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**Datasheet for the decision
of 6 May 2021**

Case Number: T 2726/16 - 3.4.03

Application Number: 11179373.3

Publication Number: 2431931

IPC: G06Q10/00, G06Q50/00

Language of the proceedings: EN

Title of invention:
Managing fuel in aircraft

Applicant:
The Boeing Company

Headword:

Relevant legal provisions:
EPC Art. 52(1), 54(1), 54(2), 83, 84
RPBA Art. 12(4)
RPBA 2020 Art. 13(2)

Keyword:
Novelty - (no)
Claims - clarity (no)
Sufficiency of disclosure - clarity of disclosure - enabling
disclosure (no)

Decisions cited:

Catchword:



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Case Number: T 2726/16 - 3.4.03

D E C I S I O N
of Technical Board of Appeal 3.4.03
of 6 May 2021

Appellant: The Boeing Company
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Representative: Witte, Weller & Partner Patentanwälte mbB
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Decision under appeal: **Decision of the Examining Division of the
European Patent Office posted on 14 July 2016
refusing European patent application No.
11179373.3 pursuant to Article 97(2) EPC.**

Composition of the Board:

Chairman T. Häusser
Members: J. Thomas
G. Decker

Summary of Facts and Submissions

I. The appeal is against the examining division's decision refusing European patent application No. 11 179 373.

II. The refusal was based on the grounds that the subject-matter defined in the claims of the main request and the first and second auxiliary requests did not fulfil the requirements of Article 52(1) EPC in combination with Article 56 EPC in view of the following document:

D1: US 2010/0076672 A1

In line with Rule 137(3) EPC the examining division did not admit the third to fifth auxiliary requests into the proceedings because they were found *prima facie* not to comply with Articles 83 and 84 EPC (third auxiliary request and former fourth auxiliary request, which corresponds to the current fifth auxiliary request) or with Article 52(1) EPC in combination with Article 56 EPC (former fifth auxiliary request, which corresponds to the current fourth auxiliary request).

III. Oral proceedings were held before the board. At the end the appellant requested that:

- the decision under appeal be set aside and
- a patent be granted on the basis of the claims according to the main request or one of the first to fifth auxiliary requests, all of which were filed with the statement setting out the grounds of appeal, or according to the sixth auxiliary request filed with the letter dated 30 March 2021.

IV. Claim 1 according to the main request reads as follows:

A method for managing an aircraft (104, 400) running on a computer system (110, 112, 414), the method comprising:

identifying (600) data (124) about components (126) for the aircraft (104, 400) by obtaining the data (124) about the components (126) from a sensor system (128, 416) associated with the aircraft (104, 400);

identifying (602) fuel efficiency of the aircraft (104, 400) using the data (124) about the components (126) for the aircraft (104, 400) and a model of the aircraft (104, 400), wherein the model of the aircraft (104, 400) identifies fuel use, wherein the fuel efficiency identified for the aircraft (104, 400) is an actual fuel efficiency of the aircraft (104, 400) as compared to a predicted fuel efficiency that is identified using the model of the aircraft, wherein the data (124) is used to identify the actual fuel efficiency, wherein the actual fuel efficiency is identified in substantially real-time and is continuously updated; and

managing (604) the aircraft (104, 400) using the fuel efficiency identified for the aircraft.

V. Claim 1 according to the first auxiliary request reads as follows:

A method for managing an aircraft (104, 400) running on a computer system (110, 112, 414), the method comprising:

identifying (600) data (124) about components (126) for the aircraft (104, 400) during flight of the aircraft (104, 400) by obtaining the data (124) about the components (126) from a sensor system (128, 416) associated with the aircraft (104, 400);

identifying (602) fuel efficiency of the aircraft (104, 400) using the data (124) about the components

(126) for the aircraft (104, 400) and a model of the aircraft (104, 400), wherein the model of the aircraft (104, 400) identifies fuel use, wherein the fuel efficiency identified for the aircraft (104, 400) is an actual fuel efficiency of the aircraft (104, 400) as compared to a predicted fuel efficiency that is identified using the model of the aircraft, wherein the data (124) is used to identify the actual fuel efficiency, wherein the actual fuel efficiency is identified in substantially real-time and is continuously updated; and

managing (604) the aircraft (104, 400) using the fuel efficiency identified for the aircraft, wherein the step of managing (604) the aircraft (104, 400) using the fuel efficiency identified for the aircraft (104, 400) comprises identifying whether maintenance is needed based on the fuel efficiency identified for the aircraft (104, 400),

wherein the step of identifying whether the maintenance is needed based on the fuel efficiency identified for the aircraft (104, 400) comprises:

identifying fuel efficiency indices (148) for the components (126);

comparing the fuel efficiency indices (148) for the components (126) with expected fuel efficiency indices (148) for the components (126) to form a comparison; and

responsive to a particular fuel efficiency index in the fuel efficiency indices (148) for a component (126) varying from a corresponding fuel efficiency index in the fuel efficiency indices (148) for the component (126), indicating that maintenance is needed for the component (126).

VI. Claim 1 according to the second auxiliary request reads as follows:

A method for managing an aircraft (104, 400) running on a computer system (110, 112, 414), the method comprising:

identifying (600) data (124) about components (126) for the aircraft (104, 400) during flight of the aircraft (104, 400) by obtaining the data (124) about the components (126) from a sensor system (128, 416) associated with the aircraft (104, 400), wherein the data (126) is about aircraft factors (304), wherein the aircraft factors are amount of fuel, amount of payload, configuration of a surface of the aircraft, drag of the aircraft, condition of the surface of the aircraft and engine performance;

identifying (602) fuel efficiency of the aircraft (104, 400) using the data (124) about the components (126) for the aircraft (104, 400) and a model of the aircraft (104, 400), wherein the model of the aircraft (104, 400) identifies fuel use, wherein the fuel efficiency identified for the aircraft (104, 400) is an actual fuel efficiency of the aircraft (104, 400) as compared to a predicted fuel efficiency that is identified using the model of the aircraft, wherein the data (124) is used to identify the actual fuel efficiency, wherein the actual fuel efficiency is identified in substantially real-time and is continuously updated; and

managing (604) the aircraft (104, 400) using the fuel efficiency identified for the aircraft,

wherein the step of managing (604) the aircraft (104, 400) using the fuel efficiency identified for the aircraft (104, 400) comprises identifying whether maintenance is needed based on the fuel efficiency identified for the aircraft (104, 400),

wherein the step of identifying whether the maintenance is needed based on the fuel efficiency identified for the aircraft (104, 400) comprises:

identifying fuel efficiency indices (148) for the components (126);

comparing the fuel efficiency indices (148) for the components (126) with expected fuel efficiency indices (148) for the components (126) to form a comparison; and

responsive to a particular fuel efficiency index in the fuel efficiency indices (148) for a component (126) varying from a corresponding fuel efficiency index in the fuel efficiency indices (148) for the component (126), indicating that maintenance is needed for the component (126).

VII. Claim 1 according to the third auxiliary request reads as follows:

A method for managing an aircraft (104, 400) running on a computer system (110, 112, 414), the method comprising:

identifying (600) data (124) about components (126) for the aircraft (104, 400) during flight of the aircraft (104, 400) by obtaining the data (124) about the components (126) from a sensor system (128, 416) associated with the aircraft (104, 400), wherein the data (124) is about aircraft factors (304), wherein the aircraft factors are amount of fuel, amount of payload, configuration of a surface of the aircraft, drag of the aircraft, condition of the surface of the aircraft and engine performance; and wherein the components include an engine and a body of the aircraft (104, 400);

identifying (602) fuel efficiency of the aircraft (104, 400) using the data (124) about the components (126) for the aircraft (104, 400) and a model of the

aircraft (104, 400), wherein the model of the aircraft (104, 400) identifies fuel use, wherein the fuel efficiency identified for the aircraft (104, 400) is an actual fuel efficiency of the aircraft (104, 400) as compared to a predicted fuel efficiency that is identified using the model of the aircraft, wherein the data (124) is used to identify the actual fuel efficiency, wherein the actual fuel efficiency is identified in substantially real-time and is continuously updated; and

managing (604) the aircraft (104, 400) using the fuel efficiency identified for the aircraft,

wherein the step of managing (604) the aircraft (104, 400) using the fuel efficiency identified for the aircraft (104, 400) comprises identifying whether maintenance is needed based on the fuel efficiency identified for the aircraft (104, 400),

wherein the step of identifying whether the maintenance is needed based on the fuel efficiency identified for the aircraft (104, 400) comprises:

identifying fuel efficiency indices (148) for the components (126);

comparing the fuel efficiency indices (148) for the components (126) with expected fuel efficiency indices (148) for the components (126) to form a comparison; and

responsive to a particular fuel efficiency index in the fuel efficiency indices (148) for a component (126) varying from a corresponding fuel efficiency index in the fuel efficiency indices (148) for the component (126), indicating that maintenance is needed for the component (126).

VIII. Claim 1 according to the fourth and fifth auxiliary requests is based on claim 1 of the second and third auxiliary requests, respectively, with the following

expression (emphasised here in bold) added in the preamble of the claims: "A method for managing an aircraft (104, 400) **by a process** running on a computer system (110, 112, 414), the method comprising ..."

IX. Claim 1 according to the sixth auxiliary request reads as follows:

A method for managing an aircraft (104, 400), the method running on a computer system (110, 112, 414), the method comprising:

identifying (600) data (124) about a component (126) for the aircraft (104, 400) during flight of the aircraft (104, 400) by obtaining the data (124) about the component (126) from a sensor system (128, 416) associated with the aircraft (104, 400), wherein the data (124) is about aircraft factors (304), wherein the aircraft factors are a configuration of a surface of the aircraft, drag of the aircraft and condition of the surface of the aircraft, wherein the component (126) of the aircraft (104, 400) is a body of the aircraft, wherein the configuration of the surface of the aircraft is a deployment of flaps, wherein the condition of the surface of the aircraft is whether the aircraft has been cleaned;

identifying (602) fuel efficiency of the aircraft (104, 400) using the data (124) about the component (126) for the aircraft (104, 400) and a model of the aircraft (104, 400), wherein the model of the aircraft (104, 400) identifies fuel use, wherein the fuel efficiency identified for the aircraft (104, 400) is an actual fuel efficiency of the aircraft (104, 400) as compared to a predicted fuel efficiency that is identified using the model of the aircraft, wherein the data (124) is used to identify the actual fuel efficiency, wherein the actual fuel efficiency is

identified in substantially real-time and is continuously updated; and

managing (604) the aircraft (104, 400) using the fuel efficiency identified for the aircraft,

wherein the step of managing (604) the aircraft (104, 400) using the fuel efficiency identified for the aircraft (104, 400) comprises identifying whether maintenance is needed based on the fuel efficiency identified for the aircraft (104, 400),

wherein the step of identifying whether the maintenance is needed based on the fuel efficiency identified for the aircraft (104, 400) comprises:

identifying a fuel efficiency index (148) for the component (126), wherein the fuel efficiency index is continuously generated to continuously indicate whether the actual fuel efficiency is better, about the same, or worse than the predicted fuel efficiency;

comparing the fuel efficiency index (148) for the component (126) with an expected fuel efficiency index (148) for the component (126) to form a comparison; and

responsive to the fuel efficiency index in the fuel efficiency index (148) varying from a corresponding fuel efficiency index (148) for the component (126), indicating that maintenance is needed for the component (126).

X. The examining division's main reasons for refusing the main and first to fifth auxiliary requests are summarised as follows:

- Main request: the subject-matter defined in claim 1 was considered novel over the teaching of document D1, which did not disclose using a "relative value" for fuel consumption. However, using relative values as opposed to absolute values as disclosed in document D1 was not inventive because changing

from absolute values to relative values was obvious for the skilled person.

- First auxiliary request: the examining division interpreted the wording of the claims in its broadest sense, i.e. to the extent that the claimed "components" covered the aircraft engines. On that basis, the examining division considered that the claimed method was not carried out entirely by the computer but possibly with the intervention of a human being. Since human interventions could not contribute to an inventive step due to their non-technical nature, the claimed subject-matter was not considered inventive.
- Second auxiliary request: the additional feature related to "aircraft factors" also included factors known from document D1. Therefore the non-specific use of data on aircraft factors could not contribute to an inventive step over the teaching of document D1, which covered at least some of these aircraft factors.
- Third auxiliary request: determining the fuel efficiency index in relation to drag was *prima facie* not considered clear or sufficiently disclosed in the application documents. Neither the description in general nor any of the embodiments gave clear instructions on how to relate the drag and changes in the drag to the fuel efficiency index.
- Fourth and fifth auxiliary requests: the features of the amendments in these requests were already implicitly considered in the second and third requests, so the objections raised for the second

and third auxiliary requests also applied to the fourth and fifth auxiliary requests.

XI. The appellant argued essentially as follows:

- Main request - novelty: the "fuel consumption" in document D1 should be construed as having a special meaning of an absolute value of a volume. This was confirmed by paragraph [0030] of document D1, which disclosed a double-check of the "fuel consumption" using an absolute value, namely the "quantity of fuel that is actually present on board". Moreover, the various sensors mentioned for measuring the relevant parameters measured only absolute parameters (D1: [0020]). Therefore the "fuel consumption" as used in document D1 could only be understood as being an absolute value, as opposed to the "fuel efficiency" used in the application in hand. In addition, document D1 generally suggested considering only absolute values like "the amount of fuel left", whereas the application at issue made use of relative values. The advantage of calculating ratios instead of differences was that a value independent of absolute values and units was obtained. This could not be derived from the teaching of document D1, so the subject-matter defined in claim 1 of this request was novel.

- First and second auxiliary requests - clarity and sufficiency: the wording of the claims was clear to the skilled person reading them in the general context of the application. The skilled person was aware that maintenance should be managed using fuel efficiency and that the wording of the claim foresaw a two-step comparison: a first step of calculating the overall fuel efficiency index on

the basis of the measured fuel consumption compared with the theoretical one, and then a second step of differentiating between the different components under consideration and their individual fuel efficiencies to determine the component which needed maintenance. The disclosure was also sufficiently clear and complete in relation to claim 1 of both requests because the components were specified in the claims. Therefore, how to proceed in order to implement the claimed method should be evident for the skilled person. Calculating a fuel efficiency index was disclosed in paragraph [0041] and in the second step in paragraphs [0037], [0051], [0069] to [0071] and [0097] in combination with Figure 7 of the originally filed documents.

- Third to fifth auxiliary requests - admission: even though the way in which the examining division exercised its discretion has not been questioned, these requests have been resubmitted in the appeal proceedings in order to be admitted by the board under Article 12(4) RPBA 2007, which applies here pursuant to Article 25(2) RPBA 2020. The novelty objection against the main request, the clarity and sufficiency objections against the first and second auxiliary requests and the combination of these objections were not predictable. In addition, the objections against the higher-ranking requests were raised rather late during the examination proceedings. The examining division did not introduce the written state of the art (*inter alia* document D1) until the stage of preparation for oral proceedings together with the corresponding objections. Therefore, the appellant did not have the chance to react until the oral proceedings

before the examining division. The appellant had little time to select the subject-matter it would use to further limit the claims in order to submit requests with converging subject-matter. In view of this particular situation the appellant should be able to provide allowable requests and discuss them in detail in order to respond appropriately.

- Sixth auxiliary request - admission: since the converging third to fifth auxiliary requests were unsuccessful due to their late submission during the first-instance proceedings, the appellant should be able to file a further auxiliary request as a fall-back position. The appellant based the sixth auxiliary request on the second auxiliary request in order to avoid any clarity objections. The new limitation to only one component, namely "the body of the aircraft", was expected to lead to an allowable request. In addition, on the basis of the examining division's decision the appellant could not foresee that the board would object to the first and second auxiliary requests under Articles 83 and 84 EPC. Therefore, even at this late stage in the proceedings, the appellant should be given an opportunity to submit an allowable set of claims.

Reasons for the Decision

1. Main request

1.1 Lack of novelty

- 1.1.1 The subject-matter defined in claim 1 of the main request is anticipated by the teaching of document D1.

Document D1 discloses a method for managing an aircraft running on a computer system (title; first sentence of abstract), the method comprising:

identifying data about components for the aircraft (e.g. the engine and the related consumed fuel) by obtaining the data about the components from a sensor system associated with the aircraft ([0019] and [0020]);

identifying fuel consumption of the aircraft using the data about the components for the aircraft ([0020]) and a model of the aircraft ([0021]), wherein the model of the aircraft identifies fuel use ([0066] and Figure 1), wherein the fuel consumption identified for the aircraft is an actual fuel consumption of the aircraft ([0020]) as compared to a predicted fuel consumption ([0021]) that is identified using the model of the aircraft ([0011] and [0021]), wherein the data is used to identify the actual fuel consumption ([0020] and [0021]), wherein the actual fuel consumption is identified in substantially real-time and is continuously updated ([0024] and [0066]); and

managing the aircraft using the fuel consumption identified for the aircraft ([0010] and [0015]).

Consequently, the features defined in claim 1 of the main request are explicitly known from document D1, apart from the fact that claim 1 specifies "fuel efficiency" whereas document D1 discloses "fuel consumption". However, both expressions are well-established technical terms and refer to the same technical content, i.e. the amount of fuel used in proportion to a travelled distance. This fact is confirmed by the definition of "fuel efficiency" provided by the Collins English Dictionary (definition of "fuel efficiency": "the (least) amount of fuel used

in proportion to the number of miles travelled") or under the Wikipedia entry "Fuel efficiency".

- 1.1.2 The appellant's arguments could not convince the board for the following reasons.

Document D1 relates to the fuel management of an aircraft and refers to the "fuel consumption" and/or a "true actual fuel consumption", which are both well-established technical terms. The term "fuel consumption" is the amount of fuel used per unit of distance and is one way of expressing the fuel efficiency. The appellant did not question the meaning of these well-established technical terms.

As such, the term "fuel consumption" has a clear and precise technical definition. There is no hint in document D1 or any other reason to interpret the expression "fuel consumption" used in document D1 any differently. If this were the case, it would likely have been clearly indicated in document D1. Neither the types of sensors nor the calculation of differences rules out the well-established technical meaning of "fuel consumption". The "double-check" hinted at in paragraph [0030] of document D1 does not contradict it either because the absolute volume of consumed fuel necessary for the double-check can be readily determined from the "fuel consumption" values along the flight trajectory and the distance travelled. As document D1 gives no clear indication of any meaning of this term other than its well-established meaning, the board is of the opinion that it should not be understood differently.

With regard to the appellant's further argument that the application at issue concerns comparing relative

values by calculating ratios instead of differences, the board notes that the wording of claim 1 is silent as to how the actual fuel efficiency is compared with the predicted fuel efficiency. Therefore, the wording allows for any technically reasonable comparison method. When comparing two values, calculating differences is as common as calculating ratios, but neither of these appears to be implied in the situation in hand. Furthermore, it is noted that document D1 is not limited solely to calculating differences - this is cited only as an example (see D1: paragraph [0021]).

- 1.1.3 Consequently, the subject-matter of claim 1 of the main request is not novel in view of document D1 (Articles 52(1) and 54(1) and (2) EPC).

2. First and second auxiliary requests

2.1 Article 84 EPC

- 2.1.1 The wording of claim 1 of the first and second auxiliary requests is not clear for the following reasons.

Claim 1 of both requests specifies that "fuel efficiency indices" are identified for the "components" (line 21 of claim 1 of the first auxiliary request and line 24 of claim 1 of the second auxiliary request). A "fuel efficiency index" is neither a known technical term nor does it have any well-established technical meaning. It is therefore unclear what exactly is meant by the "fuel efficiency indices" and how these indices are to be identified. The claims are silent as to any definition or clarification of this term.

Besides the step of "identifying fuel efficiency indices", it is also unclear what is meant by "expected fuel efficiency indices" and which values should be compared in the method steps defined in lines 22 to 24 of claim 1 of the first auxiliary request and lines 25 to 27 of claim 1 of the second auxiliary request.

The appellant argued that even though the requests might not be perfectly formulated, the wording of claim 1 of both requests was sufficiently clear to the skilled person. In response to the first comparison between the measured and the theoretical fuel efficiency values, the fuel efficiency indices were to be determined and related to maintenance. The claims clearly specified the two-stage comparison, starting with the fuel efficiency comparison between measured and theoretical values and followed by the fuel efficiency index comparison, which was used to evaluate the different components (i.e. the engine, the body, a flight control surface such as a flap or a wing or other suitable types of components of the aircraft) and determine which needed maintenance.

However, the board notes that according to established case law of the boards of appeal (*Case Law of the Boards of Appeal*, 9th Edition, 2019, II.A.3.1), a claim must be clear in itself when read by the person skilled in the art without any reference to the content of the description. The specified features must be clear from the wording of the claim alone.

This is not the case for the wording of the claims under discussion because it does not give any indication about either the exact meaning of a "fuel efficiency index" or how any such index should be identified. Furthermore, there is no indication about

how to determine the "expected fuel efficiency indices" or how to compare the identified indices with the expected indices. It remains vague and unclear how to interpret the defined subject-matter and how to determine whether or not maintenance is needed.

- 2.1.2 In light of this, claim 1 of both the first and the second auxiliary requests is unclear, contrary to the requirements of Article 84 EPC.

2.2 Article 83 EPC

- 2.2.1 The board concludes that the wording of claim 1 of the first and second auxiliary requests does not give a clear indication of how to identify the fuel efficiency indices or sufficient indications of how to compare them with expected fuel efficiency indices.

The necessary explanations cannot be found in the description or the drawings either. In particular, it remains unclear how to identify the "fuel efficiency indices for the components", the "expected fuel efficiency indices", "the particular efficiency index" and "the corresponding efficiency index".

The potentially relevant paragraphs in this respect, namely paragraph [0037] (indicating the components), paragraph [0041] (indicating the comparison of the fuel efficiency in order to generate the fuel efficiency index), paragraph [0051] in combination with Figure 7 (indicating that maintenance is needed on the basis of the fuel efficiency index) or paragraphs [0069] to [0071] (relating the components to the indices and the maintenance), do not contain any clear instructions for determining the various fuel efficiency indices. Moreover, the disclosure of the application as a whole

is not sufficient to teach the skilled person how to identify the different fuel efficiency indices, relate them to a single fuel efficiency measure and know when maintenance is needed, especially where several indices related to a number of aircraft components. The only paragraph concerning the definition of a fuel efficiency index (paragraph [0041]) merely provides an instruction for a single overall fuel efficiency index that does not refer to a specific component. This paragraph does not give the skilled person any instructions on how to relate this fuel efficiency index derived from measured values to several indices for a number of components of the aircraft. Even in view of the indications in paragraph [0041], the disclosure of the description, the claims and the drawings is not sufficient to allow the skilled person to implement the method steps defined in lines 21 to 28 of claim 1 of the first auxiliary request and lines 24 to 31 of claim 1 of the second auxiliary request.

2.2.2 The appellant attempted to argue how the skilled person should understand the claimed subject-matter, but failed to provide clear instructions in the application documents for carrying out the defined method. Neither the description in general nor any specific embodiment gives clear indications of how to implement the claimed method. The appellant did explain the intended method steps in the statement setting out the grounds of appeal and orally at the oral proceedings. However, this shows that this important information is missing from the originally filed application documents.

2.2.3 In view of the above, the application does not disclose the invention as claimed in claim 1 of the first and second auxiliary requests in a manner sufficiently

clear and complete for it to be carried out by a person skilled in the art (Article 83 EPC).

3. Third to fifth auxiliary requests - admission

3.1 The third to fifth auxiliary requests were filed for the first time during the oral proceedings before the examining division (the order of the fourth and fifth auxiliary requests was merely switched). The examining division did not admit these requests into the proceedings under Rule 137(3) EPC for the following reasons.

Claim 1 of the third auxiliary request was found *prima facie* not allowable due to objections under Articles 83 and 84 EPC.

Claim 1 of the fourth and fifth auxiliary requests was amended compared with the second and third auxiliary requests, respectively, only by adding the feature "by a process" in the first clause of each claim 1 (see point VIII. above). In the examining division's view, this feature was already implicitly considered in the respective higher-ranking requests, so the objections raised for the second and third auxiliary requests *prima facie* also applied to the fourth and fifth auxiliary requests.

3.2 The appellant did not challenge the way in which the examining division exercised its discretion, but resubmitted these requests with the statement setting out the grounds of appeal in order for them to be reconsidered by the board in the proceedings pursuant to Article 12(4) RPBA 2007, which applies here under Article 25(2) RPBA 2020.

3.3 The board notes that the third to fifth auxiliary requests were filed at a very late stage during the

first-instance proceedings. Consequently, the examining division correctly considered these requests in a *prima facie* analysis in order to decide whether or not they should be admitted into the proceedings. The examining division concluded that these claims were *prima facie* not allowable and consequently did not admit them into the proceedings under Rule 137(3) EPC. Therefore, the examining division exercised its discretionary powers appropriately and according to the correct criteria and thus did not exceed its discretionary powers. The appellant did not contest this.

As to the appellant's arguments concerning the admission of these three requests, it is noted that even though the objections against them were not raised until the oral proceedings before the examining division since they were submitted for the first time at the oral proceedings, the reasons for not admitting them were correctly considered. Moreover, the facts and evidence concerning the higher-ranking requests were known to the appellant before the oral proceedings, so it had sufficient time to assess its position and act accordingly, in particular by filing further requests as fall-back positions.

Therefore, the board is of the opinion that the examining division's decision not to admit these requests into the proceedings should not be reversed. Furthermore, the board does not see any reason to exercise its own discretion any differently.

Consequently, the third to fifth auxiliary requests are not admitted into the appeal proceedings (Article 12(4) RPBA 2007, which applies here under Article 25(2) RPBA 2020).

3.4 It is mentioned as an *obiter dictum* that the objections raised with respect to the first and second auxiliary requests still apply to the third to fifth auxiliary requests since none of the amendments to these requests concerned the subject-matter which had been objected to, namely the identification and comparison related to the various indices, which are neither clearly defined in the claims nor disclosed in a manner sufficiently clear and complete for the claimed subject-matter to be carried out. Therefore, even if the board had admitted these three requests into the appeal proceedings, they would not have been considered allowable.

4. Sixth auxiliary request - admission

4.1 The appellant submitted the sixth auxiliary request in response to the communication under Article 15(1) RPBA 2020 and it therefore constitutes an amendment to the appellant's appeal case. That being the case, Article 13(2) RPBA 2020 applies, according to which "[a]ny amendment to a party's appeal case made ... shall, in principle, not be taken into account unless there are exceptional circumstances, which have been justified with cogent reasons by the party concerned".

The board cannot identify any exceptional circumstances. In particular, the board's different opinions on the main request and the first and second auxiliary requests compared with the examining division cannot be deemed exceptional circumstances.

First, the board does not deviate from the overall outcome regarding the main request and the first and second auxiliary requests, all three of which are assessed negatively by both the examining division and the board.

With respect to the main request, the board based its opinion on the same evidence as the examining division, namely document D1. The fact that the board interpreted expressions used in document D1 differently should not be surprising to the appellant as this may well happen in appeal proceedings and the appellant should therefore anticipate it. In addition, the legal consequence remains the same (main request is not allowable under Article 52(1) EPC).

The board's objections raised with respect to the first and second auxiliary requests were already mentioned in essence by the examining division in relation to the third auxiliary request (see points 6.3 and 6.4 of the reasons in the contested decision). The content of the objections is thus not new; the board has merely applied known objections more strictly to higher-ranking requests. The appellant should therefore have considered the possibility that the objections under Articles 83 and 84 EPC mentioned by the examining division in relation to the third auxiliary request might also apply to the higher-ranking requests.

Therefore, the board's different opinions on the main request and the first and second auxiliary requests are not based on new objections and cannot represent exceptional circumstances.

With regard to the third to fifth auxiliary requests, the board adheres to the examining division's decision, so no exceptional circumstances can be relied on for these requests either.

Since the examining division refused the application on the basis of all requests available at that time, the

appellant had to expect from the outset of the appeal proceedings that the appeal might not be successful if it was based solely on these requests then on file. Consequently, the sixth auxiliary request should have been filed at the latest together with the statement setting out the grounds of appeal.

- 4.2 As regards the appellant's arguments, it is noted that the appellant referred in particular to the fact that the examining division's objections against the main request and the first and second auxiliary requests were not raised until shortly before the first-instance oral proceedings and the third to fifth auxiliary requests were submitted as a rash defence during those oral proceedings. Therefore, at the beginning of the appeal proceedings, the appellant relied on the defence of the requests then on file.

However, since the examining division's decision was negative with respect to all requests then on file, the applicant would have had particular reasons to file a further auxiliary request as early as with the statement setting out the grounds of appeal. In any case, the appellant should not have assumed that one of the requests then on file and rejected by the examining division would now be successful. Therefore, since no new facts or evidence emerged during the appeal proceedings, the board is of the opinion that no exceptional circumstances can be relied upon and in particular that the sixth auxiliary request should have been filed at the latest with the statement setting out the grounds of appeal.

- 4.3 Consequently, the board is of the opinion that no exceptional circumstances can be identified, let alone cogent reasons justifying them, and the sixth auxiliary

request is not to be taken into account under Article 13(2) RPBA 2020.

5. In conclusion, since the requests on file are either not allowable (main request, first and second auxiliary requests) or not admitted into the proceedings (third to sixth auxiliary requests), the appeal must be dismissed.

Order

For these reasons it is decided that:

The appeal is dismissed.

The Registrar:

The Chairman:



S. Sánchez Chiquero

T. Häusser

Decision electronically authenticated