EIP

# T 1762/21 – The EPO Board of Appeal Clarifies the Term "Inextricably Linked" When Assessing an Intermediate Generalisation

**A recent decision from a Technical Board of Appeal of the European Patent Office provides clarity as to how "intermediate generalisations" are assessed for added matter. This decision states that certain features can be omitted from a claim if they are not necessary for achieving the technical effect of the claim. This potentially marks a shift towards greater flexibility for claim amendments, highlighting that not every disclosed feature must be defined in the claims if a skilled person would understand such features are not necessary.**

In this case, the Board emphasised that features unrelated to image optimisation in a breast tomosynthesis system can be left out of the claim if they do not contribute to optimisation of the acquired images, even if they contribute to the general functioning of the system.

~~Background~~

T 1762/21 concerns an appeal from the opponent. The appellant requested that the patent be revoked because, among other things, an amendment involved added matter. The appellant argued that several features, essential for the system of claim 1, had been omitted from the claim when being amended. They therefore argued that the claims contained an unallowable intermediate generalisation.

~~The Patent~~

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The patent relates to a breast tomosynthesis system. Breast tomosynthesis is a three-dimensional imaging technology which acquires X-ray images of a breast at multiple angles during a short scan involving the movement of an X-ray tube. The individual images are then reconstructed into a series of thin high-resolution slices that can be displayed and analysed.

Claim 1 as originally filed related to the X-ray tube itself. The X-ray tube has an anode, a cathode, a focusing cup, a port and a controller. The port allows X-rays to pass through to define a static focal spot, which impinges the breast. The controller is coupled to at least one of the anode, the cathode, and focusing cup, and modifies at least one characteristic of the static focal spot during the exposure period.

Claim 2 defined two options: (i) the characteristic being a location of the static focal spot, or (ii) the characteristic being a size of the static focal spot.

During prosecution, the claim was amended to focus on option (i) of claim 2, to define the tomosynthesis system as a whole (which comprises the X-ray tube), and to define in more detail how the controller controls the location of the static focal spot.

Granted claim 1 therefore defined a system comprising the X-ray tube, a detector, and compression paddles (to hold the breast in place). Granted claim 1 further defined that the controller is configured to cause the X-ray tube to move in a first direction during the exposure period to move the static focal spot within the X-ray tube in a second direction, opposite from the first direction, so that a resulting effective focal spot appears to be fixed in space, relative to one of the breast and/or the detector, during the entire duration of the exposure. The result of this movement is said to increase image sharpness.

~~Issues~~

The main argument of the appellant was that claim 1 now defines a system, but several essential features from the description are omitted. They argued that the basis/support in the specification for defining a system could only come from paragraphs [0010] and [0020].

Those paragraphs read as follows:

[0010] Figure 1 illustrates a breast tomosynthesis system 100 which includes an X-ray tube of the present invention.

[0020] Figure 1 illustrates a tomosynthesis system 100 which includes an X-ray tube 110,

upper and lower compression paddles 130, 135, an anti-scatter grid 140 and a detector 160. The X-ray tube 110 includes a cathode 112, an anode 114 that is mounted on a shaft
p3 116 and rotated by a motor 118, a tube port 120. Also shown attached to the X-ray tube are a filter 122 and a collimator 124.

The appellant argued that paragraph [0020] mentions several features that are not defined in claim 1, such as a scatter grid, the qualification of "upper and lower" for the compression paddles, and the configuration of the anode, a filter and a collimator. As a consequence of the omission of these features, embodiments other than those disclosed in the application as filed fall under the scope of protection. They therefore argued that the claims amounted to an intermediate generalisation.

~~Board of Appeal Decision~~

The Board of Appeal disagreed with the appellant.

The Board stated that:

"When assessing the allowability of an intermediate generalisation, it has to be established whether, because of this generalisation, the claim presents technical information which extends beyond what was directly and unambiguously disclosed, be it explicitly or implicitly, to the person skilled in the art using common general knowledge in the application as filed. This is the "gold" standard for assessing any amendment for its compliance with Article 123(2) EPC."

"The person skilled in the art is presented with subject-matter extending beyond the application as filed when an amended claim includes only some features of an originally disclosed combination and the features left out of the claim were understood, by the person skilled in the art, to be inextricably linked to the claimed ones. ~~**This is the case if the person skilled in the art would have regarded the omitted features to be necessary for achieving the effect associated with the added features.**~~ In such a situation, the amended claim conveys the technical teaching that the effect can be obtained with the claimed features alone, which is in contrast with and extends beyond the originally disclosed subject-matter that the whole combination of features was needed."

In this specific case, the Board noted that:

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"the features of these claims relate specifically to optimising the acquired images by acting on the focal spot.**Features in the description concerned with other aspects of the system,** such as the way the X-rays are generated or the way the breast is fixed in place on the detector,**may be left out of the claims as long as they are not relevant to the optimisation,** even if they contribute to the general functioning of the tomosynthesis system."

"the omission of a scatter grid, of the qualification of "upper and lower" for the compression paddles, of the anode being mounted on a shaft and rotated by a motor, of a filter, of a collimator, of a glass vacuum tube, of the cathode in the form of a heated filament and of the form of the focusing cup... is not problematic.**The person skilled in the art would have recognised that the omitted features do not contribute to optimisation of the acquired images by acting on the focal spot**.... The person skilled in the art **would have been aware of several alternative mechanical arrangements** for such control and is thus not presented with technical information which was not directly and unambiguously derivable from the application as filed."

The Board therefore concluded that claim 1 did not involve added matter. The appeal was dismissed, and the patent was maintained as granted.

Conclusions

This decision seems to be a softening of the EPO's stance on assessing whether a claim amendment adds matter. Previously, it may have been more difficult to argue that features can be left out of a claim without the specification including an explicit reference to those features being optional, or being interchangeable with alternative features known to the skilled person. This decision implies that such an explicit statement is not needed if the skilled person would inherently know this.

It will be interesting to see whether this decision is an outlier, or if future Boards will follow suit.

The decision can be found here.