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**Datasheet for the decision
of 21 June 2022**

Case Number: T 0803/17 - 3.2.02

Application Number: 06709968.9

Publication Number: 1858430

IPC: A61B19/00

Language of the proceedings: EN

Title of invention:
SURGICAL PLANNING

Patent Proprietor:
KINGS COLLEGE LONDON
Depuy International Limited

Opponent:
Calibre Search Ltd.

Headword:

Relevant legal provisions:
EPC R. 99(2)
EPC Art. 106(2), 54, 56
RPBA Art. 12(2), 12(4)
RPBA 2020 Art. 12(2), 13(2)

Keyword:

Admissibility of appeal - appeal sufficiently substantiated
(yes)

Admissibility of opposition

Appeal decision - extent of examination - *reformatio in peius*

Late-filed evidence - submitted shortly before oral
proceedings - admitted (no)

Novelty - (yes)

Inventive step - (yes)

Decisions cited:

G 0009/92, T 0384/08, T 1437/15, T 0882/17, T 2117/18,
T 0460/19

Catchword:

The yardstick for determining whether the position of an appellant is, because of its own appeal, worsened in a way which is incompatible with the principle of the prohibition of *reformatio in peius* is the order of the decision under appeal, in particular the order's legal effect on the appellant.

If an opposition is considered inadmissible in the appeal proceedings, an appellant whose opposition was rejected in the decision under appeal as unallowable would not be in a worse position than if it had not appealed, as in both cases the patent would be maintained as granted. The legal reasons leading to this result, including whether the opposition is rejected as inadmissible or unallowable, do not fall within the scope of the principle of the prohibition of *reformatio in peius* (Reasons 3.5).



Beschwerdekammern
Boards of Appeal
Chambres de recours

Boards of Appeal of the
European Patent Office
Richard-Reitzner-Allee 8
85540 Haar
GERMANY
Tel. +49 (0)89 2399-0
Fax +49 (0)89 2399-4465

Case Number: T 0803/17 - 3.2.02

D E C I S I O N
of Technical Board of Appeal 3.2.02
of 21 June 2022

Appellant:

(Opponent)

Calibre Search Ltd.
7 Brewery Place
Leeds
LS10 1NE (GB)

Representative:

Parker, Andrew James
Meissner Bolte Patentanwälte
Rechtsanwälte Partnerschaft mbB
Widenmayerstraße 47
80538 München (DE)

Respondent:

(Patent Proprietor 1)

KINGS COLLEGE LONDON
The Strand
London WC2R 2LS (GB)

Respondent:

(Patent Proprietor 2)

Depuy International Limited
St. Anthony's Road
Beeston, Leeds LS11 8DT (GB)

Representative:

Murgitroyd & Company
Murgitroyd House
165-169 Scotland Street
Glasgow G5 8PL (GB)

Decision under appeal:

**Decision of the Opposition Division of the
European Patent Office posted on 20 January 2017
rejecting the opposition filed against European
patent No. 1858430 pursuant to Article 101(2)
EPC.**

Composition of the Board:

Chair	M. Alvazzi Delfrate
Members:	N. Obrovski
	A. Martinez Möller

Summary of Facts and Submissions

- I. An appeal was lodged by the opponent against the decision of the Opposition Division rejecting the opposition.
- II. In the first-instance opposition proceedings, in their reply to the notice of opposition, the proprietors submitted that there were doubts as to the identity of the opponent and that the opposition was thus inadmissible. The opponent then filed a request for correction of the opponent's name under Rule 139 EPC. With a communication pursuant to Article 113(1) EPC dated 15 April 2016, the Opposition Division informed the parties that "the request for a correction of the name of the opponent under Rule 139 EPC dated 25.03.15 is hereby accepted and the notice of opposition is admissible" and gave reasons for this decision. The opponent's name was then corrected.

In its decision dated 20 January 2017 rejecting the opposition, the Opposition Division did not refer to the issue of the admissibility of the opposition.

- III. Oral proceedings before the Board took place on 21 June 2022.

The appellant (opponent) requested that the decision under appeal be set aside and that the patent be revoked.

The respondents (proprietors) requested that the appeal be found inadmissible, that the opposition be found inadmissible, or that the appeal be dismissed.

IV. Claim 1 of the main request reads as follows:

"A computer implemented method (110) of planning at least a part of a surgical procedure to be carried out on a body part of a patient, comprising:
providing (112) a statistical shape model of the body part; and
instantiating (116) the statistical shape model of the body part using data derived from the patient's real body part, characterised in that, the statistical shape model incorporates data representing at least a part of a planned surgical procedure to be carried out on a corresponding real body part of the patient and wherein instantiating the statistical shape model of the body part also adapts the part of the planned surgical procedure to reflect the anatomy of the patient's real body part to automatically plan (118) the part of the planned surgical procedure."

V. The following documents are relevant to this decision:

E1: US 2003/0185346

E2: US 2005/0004451

A1: T. J. Hutton et al., "Active shape models for customised prosthesis designs", AIMDM'99, LNAI 1620, pp. 448-452, 1999

A2: Office Action by the United States Patent and Trademark Office for application no. 11/847,652 dated 22 October 2020.

VI. The appellant's arguments, as far as they are relevant to the decision, can be summarised as follows:

Admissibility of the appeal

In several sections of the statement of grounds of appeal, arguments were presented against the reasoning provided in the appealed decision. Hence the appeal was admissible.

Admissibility of the opposition

The appellant stated that it had requested in its appeal that the Opposition Division's decision dated 20 January 2017 be overturned and that the patent be revoked. The Opposition Division's decision dated 15 April 2016 in which the opposition had been considered admissible had not been appealed. This would not even have been possible for the appellant/opponent, as it had not been adversely affected by it.

The respondents could have filed an appeal but did not do so. They were thus limited to responding to the grounds of appeal provided by the appellant, but could not raise new grounds of their own in the appeal proceedings. Therefore there was no basis for discussing the admissibility of the opposition within the scope of the present appeal.

Admittance of the objection of added subject-matter

The appellant's objection on added subject-matter in its statement of grounds of appeal reflected what had been submitted in the opposition proceedings, but also showed why the appellant disagreed with the decision under appeal. Naturally, the objection of added subject-matter provided in the appeal proceedings could not differ materially from the same objection previously raised. An appellant should have the opportunity to receive a second opinion and overturn a

decision which it considered inaccurate with regard to such an objection as well.

Admittance of A1 and A2

Document A1 served to explain how claim 1 was to be interpreted and document A2 to show that document A1 was known to the respondent. There was thus no reason to disregard them.

Novelty over E1

The subject-matter of claim 1 lacked novelty over E1.

The term "statistical shape model" was vague, and neither claim 1 nor the description provided an explicit and full definition. Paragraph [0013] of E1 disclosed a shape model which was derived statistically, and thus a "statistical shape model" within the meaning of claim 1. The person skilled in the art would not have understood that the statistical model of E1 excluded a statistical shape model, which was well known.

Claim 1 did not require the "data representing at least a part of a planned surgical procedure" to be different from the anatomical data. Hence both sets of data could overlap as was clear in dental surgery for the teeth surrounding a planned implant. That claim 1 encompassed this overlap was also clear from the patent specification, in particular from dependent claims 4-8 and from paragraph [0064].

E1 in paragraph [0015] disclosed a generic model comprising both an anatomical model and a geometric model. The anatomical model and the geometric model

overlapped, therefore the anatomical model of E1 should be regarded as incorporating planning data.

Admittance of the novelty objection over E2

E2 comprised essentially the same subject-matter as E1. Hence the subject-matter of claim 1 was not novel over E2.

Inventive step

The subject-matter of claim 1 was not inventive over document E1.

The two distinguishing features identified by the Board, namely the model being a statistical shape model and the statistical shape model including the planning data, did not lead to any synergistic effect.

A statistical shape model was well known to a person skilled in the art, as evidenced by the reference in paragraph [0032] of the patent specification to an article from 1992. It would have been an obvious choice to use a statistical shape model, either to minimise the amount of data or merely as an alternative.

The patent specification did not include evidence showing any improvement from including the planning data in the statistical shape model. The inclusion did not lead to any technical effect, or was even detrimental, implying more work to create the model and more data in the model. Hence no inventive step could be acknowledged.

VII. The respondents' arguments, as far as they are relevant to the decision, can be summarised as follows:

Admissibility of the appeal

The statement of grounds of appeal did not substantiate any new arguments, evidence or facts in response to the appealed decision. The appeal was thus inadmissible.

Admissibility of the opposition

The appellant had appealed the entire decision, including the part finding the opposition admissible in the communication dated 15 April 2016. Article 106(2) EPC applied because the Opposition Division had not given any opportunity to appeal that part of the decision separately at the time the communication was issued.

The opposition was not admissible because there were reasonable doubts as to the identity of the opponent. Firstly, the notice of opposition did not indicate that the opponent was a limited company. Secondly, companies "Calibre Search Ltd" and "Calibre Search (Manchester) Ltd" were both registered at the address indicated in the notice of opposition. Hence it was equally likely that "Ltd" or "(Manchester) Ltd" had been omitted in the notice of opposition. Thirdly, it was not clear whether there were joint opponents or a single opponent. Fourthly, the opponent's letter of 22 October 2015 showed that it was not clear to the opponent's representative who the opponent was.

The opposition had been rejected, hence finding the opposition inadmissible would not put the appellant in

a worse position and would comply with the prohibition of *reformatio in peius*.

Admittance of the objection of added subject-matter

The objection was not substantiated because the statement of grounds of appeal did not address the reasons in the appealed decision.

Admittance of A1 and A2

Documents A1 and A2 represented an amendment to the appellant's appeal case. They had been filed shortly before the oral proceedings and should not be admitted.

Novelty over E1

The subject-matter of claim 1 was novel over E1.

It was well known to the person skilled in the art what a statistical shape model was and that it included variation information. A definition was also provided in paragraph [0011] of the patent specification. E1 only referred to a statistical model and did not disclose a statistical shape model.

Moreover, E1 did not disclose that the geometric data of paragraph [0015] was part of the statistical model of paragraph [0013].

Admittance of the novelty objection over E2

The objection of lack of novelty over E2 was not substantiated and should not be admitted.

Inventive step

E1 did not suggest using a statistical shape model. Including the planning data in the statistical shape model made it possible to account for anatomical variations in the surgical plan as well. Even if the technical problem starting from E1 were regarded as only providing an alternative, this alternative was not suggested by E1. Hence the subject-matter of claim 1 was inventive over E1 and common general knowledge.

Reasons for the Decision

1. Invention

- 1.1 The invention deals with a computer implemented method of planning at least a part of a surgical procedure to be carried out on a body part of a patient.
- 1.2 The method uses a statistical shape model of the body part. This model may be derived, for example, from a database of images.
- 1.3 The model is instantiated for the specific patient using data derived from the real body part. This may be achieved for example by spatially matching the model to X-ray or ultrasound images of the patient.
- 1.4 The model also comprises data representing at least a part of the planned surgical procedure to be carried out. For example, when the surgery involves the replacement of the acetabular cup, this may be two points - defined by their three-dimensional coordinates - which are used to describe the orientation of the acetabular cup and its radius.

1.5 Instantiating the model also adapts the part of the planned surgical procedure to reflect the patient's real body part. Continuing with the example of the replacement of the acetabular cup, instantiating the model would result in the points describing the orientation of the cup and its radius also being adapted to the specific patient's anatomy. Thereby the surgeon is provided with information which can be used, for example, to determine the best type and/or size of implant(s) to be used (see for example paragraph [0081] of the patent specification).

2. **Admissibility of the appeal**

2.1 The statement of grounds of appeal provides, for example in points 12-13 and 30-32, reasons for setting aside the appealed decision which explicitly address the reasoning provided in that decision.

2.2 For this reason alone, the statement of grounds of appeal complies with the requirements of Rule 99(2) EPC. Hence the appeal is admissible.

3. **Admissibility of the opposition**

3.1 The respondents requested that the opposition be found inadmissible. They essentially argued that the identity of the opponent as indicated in the notice of opposition could not be established without any doubt. As the opposition had been rejected in the decision under appeal, the principle of the prohibition of *reformatio in peius* was not affected when considering the opposition inadmissible.

3.2 The appellant essentially argued that the respondents were not permitted to raise the inadmissibility of the

opposition within the scope of the opponent's appeal. In substance, the identity of the opponent as indicated in the notice of opposition could be established without any doubt.

- 3.3 The Opposition Division informed the parties by its communication dated 15 April 2016 that it granted the request for correction of the opponent's name in the notice of opposition under Rule 139 EPC and that it considered the opposition admissible. Subsequently, the Opposition Division corrected the name of the appellant and did not allow a separate appeal on this decision under Article 106(2) EPC.
- 3.4 If one considers the admissibility of the opposition as an indispensable procedural requirement which must be taken into account at all stages of the appeal proceedings (see the parallel case T 882/17, Reasons 3.18.5), this issue falls already for this reason within the scope of the present appeal. In any case, as the Opposition Division did not allow a separate appeal under Article 106(2) EPC on the decision on the admissibility of the opposition contained in the communication dated 15 April 2016, that decision could only be appealed together with the Opposition Division's final decision. Hence, even if one does not consider the admissibility of the opposition as such an indispensable procedural requirement, it follows from this link that the Opposition Division's decision on the admissibility of the opposition and the underlying reasoning is to be treated as an issue which is part of the Opposition Division's final decision.
- 3.5 Under the principle of the prohibition of *reformatio in peius* it is unlawful to worsen the position of the

appellant because of its own appeal. The principle of the prohibition of *reformatio in peius* does, however, not apply separately to each point or issue decided (Case Law of the Boards of Appeal, 10th edition 2022, V.A.3.1.1). The yardstick for determining whether the position of an appellant, because of its own appeal, is worsened in a way which is incompatible with the principle of the prohibition of *reformatio in peius* is the order of the decision under appeal, in particular the order's legal effect on the appellant (see T 1437/15, Reasons 3.2.2, with reference to G 9/92, Reasons 14 and 16). If an opposition is considered inadmissible in the appeal proceedings, an appellant whose opposition was rejected in the decision under appeal as unallowable would not be in a worse position than if it had not appealed, as in both cases the patent would be maintained as granted. The legal reasons leading to this result, including whether the opposition is rejected as inadmissible or unallowable, do not fall within the scope of the principle of the prohibition of *reformatio in peius* (see T 384/08, Reasons 2 and 3, first sentence).

3.6 In the present case, the admissibility of the opposition can therefore be considered regardless of whether or not this issue is considered as being subject to the principle of the prohibition of *reformatio in peius*. With regard to the latter, reference is made to the parallel case T 882/17 in which the opponent was also the sole appellant, but in which the decision under appeal was an interlocutory decision of the Opposition Division maintaining the patent in amended form (see T 882/17, Reasons 3).

3.7 In substance, the respondents argued that there had been multiple options and therefore reasonable doubts

as to the identity of the opponent which had excluded a correction of the opponent's name under Rule 139 EPC. The Board does not agree.

- 3.7.1 Firstly, the allegation that "Calibre Search", at the given address, could also refer to a natural person or other legal forms such as a partnership is merely speculative and not supported by any evidence.
- 3.7.2 Secondly, as stated by the Opposition Division, it is apparent from the opponent's name in the notice of opposition as filed ("Calibre Search") that only the legal form was omitted. Once the name is considered together with the missing legal form, it can only refer to "Calibre Search Ltd." and not, as alleged by the respondents, also to "Calibre Search (Manchester) Ltd.". In the latter case, the name without the legal form would have been "Calibre Search (Manchester)", rather than "Calibre Search".
- 3.7.3 Thirdly, it is clear that the name "Calibre Search" refers to a single company. There is no indication that this term could refer to a multitude of companies acting as joint opponents, as was alleged by the respondents.
- 3.7.4 Fourthly, the opponent's representative's submission of 22 October 2015 only reflects that the representative, upon being confronted with the proprietor's observations on the opposition and being unaware that a second company was registered at the same address, verified the facts with his client prior to submitting a request for correction. Hence the statement according to which matters were clarified bears no relevance for assessing whether the identity of the opponent could be established or not.

- 3.8 The correction of the opponent's name thus introduced what was originally intended. The correction was also filed without delay, which was not disputed by the respondents.
- 3.9 In conclusion, the Opposition Division's decision to correct the opponent's name under Rule 139 EPC was correct, as well as its decision to consider the opposition admissible. The identity of the opponent could be established on the basis of the information in the notice of opposition.
4. **Admittance of the objection of added subject-matter**
- 4.1 The statement of grounds of appeal was filed before 1 January 2020 and is thus subject to Article 12(4) RPBA 2007 (Article 25(2) RPBA 2020). As Article 12(4) RPBA 2007 explicitly refers to Article 12(2) RPBA 2007, the latter is applicable by way of reference (i.e. as part of Article 12(2) RPBA 2007) as well (T 460/19, Reasons 2; T 2117/18, Reasons 2.2.1).
- 4.2 It is uncontested that points 4-8 of the statement of grounds of appeal essentially repeat the objection of added subject-matter raised in points 4-8 of the notice of opposition. Under point 11.2 of the decision under appeal the Opposition Division gives reasons why it was not convinced by this objection. The statement of grounds of appeal does not address the reasons provided in this point of the appealed decision, either explicitly or implicitly. It follows that this objection is not substantiated within the meaning of Article 12(2) RPBA 2007. Therefore the Board decided to disregard it under Article 12(4) RPBA 2007.

4.3 The Board also points out in this context that the primary object of the appeal proceedings is to review the decision under appeal in a judicial manner (Article 12(2) RPBA 2020), and not to provide a second opinion on a certain matter as alleged by the appellant.

5. Admittance of A1 and A2

5.1 Documents A1 and A2 were filed after notification of the summons to oral proceedings. A1 and A2 concern new evidence and facts, and their filing is an amendment to the appellant's appeal case. Hence their admittance is subject to Article 13(2) RPBA 2020.

5.2 The appellant submitted that the evidence served to explain why certain features of claim 1 should be interpreted broadly. However, the breadth of said features had not previously been disputed. Moreover, the appellant did not explain why these documents, which are from 1999 and October 2020, had only been filed in May 2022, i.e. one month prior to the oral proceedings before the Board.

5.3 There are thus no exceptional circumstances within the meaning of Article 13(2) RPBA 2020 justifying taking documents A1 and A2 into account. Hence the Board did not admit them into the appeal proceedings.

6. Novelty over E1

6.1 E1 relates to a method for computer-aided navigation and/or treatment planning. It teaches providing a generic model of a body structure and adapting the model to a specific patient (see paragraphs [0007], [0009] and [0022]-[0028]).

- 6.2 Paragraph [0013] of E1 discloses that the generic model may also include "a statistical model of the body structure". It is disputed whether this anticipates a "statistical shape model" within the meaning of claim 1.
- 6.3 The term "statistical shape model" is understood by a person skilled in the art of medical image processing as relating to a shape model which also includes variation information. This meaning is not only the common meaning in the art but also the one indicated in paragraph [0011] of the patent specification.
- 6.4 A statistical shape model is thus a specific type of statistical model. Hence the (generic) statistical model disclosed in paragraph [0013] of E1 does not anticipate the statistical shape model of claim 1.
- 6.5 Claim 1 requires that the statistical shape model incorporate "*data representing at least a part of a planned surgical procedure to be carried out on a corresponding real body part of the patient*" (hereinafter "planning data").
- 6.6 E1 discloses that the generic model may include a statistical model (paragraph [0013]) and a model in the form of geometric data which can be "*angles and/or trajectory information which can be displayed for the physician and for example indicate to him the ideal position of an implant*" (paragraph [0015]). The geometric data can be regarded as anticipating the planning data of claim 1. However, E1 does not disclose that the geometric data is incorporated in the statistical model.

6.7 The appellant argued that claim 1 did not require the planning data and the shape/anatomical data to be separate items. Hence the anatomical data provided within the statistical model in E1 also anticipated the planning data.

6.8 Indeed, the planning data is not further specified in claim 1. The location of specific anatomical points may play an important role when planning a surgery, as also acknowledged in the patent specification (see for example paragraphs [0042]-[0044] and [0064]). The Board thus agrees that claim 1 does not exclude the possibility of the planning data corresponding to anatomical points.

6.9 However, E1 does not disclose that the statistical model of paragraph [0013] includes any anatomical points identified as being relevant for surgery. The fact that specific anatomical points are potentially relevant for planning a surgery does not imply that an anatomical model inherently comprises planning data within the meaning of claim 1. Hence the statistical model of E1 cannot be regarded as incorporating planning data.

6.10 In summary, E1 discloses neither a statistical shape model nor that the statistical model of paragraph [0013] incorporates planning data. It follows that the subject-matter of claim 1 is novel over E1 (Article 54 EPC).

7. Admittance of the novelty objection over E2

7.1 The objection of lack of novelty over E2 has not been substantiated and was therefore not validly submitted (T 2117/18, Reasons 2.2.17). In particular, the

appellant did not refer to any specific part or passage of E2 which might disclose the subject-matter of claim 1. Therefore the Board decided to disregard this objection (Article 12(2) and (4) RPBA 2007).

8. **Inventive step**

- 8.1 It is disputed whether the subject-matter of claim 1 involves an inventive step over E1 and common general knowledge.
- 8.2 Use of a statistical shape model (first distinguishing feature) also incorporating planning data (second distinguishing feature) allows anatomical variations in both shape and surgical planning to be accounted for (see paragraph [0035] of the patent specification).
- 8.3 The appellant argued that there was no evidence that this would lead to an improved surgical plan in the method of claim 1.
- 8.4 Even if the appellant's submission that the subject-matter of claim 1 did not lead to an improvement over the method taught by E1 were to be accepted, the problem to be solved by the two distinguishing features would be to provide an alternative model to the model used in E1.
- 8.5 E1 does not mention a statistical shape model, let alone suggest its use as an alternative model. Moreover, even if a person skilled in the art using common general knowledge were to consider using a statistical shape model as the statistical model of E1 and adapt the model creation and adaptation/instantiation accordingly, E1 does not suggest incorporating the planning data into this model. This

incorporation would additionally require variation information for the planning data, information which is not mentioned in E1.

8.6 Hence the person skilled in the art starting from the method of E1 and wanting to provide an alternative model would not arrive at a method as defined by claim 1 using common general knowledge. It follows that the subject-matter of claim 1 is inventive (Article 56 EPC).

8.7 An objection of lack of inventive step starting from document E2 was only referred to in the heading on page 8 of the statement of grounds of appeal. Lacking substantiation, this objection was disregarded under Article 12(2) and (4) RPBA 2007.

9. Conclusion

9.1 Since none of the appellant's objections prejudices maintenance of the patent as granted, the appeal is to be dismissed.

Order

For these reasons it is decided that:

The appeal is dismissed.

The Registrar:

The Chair:



D. Hampe

M. Alvazzi Delfrate

Decision electronically authenticated