

10.8. Surprising effect – bonus effect

An effect which may be said to be unexpected can be regarded as an indication of inventive step (T 181/82, OJ 1984, 401). However, certain preconditions have to be met. In T 21/81 (OJ 1983, 15) the board considered that if, having regard to the state of the art, it would already have been obvious for a skilled person to arrive at something falling within the terms of a claim, because an advantageous effect could be expected to result from the combination of the teachings of the prior art documents, such claim lacked inventive step, irrespective of the circumstance that an extra effect (possibly unforeseen) was obtained (see T 365/86, T 350/87, T 226/88, T 1317/13). Similarly, in T 69/83 (OJ 1984, 357), the board held that where, because of an essential part of the technical problem being addressed, the state of the art obliged a skilled person to adopt a certain solution, that solution was not automatically rendered inventive by the fact that it also unexpectedly solved part of the problem. (see also T 231/97). In T 170/06 the board held that if it was obvious for the skilled person to combine prior art teachings in order to solve an essential part of the problem, the presence of even an unexpected extra effect allowing another part of the problem to be solved at the same time did not in principle imply the presence of inventive step.

Furthermore, in T 192/82 (OJ 1984, 415) the board stated that the skilled person had to be free to employ the best means already available for his purposes, although the use of means leading to some expected improvements might well be patentable in relying on an additional effect, provided this involved a choice from a multiplicity of possibilities. The lack of alternatives in this respect might therefore create a **"one-way-street"** situation leading to predictable advantages which remained obvious in spite of the existence of some unexpected **"bonus" effect** (see also T 766/92, T 1936/13). The board also pointed out in T 506/92 that an additional effect achieved inevitably by the skilled person on the basis of an obvious measure without any effort on his part simply represented a bonus under EPO case law which could not substantiate inventive step, even as a surprising effect (see also T 431/93, T 681/94, T 985/98, T 794/01, T 688/13, T 179/18). In T 848/94 the solution of the existing technical problem required a combination of measures that was not suggested by the prior art in such a manner that it would have been adopted by the person skilled in the art (see also T 716/07). Therefore, the person skilled in the art was not in a "one-way-situation".

The board in T 936/96 held that, once a realistic technical problem had been defined and once it had been established that a particular solution to such a problem would have been envisaged by a skilled person in the light of the relevant state of the art, that solution could not be said to involve an inventive step, and this assessment was not altered by the fact that the claimed invention inherently also solved further technical problems. In the case in point the claimed surprising effect could not be regarded as an indication of the presence of an inventive step.

In T 227/89 the board stated that in determining which effect was crucial and which was merely accidental (the so-called "bonus effect"), a realistic approach had to be taken, considering the relative technical and practical importance of those effects in the circumstances of a given case (see also T 732/89, T 729/90, T 1147/16). When assessing