

ALTAIR IP

1. Please find enclosed an amicus curiae brief in relation to G1/19. This case arises from the referral in T489/14 which seeks to overturn the approach of T1227/05.

1.1 In preparing this brief, I have reviewed some of the other submissions now available on the EPO web-site. The submissions I have read provide widespread support for the approach set out in T1227/05, and little or no support for the position of T489/14 (at least to the extent that it criticises T1227/05).

1.2 I strongly agree with these other submissions, namely that T1227/05 was correctly decided, and the approach described therein should be supported by the Enlarged Board of Appeal.

1.3 Given that these other submissions have already provided clear and cogent reasons for this conclusion, the present brief has a slightly broader focus on the issues arising from T489/14.

2. T0489/14 adopts what is termed a "narrow interpretation" of the exclusions of Article 52(2) EPC (reasons 6); the rationale of this approach is set out most fully in Duns Licensing (T154/04). This is sometimes portrayed as two-step process: first exclude subject matter which falls within the (narrow) scope of Article 52(2) EPC, and then also enforce a requirement for technicality as part of Article 56 EPC - features must contribute to the solution of a technical problem to be considered under Article 56 EPC.

2.1 However, this two-step process is misleading, because if all the features of a claim are non-technical (such as to fall foul of Article 52(2) EPC), then it does not seem possible for such non-technical features to define a solution of a technical problem; hence the claim would necessarily fall foul of Article 56 EPC.

2.2 In other words, the exclusion of Article 52(2) EPC is redundant, because the exclusion would in any event be enforced (in practice) by Article 56 EPC. In this situation, the only relevance of Article 52(2) EPC is to inform the analysis of Article 56 EPC concerning what is or is not a technical feature. However, if this was the originally intended purpose of Article 52(2) EPC, surely this wording would have been incorporated into Article 56 EPC itself.

2.3 Accordingly, I do not think the "narrow interpretation" of Article 52(2) EPC can represent the original intention of the EPC. This view is consistent with the lack of complaints against the broader interpretation which prevailed for many years after the EPC came into force.

2.4 This does not necessarily imply that the narrow interpretation should be rejected. For example, as noted in G03/08 (reasons 10.11), the switch from a broader interpretation to the narrow interpretation of Article 52(2) EPC has not appeared to significantly change the boundary of what can or cannot be patented (based on the combination of Article 52(2) EPC and Article 56 EPC) - and it is this boundary that is ultimately of significance to patentees and the public. In a historical context, the approach of Duns Licensing and related decisions can be seen as a reasonable response to the proliferation of cases relating to Internet-implemented applications and associated business methods - a proliferation which would

have been difficult to foresee at the time the EPC was originally agreed. Moreover, the UK national law following the Court of Appeal decision in *Aerotel*, which effectively maintains the broader interpretation of Article 52(2) EPC, has its own problems (especially a reliance on a "contribution" that is hard to define).

2.5 The purpose here is to caution placing too much reliance on the original intentions of the relevant provisions of the EPC. Thus not only is it difficult to wind back nearly fifty years to accurately discern these original intentions, but it is also difficult to then extrapolate these original intentions fifty years forwards to the present environment. This conclusion is especially relevant, given that the narrow interpretation relied upon in T489/14 almost certainly does not conform to these original intentions (for the reasons presented above).

2.6 Notwithstanding the above observations, the **general motivation** of the patent system remains relevant for the present case - namely patents provide a practical system to encourage the development, exploitation and dissemination of new technology.

2.7 T1227/05 is fully in line with this general motivation of the patent system, and gives clear policy benefits in support of the patentability of the invention considered therein (see, e.g. Reason 3.4.2). In contrast, T489/14 provides no counter-arguments in terms of **policy** against the approach of T1227/05.

2.8 Instead, T489/14 relies (reasons 11) upon the assertion that "a technical effect requires ... a direct link with physical reality". However, T489/14 does not appear to provide any arguments (policy or legal) in support of this assertion.

2.9 One might characterise T489/14 as too little, too late: too little, because the arguments supplied against T1227/05 are insufficient to cast serious doubt on this earlier decision, and too late because T1227/05 has, in effect, become established case law – i.e. adopted in the Guidelines, followed in many other decisions, and consistent with national decisions as well.

2.10 The bar to overturn such established case law must be set very high, because the disruption that would be caused to patentees and to the public is clearly detrimental. As noted above, T489/14 fails to provide a credible case to overturn T1227/05 on its own merits, let alone to overcome the strong incentive to maintain the status quo of established case law.

3. T489/14 (reasons 4) argues that "without the feature 'computer-implemented', the scope of claim 1 encompasses methods for performing mental acts as such, which are excluded from patentability under Article 52(2) and 52(3) EPC". Consequently the Board in essence regards claim 1 as representing a non-technical method performed on a general-purpose computer (reasons 8).

3.1 I disagree with this approach of analysing claim 1. The situation is fundamentally different from the claim analysis of (say) a bicycle, which may break a claim down into features such as the frame, wheels, pedals, etc, each of which has a technical (physical) reality, with the bike then being the combination of these physical components. In contrast, every step of claim 1 is recited as **computer-implemented** - there are **no** mental act steps. Indeed, it is clear that the defining characteristic of the "mental act" exclusion is that a method **has** to be performed **mentally**. (In contrast, one can see that in general terms, i.e. without specific reference to the "narrow interpretation" of Article 52(2) EPC, a business or mathematical method does not depend on being performed mentally rather than by using a computer).

3.2 Claim 1 as considered in T489/14 is explicitly computer-implemented – **hence the mental act identified in the claim analysis of T489/14 is entirely artificial** – in other words, an artefact of the claim analysis itself, but not of the claim itself. In particular, claim 1 recites no such mental acts, and no such mental acts are involved in any implementation of the claimed invention. Since Article 113(2) EPC requires any decision to be based on the wording submitted by the applicant, **the analysis of T489/14 is contrary to this requirement of Article 113(2) EPC.**

3.3 A further problem with the claim analysis of T489/14 is the selection of a general computer system as the "closest prior art". There is prior art cited in the application itself, prior art cited in the third party observations and prior art cited by the Examining Division (albeit not relied upon for the final decision) – and most, if not all of this prior art is indisputably closer to claim 1 than a general computer system.

3.4 The labelling of something as the "closest prior art" when this is manifestly **not** the case is undesirable. It is confusing for users of the patent system, both within Europe and without, as well as the public in general. In legal terms, it is also difficult to reconcile such mislabelling of the closest prior art with the problem-solution approach for the assessment of inventive step.

4. Article 52(1) EPC requires that patents are available for inventions "in all fields of technology". This expression originated in a separate treaty (WTO TRIPs), originally independent of the EPC, and is clearly intended to ensure inclusivity of patentable inventions. In these circumstances, there is a strong argument that the **only** acceptable criterion for assessing patent eligibility is whether a claimed invention lies in a field of technology.

4.1 It would still seem feasible to defer the assessment of technicality to Article 56 EPC, in line with current EPO practice, **providing this does not exclude cases that are in a field of technology.** In other words, I doubt that Article 56 EPC can be interpreted to provide a restriction which is narrower than "in all fields of technology", since this would negate the purpose of this TRIPs provision (and hence conflict with Article 52(1) EPC).

4.2 Accordingly, it could be argued that the "technical effect" test is incompatible with Article 52(1) EPC and should be replaced with a requirement that a claimed invention lies in a field of technology. Moreover, the scope of this requirement cannot simply be mapped back to "technical effect", because the provenance of "field of technology" clearly lies outside the EPC. Rather "in all fields of technology" would be interpreted in its normal, everyday sense, e.g. by considering the subject matter of technology courses at university, and the skills and research of people who have followed those courses.

5. There are various other more direct ways to confirm T489/14 with the outcome of T1227/05. One possibility is simply to reject the requirement of T489/14 that a technical effect requires a direct link with physical reality. G03/08 already seems to have rejected such a requirement (see the discussion of Question 3). Furthermore, Vicom (T208/04) held (reasons 3 and 5) that an image represents a technical object and hence is not excluded from patentability, and moreover an image may be "of a simulated object (as in ... CAD/CAM)". So both G03/08 and also Vicom T208/04 seem to refute the position of T489/14 that a direct link with physical reality is needed for patentability.

5.1 Alternatively, one could take a broader interpretation of what represents such a direct link with physical reality. For example, in the same way that Vicom considers an image to be

a technical object, a simulation could likewise be considered as a technical object – a set of data stored within a computer having a specific technical meaning and value. (Note that the value of the simulation may lie in determining what to build – or what not to build).

5.2 It is also possible to regard a simulation, at least in some situations, as a substitute for direct physical testing. This certainly reflects the motivation for simulation in many industrial contexts, and not having to perform direct physical testing can provide a technical effect in the real world (e.g. the simulation may be much safer than direct physical testing, lower pollution, lower energy consumption, etc).

5.3 Another possibility is to focus on technical purpose, as per T1227/05. For example, if a simulation is performed with a view to supporting the development of a technical product, the simulation can be regarded as inherently technical (and hence inherently providing a technical effect).

6. I think we have too many “technical” – technical problem, technical solution, technical contribution, technical effect, technical purpose, technical character, technical feature, technical consideration, etc. I think we could probably manage with just technical problem and technical solution – if a feature contributes to the technical solution of a technical problem, then it is relevant for assessing inventive step. The other “technical” parameters are not needed.

6.1 T489/14 is also concerned with a claim scope matching a technical effect. Although I understand this concern, it must also be noted that a manufacturer cannot control how a consumer uses a product – e.g. an umbrella may be provided with an inventive waterproof coating, but a consumer might buy the umbrella purely for use as a parasol. That should not invalidate any patent protection on the umbrella itself.

6.2 It is also noted that a feature may be motivated by both technical and non-technical considerations – e.g. a car may have a stream-lined appearance that has both a technical benefit (reduced drag) and a non-technical (aesthetic) benefit. However, the latter does not prevent the patentability of the former, even though they coincide.

7. Based on the above observations, we recommend the following answers to the Questions posed by T489/14:

- 1) Yes
- 2) Yes – it is a sufficient condition that the simulation is based on technical principles underlying the simulated system or method
- 3) The answers to questions 1 and 2 are unchanged

Simon Davies
Director
Altair IP
srd102030@gmail.com