for solving a technical problem*, i.e. non-technical features "as such", do not provide a technical contribution to the prior art and are thus to be ignored in assessing novelty and inventive step.

And in relation to the problem-solution approach... the problem must be a technical problem which the skilled person in the particular technical field might be asked to solve at the relevant priority date. The technical problem may therefore "be formulated using an aim to be achieved in a non-technical field, and which is thus not part of the technical contribution provided by the invention to the prior art".

4. T1543/06 Gameaccount

In a similar fashion to Duns Application, this case related to a mixed technical/non-technical invention. The case failed because the Board was unable to identify any effects other than those inherent in the game rules themselves or those connected to carrying out functions by a computer with a processor and

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display and no identifiable synergistic effect between the game rules and technical implementation could be identified.

However, this decision confirmed that the mere technical implementation of excluded subject matter *per se* cannot form the basis of inventive step, i.e. it is necessary to ask how the *per se* subject matter (e.g. a game or business method) is implemented. Additionally, a consideration of the particular manner of implementation *must focus on any further technical advantages or effects associated with the specific features of implementation over and above the effects and advantages inherent in the excluded subject-matter*. *Gameaccount* therefore follows from the earlier decision *T1173/97*.

5. T1173/97 - IBM "Computer Program Product"

Established that computer program claims are allowable…"if the program has the potential to bring about, when running on a computer, ***a further technical effect which goes beyond the normal physical interactions between the program and the computer***".

6. T258/03 – Hitachi

This case related to the automation of the non-technical activity of performing a "Dutch" auction in the absence of bidders whereby a server (implementing the method) applied a business scheme (amounting to rules of an auction) and performed any necessary calculations.

The decision provided a definition of what amounts to an "invention" under Art. 52(1) EPC, i.e. "subject matter having technical character" that can be inferred from the physical features of an entity or the nature of an activity or could be conferred on a non-technical activity by the use of technical means.

From the perspective of inventive step, *T258/03-Hitachi* confirmed that an invention which as a whole falls outside the exclusion zone of Art. 52(2) EPC (i.e. is technical in character) cannot rely on excluded subject matter alone, even if that non-technical matter is novel and non-obvious, i.e. "Method steps consisting of modifications to a business scheme and aimed at *circumventing* a technical problem rather than *solving* it by technical means cannot contribute to the technical character of the subject matter".

7. T125/01

In *T125/01,* a pure software enhancement (with no changes to the physical hardware) constituted an invention because the software made a technical contribution.

8. T163/85

Coded information was held capable of conferring a technical character on the information itself because it reflected the properties of the technical system by virtue of its formatting and/or processing. In this case, the television signal was not an abstract entity, but a physical reality and could be detected.

9. T833/91

In *T833/91* it was held that the mere act of programming by itself could not take a computer implementation outside the "as such" exclusion because programming *per se* merely involves the presentation or ordering of information and/or the performance of a mental act.

10. T641/00-Comvik.

T641/00-Comvik is presently cited in the Guidelines for Examination for the EPO (probably solely for the reason that it was a decision that was handed down by a member of the Board of Appeal involved in re-writing the related section of those guidelines. More particularly, the claims in *T641/00-Comvik* were directed towards nothing more than financial management of a cellular phone device based on its access to two different SIMs with two

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different identifies. The claims can therefore be considered to be representative of some form of financial *behavioural* control. *Comvik* therefore appears limited in its applicability and further appears to be quite case specific, but is frequently cited by the EPO.

11. Aerotel/Macrossan [2007, RPC 7]

This English Court of Appeal decision is whole-heartedly disliked by the EPO (see Leaman Browne Practice Note: ***PATENTABILITY OF PROGAMS FOR COMPUTERS****: Extent of the "As Such" Exclusion following UK Court of Appeal Decision in Symbian)* because any reference to the prior art in the context of Art. 52(2) and (3) EPC would lead to "insurmountable difficulties". However, we make reference to this decision in this summary because the Technical Board of Appeal further qualifies the correct approach to assessing invention by stating that a good faith interpretation of the European Patent Convention means that "the technical effect approach (with the rider)" applied in *Aerotel/Macrossan* is irreconcilable with the EPC *for the further reason that it presupposes that novel and inventive purely excluded matter does not count as a 'technical contribution*'"

12. Symbian Limited vs. Comptroller decision [2008 EWCA Civ 1066 Case No. A3/2008/0950]

This case shifted the UK position back towards the "global approach" to invention as established in T208/84-Vicom, but also suggested that the *Aerotel/Macrossan* decision was not an aberration but consistent with the case law of EPO case law. Significantly, ¶56 of the Symbian decision re-aligns the EPO and law in the UK because "when a computer with a new program operates better than a similar prior art computer, "to say, "oh but that is only because it is a better program – the computer itself is unchanged" gives no credit to the ***practical reality*** of what is achieved by the program. As a matter of such reality there is more than just a "better program", there is a faster and more reliable computer".

13. The EBA Referral in G03/2008

This referral can, by and large, be ignored. Essentially, commentary from within the EPO and UK IPO confirms our earlier position that the referral will maintain the *status quo* because (1) it asks the wrong questions (2) in a leading way that will (3) lead in inevitable answers that (4) provide no additional clarity on the significant issues of:

i) If computer programs fall within a field of technology for which patents can be granted, at what point does an invention, implemented as a computer program, acquire a technical contribution sufficient to take it beyond the "as such" exclusion of Art. 52(2) & (3) EPC? And

ii) How, if at all, does this answer change in relation to any mixed invention that combines technical features with interacting, non-technical features?

Section II: "What amounts to a Technical Contribution" - Useful Signposts from AT&T/CVON

In CVON, the venerable English High Court judge suggested that there are essentially 5 ways of considering whether the claimed subject matter possesses the requisite "technical effect", but also qualified his comments (thereby reconciling the UK and EPO positions) by saying that it was then still necessary to consider whether such a claimed technical effect (i.e. the EPO's technical contribution) lay solely in the excluded subject matter of Art. 52(2) EPC.

The suggested approach (which we view as useful) is to consider:

1. Whether the claimed technical effect has a technical effect on a process which is carried on outside of the computer? [*Commentary*: this appears to touch on aspects of the recent *machine-or-transformation test* in the decision of the US Federal Circuit in *Bilski*]
2. Whether the claimed technical effect operates at the level of the architecture of the computer, i.e. whether the effect is produced irrespective of the data being processed or the application being run? [*Commentary*: this seemingly reflects the IBM decisions *T0115/85*, *T06/83* & *T22/85* as referenced in *Gale's application* [1991[R.P.C. 305].

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3. Whether the claimed technical effect results in the computer being made to operate in a new way? [*Commentary*: this seems to equate to the position in T1173/97-IBM]
4. Whether there is an increase in speed or reliability of the computer. [*Commentary*: *per Symbian*].
5. Whether the perceived problem is overcome by the claimed invention as opposed to merely being circumvented. [*Commentary*: per *T258/03-Hitachi*]

[As a light aside, the judge's approach contrasts with the tongue-in-cheek advice once offered to a junior UK IPO Examiner who inquired about the nature of "technical contribution"... the witty reply from a senior colleague was: "It's like an elephant, you'll recognize it when you see one"].

Section III: Observations, Conclusions and Recommendations

The definition of the technical problem remains difficult if the actual novel and creative concept making up the core of the claimed invention resides in the realm outside any technological field as it is frequently the case with computer implemented inventions (and similar "as such" subject matter). It is therefore necessary to reflect on the *real technical contribution* provided to the prior art. Unfortunately, G03/08 isn't going to help. Indeed, the handling of interactions between technical and non-technical features is seemingly not well understood by the EPO's Examining Division and it is therefore a critical success factor to have the position adequately developed in written arguments (for reasons of possible appeal). The lack of clear and general guidance for the EPO's examining divisions means that it is absolutely necessary to question and expose each any every "leap of faith" that these examiners suggest in assessing inventive step of potentially "non-technical" subject matter.

- In trying to define the "technical contribution of the invention" (*per Viacom*), it seems appropriate to argue that such a contribution provides, in '*practical reality*', something that works better by virtue of the invention.

- In framing the detailed description, it is necessary to bear in mind the international nature of the application and the differing standards/tests for both inventive step and excluded subject matter:
  - Avoid using language that directly reads onto the European exclusions.
    - UK Courts have been keen to latch onto statements that suggest ethical considerations and seemingly to exercise moral prejudice (however wrong) in their reasoning.
  - Emphasize the functional effect(s) and *practical reality* achieved by the invention.
  - Don't obscure the invention, but be clear while mindful to cover the various aspects and embodiments of the invention.
    - In ***Conor Medsystems vs. Angiotech*** [2008] UKHL 49, senior Law Lords were extremely critical when they stated that "the inventors and those who drafted the specification have to some extent brought the tribulations of this litigation upon themselves".
  - Avoid inappropriate use of the word "may" that makes the embodiments appear too tenuous. Internal commentary from within the UK IPO is "say what you see and mean what you say".
  - Avoid contrasting any advantages attributable to the invention as corresponding to business transactions, e.g. credit card transactions.
  - Think laterally to turn commercial advantages achieved by the claimed invention into *technical solutions that have an underlying technical problem*.
    - For example, the inventor's idea is to alert a gambler to the existence and location of a gaming machine (in a casino) perceived by the player to be either "hot" or "cold" that therefore ripe for payout. The inventor's idea might therefore be interpreted by the Examiner as seeking to generate greater cash revenue by encouraging the commencement of gambling in the shortest time frame. To place a technical slant on this objective, the specification might instead be framed to describe the technical contribution as being embodied in either:

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  - i) a system of managing the playing of gaming machines across a network, the system operatively based on user selected criteria and the re-direction of that user based on their individually selected criteria; or
  - ii) a system controller that determines game machine usage and which operates to distribute usage of machines [across the casino] by generating and displaying location identities of gaming machines that fall into each of a plurality of user-identified categories.

  By framing the inventor's idea in terms of the technical impact on either the system (as a whole) or on the system controller, points (i) and (ii) deflect the Examiner's attention away from potentially objectionable "non-technical" business aspects.
- Provide a mix of interacting technical and non-technical features, rather than an aggregation of unrelated features (see *T37/82, T285/91* and *T294/89)*.
- UK IPO Examiners have also recently indicated that the 4-stage *Aerotel/Macrossan* test can seemingly be overcome with reference to the specific technical operation of the system because the specifics often reflect the underlying technical contribution.
- Avoid Bilski-esque objections of "insignificant post-solution activity" by expressly augmenting the specification with statements concerning real-world ("practical reality") technical advantages.
- Frame the introductory portion of the specification to set out some form of technical problem or at least the disadvantages experienced in the prior art. Without some form of pointed discussion, the EPO (particularly) will often try to suggest that the invention has no technical benefit and that features can be isolated using the "contribution approach". Whilst there is a cost to the client, both in terms of drafting time and potential acknowledgement of prior art, the risk of not adequately setting out a secondary technical solution or an underlying technical problem is likely to be worse, i.e. rejection of the invention as a "non invention" under Art.52(2) EPC.

In many respects, the recent Federal Circuit decision in *Bilski* has brought the US position on claims directed towards non-patent eligible subject matter under 35 U.S.C. §101 closer to the EPO approach. At the same time and in a complementary sense, the overly-aggressive reaction in the UK (following *Aerotel/Macrossan*) has been tempered by *Symbian* (and followed in CVON) to seemingly endorse a common international position on, at least, the patentability of business method patentability. Whether the current legal position will stifle the appropriate reward for ingenuity and curtail investment in innovation is a discussion for another day.

Both the EPO and European national courts get decisions wrong and strong advocacy skills (and a willingness to question and expose frailty) are critical in building a successful team that can acquire appropriate rights.

In summary, prosecution of cases before the EPO that involve some form of financial management or human *behavioural control* (or fail to highlight a practical application for the concept) are likely to face severe problems. In general, there is a strong push to have applications provide and describe some form of synergy or secondary technical effect, since these aspects can be used as leverage against cases such as *Hitachi*. Moreover, there is preponderance for EPO examining divisions in the field to apply the so-called "contribution approach" that appeared in ***T931/95-Pension Benefit*** to isolate features in the claims and to exclude those features from consideration under Art.56 EPC - inventive step. Such a form of feature isolation therefore operates against a supportable argument of technical interaction that would otherwise provide an overall (secondary) technical effect or some additional synergy, as indicated by both *T1173/07-Computer Program Products* and *T0154/04-Duns Licensing*.

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