

Internal distribution code:

- (A) [-] Publication in OJ
- (B) [-] To Chairmen and Members
- (C) [-] To Chairmen
- (D) [X] No distribution

**Datasheet for the decision
of 13 May 2022**

Case Number: T 2197/16 - 3.2.05

Application Number: 09750253.8

Publication Number: 2296858

IPC: B29B17/02, D21B1/02

Language of the proceedings: EN

Title of invention:

Method for recycling composite material

Patent Proprietor:

REPLAN GLOBAL SAGL

Opponent:

Tetra Laval Holdings & Finance SA

Relevant legal provisions:

EPC Art. 54, 56, 100(a), 100(b), 100(c), 106(3), 108 sentence
1

EPC R. 97(1), 99(1)(c)

RPBA Art. 12(4)

RPBA 2020 Art. 13(1), 13(2)

Keyword:

Novelty (yes) - implicit disclosure (no)
Inventive step (yes) - ex post facto analysis - problem and solution approach - non-obvious combination of known features
Grounds for opposition - insufficiency of disclosure (no) - subject-matter extends beyond content of earlier application (no) - added subject-matter (no) - lack of clarity no ground for opposition
Late-filed facts - submitted with the statement of grounds of appeal - submitted during oral proceedings - admitted (no)
Amendment after summons - exceptional circumstances (no) - taken into account (no)
Decision on apportionment of costs - not subject of the appeal proceedings

Decisions cited:

G 0009/92, G 0004/93, G 0001/99, G 0002/10, G 0003/14,
T 0753/92, T 0079/96, T 0596/96, T 0762/96, T 1011/01,
T 0653/03, T 0304/08, T 0689/09, T 0268/13, T 2111/13,
T 1601/15



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 2197/16 - 3.2.05

D E C I S I O N
of Technical Board of Appeal 3.2.05
of 13 May 2022

Appellant: Tetra Laval Holdings & Finance SA
(Opponent) Avenue Général Guisan 70
P.O. Box 430
1009 Pully (CH)

Representative: Müller Schupfner & Partner
Patent- und Rechtsanwaltspartnerschaft mbB
Bavariaring 11
80336 München (DE)

Respondent: REPLAN GLOBAL SAGL
(Patent Proprietor) Via Guido Calgari, 2
6900 Lugano (CH)

Representative: Gislon, Gabriele
Marietti, Gislon e Trupiano S.r.l.
Via Larga, 16
20122 Milano (IT)

Decision under appeal: **Decision of the Opposition Division of the
European Patent Office posted on 11 July 2016
rejecting the opposition filed against European
patent No. 2296858 pursuant to Article 101(2)
EPC.**

Composition of the Board:

Chairman P. Lanz
Members: M. Holz
T. Karamanli

Summary of Facts and Submissions

- I. The opponent's appeal is against the opposition division's decision rejecting the opposition to European patent No. 2 296 858 ("the patent") and ordering the patent proprietor to pay 100% of the costs of the oral proceedings scheduled for 23 February 2016 to the opponent under Article 104(1) EPC.
- II. With its notice of appeal dated 14 September 2016, the appellant (opponent) appealed against the decision of the opposition division, except in so far as it relates to costs. Its statement of grounds of appeal dated 18 November 2016 is silent on the issue of apportionment of costs.
- III. In its reply dated 3 April 2017, the respondent (patent proprietor) requested, *inter alia*, that the decision on costs be included in the subject of the appeal and that the discussion on this matter be reopened.
- IV. The summons to oral proceedings was issued on 21 May 2021. In a communication under Article 15(1) RPBA 2020 dated 24 February 2022, the board gave its preliminary opinion.
- V. The following documents referred to in the first-instance proceedings are relevant to this decision:

D1: EP 0 570 757 A1
D2: Neves et al.: "RECYCLING OF ALUMINUM AND POLYETHYLENE FROM TETRA PAK CARTON PACKAGES AS PLASTIC COMPOSITE", GPEC 2003, pp. 371-8.

D5: Handbook of Plastics Recycling, Rapra Technology Ltd., 2002, ISBN: 1-85957-325-8, pages iii to xii, 6, 95, 107, 109 to 111, 116 to 119 and 124.
D7: ISO 15270:2006

On 12 April 2022, the appellant submitted the following documents:

D11: H.R. Manouchehri: "Looking at Shredding Plant Configuration and Its Performance for Developing Shredding Product Stream (An Overview)", Jernkontoret Forskning, 03.09.2007, ISSN 0280-249X
D12: Wikipedia article "Schredder", Internet Archive webarchive, 13 September 2006
D13a: Webster's New International Dictionary of the English Language, Volume II, Second Edition, 1955, pages 2324 and 2325.
D13b: English-German Technical and Engineering Dictionary, McGraw-Hill Book Company, second edition, 1967, page 903.

VI. The oral proceedings took place by videoconference on 13 May 2022.

The parties' final requests were as follows:

The appellant (opponent) requested that the decision under appeal be set aside and that the patent be revoked. The appellant further requested that the respondent's request related to the decision on apportionment of costs be rejected.

The respondent (patent proprietor) requested that the appeal be dismissed (main request) and, as an auxiliary measure, that the decision under appeal be set aside and that the patent be maintained as amended on the

basis of the claims of one of auxiliary requests 1 to 6 filed by letter of 26 May 2016. The respondent also requested that the decision on apportionment of costs be admitted into the appeal proceedings and that it be set aside.

VII. Claim 1 of the granted patent reads as follows (the feature references used by the board are indicated in square brackets):

[1] A method for recycling a composite material
[2] comprising cellulose, plastic material, aluminium and water obtained from a pulping process, **[3]** so as to obtain a raw material **[3a]** suited to be used in a plastic forming process and **[3b]** behaving in substantially the same way as a filled plastic material, said method comprising the phases of:
[4] - introducing said composite material into a tank full of water to allow settling of heavy foreign bodies and separation of the residual solid fraction;
[5] - centrifuging said residual solid fraction, so as to reduce its moisture content;
[6] - shredding and drying said solid fraction, so as to obtain a dried material having a water content of less than 2% and a cellulose content of less than 2%;
[7] - compacting the dried material, and
[8] - extruding the compacted material and
[9] subdividing it into granules.

VIII. The parties' submissions relevant to this decision may be summarised as follows:

(a) Claim interpretation

(i) Appellant

In decision T 304/08, the board held that a statement of purpose for a method claim could not be used to confer novelty and inventive step, and that this was distinct from the situation for a use claim. The statement that a method was suitable for providing a given product, as was the case in the preamble of granted claim 1 with regard to features 3, 3a and 3b, was thus merely a statement that the method was suitable for producing such a material, and could not be used to distinguish the claimed subject-matter from the disclosure of a method having the same steps and not indicated to be for producing that product.

Features 3, 3a and 3b referred to the requirement of a desired, though not necessarily obtained, final product, which was called "raw material". This final product was not called by the same term as the final direct product of the method as claimed, which was "granules" (see feature 9). It was normal drafting convention to maintain a consistent designation for a particular product throughout the claim. Consequently, granted claim 1 could be interpreted in such a way that the "raw material" was not necessarily identical to the "granules" obtained as a direct result of the final step of the method, but could also refer, for example, to an intermediate product obtained in the course of the method. The skilled person, being familiar with patent drafting conventions, would have assumed that

this distinction was what had been intended by using the designation "raw material" rather than "granules". It would have been perfectly possible for the applicant to amend claim 1 during prosecution to require at the end of the claim that said granules behave in substantially the same way as a filled plastic material. In this way, the claim would clearly have required the granules obtained as a direct product of the final step of the claimed method to be the product which was intended to behave in substantially the same way as a filled plastic material.

(ii) Respondent

The skilled person in the technical field of plastics engineering, reading granted claim 1, would have considered the granules which were obtained as a final product of the claimed method to be a raw material suitable to be used in a process of plastic moulding and behaving substantially in the same way as a filled plastic material.

(b) Ground for opposition under Article 100(c) EPC

(i) Appellant

For examination with respect to the ground for opposition under Article 100(c) EPC, the gold standard set out in decision G 2/10 had to be applied.

The subject-matter of the granted patent extended beyond the content of the application as filed in view of the insertion of features 3, 3a and 3b into claim 1. The properties that had been attributed to the granules

in claim 11 as originally filed were now attributed to a new entity, namely the raw material, which was different from the granules defined in feature 9. Granted claim 1 lacked any basis in the application as originally filed, at least for the presence of the term "raw material". The expression "raw material" without the qualifying term "secondary" did not appear in the application as filed. Accordingly, the skilled person could not arrive at any conclusion as to what the term "raw material" meant and whether or not it might be equivalent to the granules obtained by the method.

The expression "*suited to be used in a plastic forming process*" (see feature 3a) did not appear in the application as originally filed either. The nearest statement was in the fifth paragraph on page 1 of the application as originally filed, which stated that the final granulated material "*behaves in substantially the same way as a filled plastics material, and may accordingly be processed using methods conventional in the sector such as for example injection moulding to obtain desired articles*". Feature 3a represented an unallowable intermediate generalisation in two regards. First, methods conventional in the sector of filled plastic material encompassed not only plastic forming processes such as injection moulding but also, for example, drilling and milling. Second, the suitability of the final granulated material for being processed in this manner was stated to result from the property that the material behaved in substantially the same way as a filled plastic material. The application as originally filed did not provide a basis for an intermediate generalisation to plastic forming processes other than injection moulding or to plastic materials other than filled plastic materials. Decision T 653/03, in which it was concluded that a diesel engine could not be

generalised to an internal combustion engine, was relevant.

(ii) Respondent

The claim amendments regarding features 3, 3a and 3b had a basis on page 1, third to fifth paragraph of the application as originally filed. It was, for example, apparent from this passage that the method provided granules which were the raw material for the subsequent process.

(c) Ground for opposition under Article 100(b) EPC

(i) Appellant

Claim 1

The subject-matter of claim 1 was not sufficiently disclosed because the patent in suit did not define the term "filled plastic material" (see feature 3b), so the skilled reader would not have been in a position to determine in what way a given material should behave in order that it could be said to behave in substantially the same way as a filled plastic material. The skilled person would have construed the term "filled plastic material" as requiring that a plastic material contain a filler. There was no indication that the filled plastic material was a plastic material that had been filled with metal. Aluminium was mentioned as an example in the description. However, it followed from decision T 1011/01 that one example was not enough, since in that case an objection of insufficient disclosure against a dependent claim would not be

possible. Many different plastics could be filled with many different filling materials in different proportions. Completely different properties of the resulting filled plastic material would be obtained depending on the plastic material that was filled, the filling material used and the proportion of filler used. Accordingly, a very wide range of behaviours could be considered to be covered by the expression "*behaving in the same way as a filled plastic material*".

There was no disclosure in the patent of any testable parameter that would allow the skilled person to determine whether the raw material met the requirement of behaving in "*substantially the same way as a filled plastic material*". There was a range of behaviours that could be considered to be substantially the same as the behaviour of a filled plastic material, but the skilled person would never know whether they had obtained a raw material that behaved in substantially the same way.

The objection of insufficiency of disclosure regarding feature 6 of granted claim 1 raised during the oral proceedings before the board was a response to the following sentence of the board's preliminary opinion on the issue of novelty in view of document D2: "*Even if it was assumed that it was commonly known to the skilled person that cutting tools, shearing tools, impacting tools and pressure tools could all be used for shredding, this would not seem to immediately indicate that the cleaning process described in document D2 necessarily resulted in shredding of the material in the washing machine*" (see page 25 of the board's communication under Article 15(1) RPBA 2020), which was the first time that it had been contested

that cutting tools, shearing tools, impacting tools and pressure tools could all be used for shredding.

Claim 11

The subject-matter of claim 11 was not sufficiently disclosed. Based on the information in the contested patent (paragraphs [0011] and [0019] to [0022]), the skilled person would have understood that the ratio of plastic to aluminium in the product produced by the example was dictated by the ratio of plastic to aluminium in the residual composite material obtained from a pulping process. The patent in suit provided only a single example of how to work the invention at one end of the range of claim 11, i.e. the lower end of the plastic range, 49%, and the upper end of the aluminium range, 49% (see paragraph [0022]). There was no teaching of how to work the invention at the other end of the range of claim 11, i.e. the upper end of the plastic range, 95%, and the lower end of the aluminium range, 5%. To arrive at the other end of the range, i.e. 95 w/w % plastic and 5% aluminium or thereabouts, and bearing in mind that the ratio of the plastic to aluminium did not deviate throughout the process of the example, an initial composite material obtained from a pulping process would require a ratio of plastic to aluminium of around 19:1. However, the largest ratio of plastic to aluminium that, according to paragraph [0011], was typically present in a residual composite material obtained from a pulping process was 2:1 (20% plastic, 10% aluminium). Thus the description effectively stated that the maximum ratio of plastic to aluminium in the final product producible by the method of the example was 66% plastic and 33% aluminium. Accordingly, unless a significant proportion of the

aluminium was separated and removed from the plastic during the process, more than half of the scope of claim 11 could not be put into practice.

(ii) Respondent

Claim 1

The appellant's objection regarding feature 3b was more aimed at supporting a lack of clarity than an objection of insufficiency of disclosure. Lack of clarity was, however, not a ground for opposition. The skilled person in the field of plastics well knew the meaning to be attributed to the expression "filled plastic material". The "filled plastic material" obtained by the process of the opposed patent was made from plastic filled with aluminium, the latter acting as a filler. The contested patent disclosed that the typical starting materials (for example, Tetrapak containers deprived of a large part of the cellulose fibers) were constituted by water, residual cellulose fibers, polyethylene and aluminium, and that the claimed process reduced or eliminated water and cellulose to obtain a mixture of polyethylene and aluminium.

The appellant's objection regarding feature 6 was a new objection that had not been raised before and that should not be admitted into the proceedings.

Claim 11

The intervals specified in claim 11 referred to possible distributions of plastic and aluminium which

essentially depended on the composition of the starting material and other factors.

(d) *Ground for opposition under Articles 100(a) and 54 EPC: novelty in view of document D1*

(i) Appellant

The subject-matter of granted claims 1, 3, 9 and 10 lacked novelty in view of document D1.

The ground for opposition of lack of novelty of the granted claims had been raised in the notice of opposition. Document D1 had been cited in the notice of opposition with respect to inventive step. The facts and evidence relevant to the above objection were document D1, which had been presented in the notice of opposition and thus submitted in due time. The ground for opposition of lack of novelty had also been raised and substantiated in due time, albeit only over document D2 in the notice of opposition. That the opponent later alleged lack of novelty over document D1 was not a new fact or new evidence which needed to be submitted within a given time limit. This was a new argument, and new arguments were not subject to time limits.

The objection was also *prima facie* relevant and was a response to the opposition division's view that some features of granted claim 1 were not disclosed in document D1.

(ii) Respondent

This objection should be treated as a new ground for opposition raised for the first time in appeal proceedings, and should thus not be admitted into the appeal proceedings without the patent proprietor's consent.

(e) *Ground for opposition under Articles 100(a) and 54 EPC: novelty in view of document D2*

(i) Appellant

The subject-matter of granted claim 1 lacked novelty over document D2. The step of shredding the solid fraction (feature 6) was carried out in document D2 in the washing machine for plastics (see page 372). According to decisions T 79/96 and T 596/96, a non-specific definition in a claim should be given its broadest technically sensible meaning. This applied to the term "shredding" used in feature 6.

Document D11, showing the skilled person's common general knowledge, disclosed on page 27, last paragraph that "swing-hammer type shredders" performed four different steps for size reduction. As could be seen from this paragraph, none of these steps was characterised by cutting. All of these steps, in particular step two, were only characterised by a size reduction and not by cutting or by breaking something. The size reduction could be performed by increasing the density, namely by deforming the shredded part. Size reduction could further be caused, as exemplified by the third step, through the formation of cracks with

subsequent bending, torsion and impact. While the last paragraph on page 27 referred to Figure 11, which showed that the mean fragment mass was reduced over the shredding time as well, this was only one embodiment of the more-general teaching set out in the last paragraph on page 27. It was also evident from Figure 11 that the fragment mass was not reduced during all the size reduction steps. From the teaching of document D11 it was clear that a deformation step which was capable of performing a size reduction without mass reduction, for example bending or compression/crushing, must also be considered shredding. This was even clearer when looking at document D12, which stated that a shredder was a mechanical device which was capable of comminuting. From their general technical knowledge the person skilled in the art would have considered every mechanical device capable of comminuting, crushing or compressing a material to be a shredder.

Since there was only a small gap/clearance between the surrounding walls and the rotor of the washing machine shown in Figure 4 of document D2, the rotor was a mechanical device which was capable of crushing or compressing the material present in the clearance and was thus a shredder in accordance with the above definition.

In Figure 10 on page 28, document D11 defined what was to be understood as a "rotor shredder", namely swing-hammer shredders and also shredders with rotors having pins, cams, toothed slots or knives. Various shredders with different rotor designs were shown in Figure 8. As specifically stated in Figure 10, the rotor of a "high-speed rotor shredder" must have a linear velocity of 5 to more than 50 m/s. A rotor having a radius of more than 5 cm running at 1000 rpm had a linear velocity

that exceeded 5 m/s. It was thus clear that at least every rotor having a radius of more than 5 cm that ran at 1000 rpm and had anything looking like a cam or an impacting member (= swing hammer) must be considered a shredder.

As could be seen from Figure 4 (in comparison with Figure 6) of document D2, the rotor had a radius which was greater than 5 cm. In the third paragraph on page 372 it was stated that the rotor operated "above 1000 rpm". The rotor also had something which looked like a cam or an impacting member (see Figure 4) and was a mechanical means which was capable of impacting. The person skilled in the art would consequently have considered the rotor presented in document D2 in Figure 4 a shredder.

The above definition of a shredder also corresponded to the disclosure of document D5 on page 95, which stated that any mechanical means capable of impacting the part to be shredded must be considered a shredder, especially any machine diminishing the size of the goods to be shredded. Cutting tools, shearing tools, impacting tools and pressure tools could be used for shredding. The statement in point 4.3.1 of document D5 had no bearing on the case in hand since it only referred to bulk thermoplastics, while granted claim 1 related to a mixture of thermoplastics, cellulose and aluminium. Hence shredding of a material could also occur if no cutting took place. Document D12 explicitly stated that a shredder did not need to be a cutting tool but that every mechanical device which comminuted or ground must be considered as a shredder.

Document D2 explained in the third paragraph on page 372 that the "*non-cutting or dull rotor*" served to

"*completely do away with any trace of fibers ...*". The rotor thus removed the fibers present in the polyethylene containing aluminium and therefore reduced the size of the material. The rotor of document D2 was therefore a mechanical device which comminuted or ground.

The shredding step of feature 6 served to perform the same technical function ("*... so as to obtain a dried material ... having a cellulose content of less than 2%*") as the rotor of document D2 ("*... serves ... to completely do away with any trace of fibers ...*"). Hence there was no technical difference between the function of the rotor of document D2 and the shredding step of claim 1. Any device capable of reducing the cellulose content to less than 2% must be considered a shredding device in the sense of feature 6 because the cellulose fiber was separated from the polymer containing the aluminium, this separation falling under the broad technical meaning of "shredding". While the first paragraph on page 372 of document D2 disclosed that separation of the fiber and the waste made up of aluminium and polyethylene was carried out in the hydropulper after the separation, this only referred to a first separation. The third paragraph on page 372 referred to a further separation.

Document D13a stated that a "shredder" was something which shredded, "shred" having the meaning of lop off, hew, prune, strip or cut. This lexical meaning corresponded to the meaning of the expression "to shred" in document D13b. At least every device able to lop off, hew, prune, strip or cut must be interpreted as a shredder, regardless of the amount lopped off or the force used to hew or the geometric shape of the device. In other words, the ability to cut was not a

prerequisite for a device to be considered a shredder. In document D2, the clearance between the wall and the rotor in the washing machine was very small. Consequently, the material arranged in the clearance must be hewed, lopped, pruned or stripped when the rotor is running above 1000 rpm.

Document D7 stated that any mechanical process that resulted in plastics waste being fragmented into irregular pieces of any dimension or shape was considered shredding. At least some of the material subjected to the non-cutting rotor in the washing machine of document D2 had its size reduced by the process due to the action of the rotor.

On page 372, document D2 disclosed two embodiments, non-cutting rotors and dull rotors. If, however, dull rotors were to be considered as an alternative to non-cutting rotors, dull rotors must be considered cutting rotors.

The subject-matter of granted claims 9 and 11 also lacked novelty over document D2.

(ii) Respondent

The subject-matter of granted claims 1, 9 and 11 was new over document D2 since document D2 did not disclose feature 6.

Feature 6 of the claimed method aimed at reducing the size of the layered material and drying it, while document D2 specified that "a non-cutting or dull rotor" was used. It was thus not possible to argue that

the material was comminuted in this way, regardless of the rotation speed of the rotor.

According to point 4.3 on page 95 of document D5, the types of plastic to be recycled dictated the specifications of the shredders. From point 4.3.1 of document D5, it was evident that cutting must be used for thermoplastics. This also applied to polyethylene cited in claim 1.

It was not evident from page 372 of document D2 that the wording "a non-cutting or dull rotor" referred to two distinct alternatives.

(f) *Ground for opposition under Articles 100(a) and 56 EPC: inventive step starting from document D1*

(i) Appellant

The subject-matter of granted claim 1 did not involve an inventive step in view of document D1. There were three lines of argument relating to three ways of reading the features of claim 1 onto the contents of document D1.

In a first interpretation, a composite material was disclosed as a slurry passing through line 8 to liquid cyclone 13 in Figure 1 of document D1 (see column 7, lines 51 to 53) to remove stones, large pieces of metal and other hard objects, before then being passed to a coarse screen 9 and slotted screen 10 to separate the paper fiber component from the residual component, i.e. the plastic and/or plastic/metal particles. The screen 10 passed the water and paper fiber to the separators 18 and 20, while a mixture of plastic and aluminium was

passed to line 12. The water content of the composite material was thus reduced by passing through the screen since the water was separated, along with the fiber component, from the residual solid fraction, namely the mixture of plastic and aluminium passing through line 12. As could be seen from Figure 2, line 12 fed into grinder 52, which reduced the particle size of the material as stated in column 10, lines 27 to 28. Document D1 then disclosed a drying system 74 and a rotating drum pulverizer which created dust that melted by friction, resulting in compaction of the material before it passed into extruder 86. Accordingly, document D1 disclosed a method having all the steps of claim 1 or having functions equivalent to all the steps of claim 1. However, the exact manner in which the steps were implemented differed in the following aspects:

- The cyclone was used to remove stones, in place of a settling tank. This was a workshop modification that would be within the general knowledge of the skilled person illustrated by document D5, which on pages 109 to 110 described methods of sorting shredded goods by density and indicated that flow separation by gravity and float/sink separation in a centrifugal field were means that could alternatively be used.
- The use of the screen 10 to reduce the water content of the composite material of the residual solid fraction, instead of the centrifuge used in claim 1 of the contested patent. Again, this was a workshop modification within the knowledge of the skilled person, as the use of centrifuges to remove water and/or other components was well-known. It was disclosed in point 4.7.1 of document D5 that the centrifuge could be used as a drying means. Pages 110 to 111 of document D5 described the use of centrifuge technology to carry out

separation of materials by pumping a slurry into a cylindrical bowl and applying centrifugal force to separate the materials by density. A sorting centrifuge capable of separating water, light particles and heavy particles from a slurry was shown in Figure 4.23 of document D5.

- The use of a grinder in place of shredding, namely the reduction in particle size of the solid fraction. The skilled person would again make use of their common general knowledge to make such a workshop modification.

A second line of argument included, for example, that feature 5 was disclosed in the context of the centrifugal separator 68 (see Figure 2 of document D1). The denser fraction leaving the bottom of separator 68 via line 70 contained water (even though less than 1%; see column 12, lines 43 and 44). Consequently, water was removed from the lighter fraction (plastic in line 72) by branching off the denser fraction via line 70. This led to a reduced moisture content of the plastic in line 72 as compared with the material in line 66 leading to the separator 68. The moisture content defined in feature 5 referred to the absolute amount of moisture and not to the relative amount.

In a further line of argument (third interpretation), having learned from document D2 that plastics filled with metal could be successfully used in plastic forming processes, the skilled person might have done away entirely with centrifugal separator 68 in Figure 2 of document D1, as no separation between the plastic and metal-and-plastic streams was required. In that case, the skilled person had the option to replace the screw press 78, which reduced the moisture content of the residual solid fraction, with a centrifuge to carry out the same function. Again, this alternative was

well-known to the skilled person, as illustrated by document D5.

(ii) Respondent

The subject-matter of granted claim 1 involved an inventive step in view of document D1. Document D1 suggested completely, or as much as possible, separating the aluminium from the plastic portion of the washed material. Document D1 also suggested maintaining the product in water, and failed to mention any drying step of the material.

Following the third line of argument presented by the appellant, the skilled person would have had to combine documents D1 and D2. Document D1, however, suggested removing the aluminium from the plastic and pulverising the material, while document D2 suggested keeping the aluminium together with the plastic (at least in part) and avoiding shredding the material. It was clear that the two documents gave contrary instructions and that they therefore failed to provide any suggestion to combine them. This applied to both processes for treating the composite material to be recycled set out in document D1. In both processes, aluminium was removed from plastic, so the final product (granules) could not be considered a filled plastic material as required by granted claim 1.

Following the appellant's second interpretation, document D1 did not disclose features 3b and 5. Regarding feature 5, there was no disclosure in document D1 that the moisture content of the material leaving the separator 68 via line 72 was reduced. The

appellant had not shown that the moisture content of the material in line 72 was less than in line 66.

(g) *Ground for opposition under Articles 100(a) and 56 EPC: inventive step starting from document D2*

(i) Appellant

The subject-matter of granted claim 1 was obvious in view of document D2. The technical effect achieved in view of feature 6 was obtaining a cellulose content of less than 2%. The same effect was achieved in document D2. The objective technical problem solved in view of feature 6 was either to find an alternative rotor design or to improve the effectiveness of the drying step. There were accordingly two lines of argument as to why the skilled person would have arrived at the subject-matter of granted claim 1 (i.e. document D2 alone, or document D2 and the common general knowledge as evidenced by document D5).

Regarding the technical problem of finding an alternative rotor design, page 372 of document D2 disclosed a non-cutting rotor. In trying to solve the technical problem of finding an alternative rotor design, the skilled person was in a "one-way street" situation, since the only alternative to a non-cutting rotor was a cutting rotor. In view of the first formulation of the objective technical problem (to find an alternative rotor design), the skilled person would thus have arrived at the subject-matter of granted claim 1 in an obvious manner in view of document D2 alone.

The step of shredding the solid fraction was directly linked to the requirement of "drying" the residual solid fraction, so the overall effect was to generate a material having a water content of less than 2%. In the absence of any further information, the skilled person would have considered that the intended effect of the shredding step was to assist the overall drying process to provide a final water content of less than 2%. Shredding a material reduced the particulate size of the material, thereby increasing its overall surface area. It was well known in the art that a wet material could be dried at a faster rate by increasing its overall surface area. The shredding step may increase the rate of water removal from the residual solid fraction, thereby improving the effectiveness of the drying process. Document D2 itself suggested the technical problem of more-efficient drying in the penultimate paragraph on page 375. The problem to be solved could thus be formulated as how to improve the effectiveness of the drying step.

The solution provided by the claimed method fell within the common general knowledge of the skilled person. Had the skilled person wished to increase the rate of drying in that phase, the obvious thing to do would have been to increase the overall surface area of the material in order to increase its rate of drying. According to document D2, it was very important that the material entering the agglutination step was dried effectively in order to prevent the formation of bubbles. This would be achieved by increasing the rate of removal of the water from the sample prior to agglutination, which in turn would be achieved by, for example, shredding, grinding, tearing, comminuting, etc. the material prior to drying. It was within the skilled person's common general knowledge that size

reduction of waste plastics was the creation of suitable particle size and shape that reduced volume and created a homogeneous feedstock (see point 4.3 of document D5, which demonstrated the skilled person's common general knowledge).

In accordance with case law, if the technical problem that the skilled person set themselves to solve brought them to the solution step by step, with each individual step being obvious to them in terms of what they had achieved so far and what remained for them to do, the solution was obvious to the skilled person on the basis of the prior art, even if two or more such steps were required. There was thus nothing inventive about modifying a known product/method by adding (a) known feature(s)/method step(s) to achieve a known function associated with this/those feature(s)/method step(s).

According to decision T 1601/15, the person skilled in the art did not need any suggestion to apply their common general knowledge. The introduction of the shredding step into document D2 produced nothing more than what would have been expected by the introduction of said step, i.e. there was no additional effect going beyond what would be expected. In view of the second formulation of the objective technical problem (how to improve the effectiveness of the drying step), the skilled person would thus have arrived in an obvious manner at the subject-matter of granted claim 1 in view of document D2 and the common general knowledge as evidenced by document D5.

Even if the respondent's formulation of the objective technical problem (i.e. to obtain homogeneous material to be provided to the compactor) was accepted, shredding was a process that was widely used in

recycling processes in general. It was known from document D5 (which represented the common general knowledge) that shredding could take place at the beginning of the process. The skilled person would also have considered a shredding step later in the process so that less material needed to be shredded, since, at the stage at which the shredding step was conducted in the claimed method, foreign bodies had been removed along with the majority of the cellulose in the composite material. Given that the purpose of size reduction of a feedstock as taught by document D5 was to reduce volume and create homogeneous material, the skilled person would have realised that the advantages of shredding were mainly manifested later in the process, as homogeneity did not make it easier to separate cellulose from the plastic and aluminium in the composite material or to reduce the moisture content of the composite material. Shredding the solid fraction after having separated the cellulose fibers had the additional advantage that the length of the fibers was preserved, which facilitated the subsequent recycling of the fibers. The skilled person would thus have recognised that the shredding process could be moved to follow the cellulose removal so that the only material that would need to be shredded was the residual solid fraction, namely a material mainly comprising plastics and aluminium, and so it was not necessary to expend energy in shredding cellulose. It would therefore have been a mere workshop modification of the process of document D2 to include a shredding step subsequent to centrifuging the residual solid fraction to reduce its water content and prior to drying the solid fraction to provide a homogeneous material for further processing.

The subject-matter of granted claim 1 thus did not involve an inventive step in view of a combination of document D2 and the common general knowledge as evidenced by document D5.

(ii) Respondent

The subject-matter of granted claim 1 was not obvious in view of document D2. The objective technical problem was to obtain homogeneous material to be provided to the compactor.

Regarding the formulation of the objective technical problem as being to find an alternative rotor design, as suggested by the appellant, it would not have been obvious to the skilled person starting from document D2 to replace the non-cutting rotor by a cutting rotor since this would have gone against the teaching of document D2.

Even if the skilled person had sought to improve the drying phase of the material in document D2, as also suggested by the appellant, they would have used known techniques, such as increasing the drying time, using well-known drying additives normally used in the field of plastics recycling or using a further drying step between the first and second extrusion of the material. These solutions would have solved the alleged technical problem without going against the teaching of a non-cutting or dull rotor in document D2.

A further reason why documents D2 and D5 could not be combined in an obvious way derived from the fact that document D5 discussed how to grind the material before supplying it to the washing tank, and addressed a

"standard" plastic material, not the composite material of the opposed patent and of document D2, i.e. a material containing plastic and aluminium.

(h) *Ground for opposition under Articles 100(a) and 56 EPC: inventive step starting from the common general knowledge exemplified by document D5*

(i) Appellant

The subject-matter of granted claim 1 did not involve an inventive step in view of the common general knowledge as exemplified by document D5. This objection was *prima facie* relevant and should be admitted into the proceedings.

(ii) Respondent

This objection was late-filed and should not be admitted into the appeal proceedings

(i) *Respondent's requests concerning the opposition division's decision on apportionment of costs*

(i) Appellant

There was no legal basis for the respondent's requests.

Rule 97(1) EPC explicitly excluded the apportionment of costs as the sole subject of an appeal. Moreover, the principle of prohibition of *reformatio in peius*, in the case in hand, expressly excluded the possibility of introducing the decision on the apportionment of costs

into the appeal proceedings since, if the respondent's requests were admissible and the decision on the apportionment of costs were reversed, the sole appellant would be in a worse position than if it had not appealed against the opposition division's decision. The EPC also did not provide for a cross-appeal (in German "Anschlussbeschwerde").

(ii) Respondent

The patent proprietor had not been in a position to appeal against the opposition division's decision rejecting the opposition to the patent as granted as this decision did not adversely affect the patent proprietor. However, the patent proprietor was adversely affected by the opposition division's decision on the apportionment of costs, but Rule 97(1) EPC explicitly excluded the apportionment of costs as the sole subject of an appeal. Therefore an appeal would have been inadmissible if the patent proprietor had appealed only against the decision on the apportionment of costs. Thus Rule 97(1) EPC prevented the patent proprietor from having a second-instance review of the decision on apportionment of costs.

The appeal proceedings had been initiated by the opponent. Rule 97(1) EPC did not exclude the introduction of a decision on apportionment of costs into the appeal proceedings, regardless of the fact that the appeal proceedings had been initiated by a party not adversely affected by that decision (in this case the opponent). This was comparable to the case in which the patent proprietor appealed against a decision of the opposition division adversely affecting only them, and the opponent raised further objections

against the patent as granted or amended, which then became the subject of the appeal.

Reasons for the Decision

1. The appeal is admissible.
2. Claim interpretation

Referring to decision T 304/08, the appellant argues that features 3, 3a and 3b merely required the claimed method to be suitable for obtaining a raw material suited to be used in a plastic forming process and behaving in substantially the same way as a filled plastic material. These features could thus not distinguish the claimed method from a method having the same steps and not indicated as being for obtaining such a material.

The appellant's reference to decision T 304/08 is not persuasive. Claim 1 of the patent on which that decision is based includes the following wording: "*A method for reducing malodor associated with a disposable absorbent product intended for the absorption of body fluids, ...*". This wording defines a technical effect of the claimed method (namely the reduction of malodor). In the case in hand, however, features 3, 3a and 3b of method claim 1 concern the production of a material which has specific properties. The present case therefore differs from that underlying decision T 304/08 in that features 3, 3a and 3b do not merely define an effect of the claimed method but define properties of the material resulting from it. The method of claim 1 is thus not only defined by the

method steps explicitly indicated in the claim (for example, features 4 to 9), but also by the properties of the material obtained by the method defined in features 3, 3a and 3b (see also T 268/13, point 2.8 of the Reasons, and T 2111/13, point 3 of the Reasons).

The appellant takes the view that the "raw material" defined in feature 3 was not necessarily identical to the "granules" defined in feature 9.

According to established case law (see Case Law of the Boards of Appeal, Ninth Edition, 2019 ["Case Law"], II.A.6.1), the skilled person should try, with synthetical propensity, i.e. building up rather than tearing down, to arrive at an interpretation of the claim which is technically sensible and takes into account the whole disclosure of the patent. The patent must be construed by a mind willing to understand, not a mind desirous of misunderstanding.

In view of this case law, the appellant's view that claim 1 as granted could be interpreted in such a way that the "raw material" was different from the "granules" obtained as a direct result of the final step of the method is not found convincing. As set out above, features 3, 3a and 3b define properties of the material obtained by the method. The method further results in the production of granules (see feature 9). The skilled person would thus have understood features 3, 3a and 3b as defining properties of the final product of the claimed method, namely the granules. The skilled person had no reason to assume that the definitions of features 3, 3a and 3b referred to an additional material that was only obtained after additional method steps had been carried out, the presence of neither the additional material nor the

additional method steps being mentioned in the claims (or the patent as a whole). It is not plausible that the skilled person would have considered an intermediate product of the claimed method as a raw material suited to be used in a plastic forming process. Such claim interpretations, being based only on the use of different terms in features 3 and 9, are overly analytical. The skilled person having the intention of building up rather than tearing down and of arriving at a technically sensible interpretation of the claim would, considering the whole disclosure of the patent, consider the raw material cited in feature 3 to correspond to the granules cited in feature 9.

The appellant further argues that it would have been possible for the applicant to amend claim 1 during prosecution to require at the end of the claim that said granules behave in substantially the same way as a filled plastic material.

The reference to hypothetical alternative claim amendments that might or might not have been carried out during the examination proceedings of the application on which the patent is based does, however, not bar the skilled person from construing granted claim 1 as set out above.

3. Ground for opposition under Article 100(c) EPC

The appellant is of the opinion that the subject-matter of the patent as granted extended beyond the content of the application as filed in view of the insertion of features 3, 3a and 3b into claim 1. In the decision under appeal, the opposition division considered that

claim 1 was a combination of the original claims 1 and 11, further referring to the third, fourth and fifth paragraphs on page 1 of the application as filed (see points 2.2 to 2.3 of the Reasons). However, according to the appellant, the properties that had been attributed to the granules in claim 11 as originally filed were attributed in granted claim 1 to a "new" entity, namely the raw material.

The third to fifth paragraphs on page 1 of the description as filed read as follows:

"The object of the present invention is to provide a method for recycling said residual proportion which allows it to be converted into a "secondary" raw material.

According to the invention, said object is achieved thanks to a method comprising the phases of:

- introducing the material into a tank full of water to allow settling of heavy foreign bodies and separation of the residual solid fraction,*
- centrifuging the residual solid fraction, so as to reduce its moisture content,*
- shredding and drying said solid fraction, so as to obtain a dried material having a water content of less than 2% and a cellulose content of less than 2%,*
- compacting the dried material, and*
- extruding the compacted material and subdividing it into granules.*

The final granulated material behaves in substantially the same way as a filled plastics material and may accordingly be processed using the methods conventional in this sector, such as for

example injection moulding, to obtain desired articles. Preferably, the final granules contain from 45 to 95 w/w % plastics material and from 5 to 55 w/w % aluminium." (underlining by the board)

In the underlined passages, different terms are used, namely "secondary" raw material, granules and final granulated material. However, the skilled person would not necessarily have deduced from the use of different terms that different materials were meant. The skilled person would have read the term "final granulated material" at the beginning of the third paragraph cited as referring to the granules which constitute the final material that results from the method described in the preceding paragraph (i.e. the second paragraph cited). It is evident from the third paragraph cited that this final granulated material may be processed further to obtain desired articles. The use of the different terms "final granulated material" and "granules" does not impede the skilled person's ability to understand that these terms refer to the same material. Similarly, the "final granulated material" and "granules" are a raw material since they refer to a material used as a raw material for a subsequent process to obtain desired articles, as mentioned in the third paragraph cited. This understanding is also in line with the first paragraph cited.

The appellant submits that the expression "raw material" without the term "secondary" did not appear in the application as originally filed. The skilled person could not arrive at any conclusion as to what the term "raw material" meant and whether or not it might be equivalent to the granules obtained by the method, since it was a term lacking any basis in the application as originally filed.

From this submission, it appears that the appellant alleges a lack of clarity regarding the term "raw material" used in feature 3 of granted claim 1. However, lack of clarity is not a ground for opposition within the meaning of Article 100 EPC, and therefore examination for clarity is not permissible in the case of granted claims (see decision G 3/14, OJ EPO 2015, A102).

The appellant has not indicated any technical features implied by the term "secondary" in the context of raw material (as used in the application as filed) that would not be implied by the term "raw material" in granted claim 1.

The "gold standard" for assessing compliance with Article 123(2) EPC, also invoked by the appellant, is the following (see Case Law, II.E.1.1 and decision G 2/10): any amendment to the parts of a European patent application or of a European patent relating to the disclosure (the description, claims and drawings) is subject to the mandatory prohibition on extension laid down in Article 123(2) EPC and can therefore, irrespective of the context of the amendment made, only be made within the limits of what a skilled person would derive directly and unambiguously, using common general knowledge, and seen objectively and relative to the date of filing, from the whole of these documents as filed.

The same "gold standard" has to be applied in the context of the ground for opposition under Article 100(c) EPC. Hence the mere fact that the expression "raw material" without the term "secondary" does not appear verbatim in the application as filed

does not *per se* give rise to a ground for opposition under Article 100(c) EPC. The question in hand is rather whether the skilled person would have derived the subject-matter of granted claim 1 directly and unambiguously, using their common general knowledge, from the whole of the application documents as filed. As explained above, this is indeed the case. The skilled person would have understood the fifth paragraph on page 1 of the description as originally filed as referring to the granules obtained by the method described in the fourth paragraph on page 1. Similarly, as explained above (see point 2.), features 3, 3a and 3b refer to the granules obtained by the claimed method (see feature 9). The skilled person will understand that the expression "'secondary' raw material" used in the application as originally filed describes the method of the invention as producing a material that may be used as a raw material for a subsequent process. As set out above, this is the same course of action as defined in granted claim 1.

Features 3 and 3b are thus unambiguously and directly derivable from the cited passages of the application as filed.

With reference to feature 3a, the appellant submits that the expression "*suited to be used in a plastic forming process*" did not appear in the application as originally filed and represented an unallowable intermediate generalisation.

The lack of a literal repetition of the wording of feature 3a in the application documents as filed, however, does not *per se* justify the ground for opposition under Article 100(c) EPC. According to the passages on page 1 of the application as originally

filed cited above, the granules obtained by the method described, behaving in substantially the same way as a filled plastics material, may accordingly be processed using the methods conventional in this sector for obtaining desired articles, with injection moulding being mentioned only as an example. The cited wording refers to the purpose of the granules (as the final granulated material of the described method) as being to be subsequently processed using methods that use filled plastics material as a (secondary) raw material to obtain desired articles. The skilled person would unambiguously and directly understand that a granulated material behaving in substantially the same way as a filled plastics material can be understood to be a material suited to be used in a plastic forming process as cited in feature 3a. The appellant's assertion that, reading the fourth paragraph on page 1, the skilled person would consider that the granulated material could potentially (only) be suited for being processed by drilling or milling (but not by plastic forming processes as defined in granted claim 1), since these were methods conventional in the sector of (granulated) filled plastics material, has not been substantiated by verifiable facts.

While feature 3a refers to a plastic forming process in general terms without explicitly referring to methods for processing filled plastic material, feature 3b of claim 1 makes it clear that the material obtained behaves in substantially the same way as a filled plastic material. The skilled person would understand feature 3a in the context of the whole claim, i.e. also considering feature 3b.

The characterisation of the granules as a (secondary) raw material having the properties described in

features 3, 3a and 3b is therefore unambiguously and directly derivable from the cited passages on page 1 of the application as filed.

This view is not altered by the appellant's reference to decision T 653/03. Whether the subject-matter of a patent extends beyond the content of the application as filed has to be examined on a case-by-case basis considering the concrete amendments carried out and the content of the application as filed. The reference to decision T 653/03 concerning the term "combustion engine" therefore has no bearing on the case in hand.

In view of the above, the ground for opposition under Article 100(c) EPC does not prejudice the maintenance of the patent as granted.

4. Ground for opposition under Article 100(b) EPC

4.1 *Claim 1*

Feature 3b

The appellant submits that claim 1 was not sufficiently disclosed because the patent in suit did not define the term "filled plastic material" (see feature 3b) and so the skilled reader was not in a position to determine in what way a given material should behave so that it could be said to behave in substantially the same way as a filled plastic material.

This objection appears to refer to an alleged lack of clarity of granted claim 1 with regard to feature 3b. As explained above, lack of clarity is not a ground for opposition within the meaning of Article 100 EPC, and

therefore examination for clarity is not permissible in the case of granted claims.

According to case law (see Case Law, II.C.9), a successful objection of lack of sufficiency of disclosure presupposes that there are serious doubts, substantiated by verifiable facts. In order to establish insufficiency of disclosure in *inter partes* proceedings, the burden of proof is upon an opponent to establish, on the balance of probabilities, that a skilled person reading the patent, using their common general knowledge, would be unable to carry out the invention.

The wording of feature 3b is quite broad, as also pointed out by the appellant. The claim does not state what is meant by "in substantially the same way", i.e. in what respect the behaviour of the raw material should be substantially the same as that of a filled plastic material. It is further not evident what (composition of the) filled plastic material is used as a reference. The skilled person has a certain degree of freedom when implementing the claimed method, for example by choosing suitable behaviour parameters.

However, this broadness of the wording of feature 3b does not give rise to a situation in which the patent does not disclose the invention in a manner sufficiently clear and complete for it to be carried out by a person skilled in the art within the meaning of Article 100(b) EPC. The mere assertion that the skilled person would not have known whether they had obtained a raw material that behaved in substantially the same way as a filled plastic material does not imply that they could not put the claimed method into practice. The skilled person is able to choose

appropriate criteria for assessing the behaviour of the granulated material obtained and to discern whether, based on the chosen criteria, its behaviour substantially matches a desired behaviour of filled plastic material. The mere possibility that alternative criteria are conceivable for assessing whether the requirements of feature 3b are met does not, as such, limit the skilled person's ability to put the claimed invention into practice. Appropriate criteria within the definition of feature 3b would readily be chosen by the skilled person based on the composite material to be recycled (see feature 1) and the plastic forming process for which the granules are to be used as a raw material (see feature 3a).

While the claim wording may thus be considered broad, no undue burden is placed on the skilled person intending to implement the claimed method.

This view is not altered by the appellant's reference to decision T 1011/01. The board in that decision took the view that an objection of insufficiency could be raised against the subject-matter of any claim, independent or dependent (see point 2.3 of the Reasons). This, however, does not support the appellant's assertion that the disclosure of a patent was insufficient whenever only one example was given in the patent. Instead, the issue of insufficient disclosure has to be addressed on a case-by-case basis.

Feature 6

During the oral proceedings before the board, the appellant raised a new objection of insufficient disclosure regarding feature 6 of granted claim 1. The

respondent requested that this new objection not be admitted into the proceedings.

In accordance with Article 13(2) RPBA 2020, any amendment to a party's appeal case made after the expiry of a period specified by the Board in a communication under Rule 100(2) EPC or, where such a communication is not issued, after notification of a summons to oral proceedings, is, in principle, not taken into account unless there are exceptional circumstances, which have been justified with cogent reasons by the party concerned.

The appellant submitted that the new objection was a response to the following sentence in the board's preliminary opinion on the issue of novelty in view of document D2:

"Even if it was assumed that it was commonly known to the skilled person that cutting tools, shearing tools, impacting tools and pressure tools could all be used for shredding, this would not seem to immediately indicate that the cleaning process described in document D2 necessarily resulted in shredding of the material in the washing machine." (see last paragraph on page 25 of the board's communication under Article 15(1) RPBA 2020).

According to the appellant, there were exceptional circumstances, since the board's communication under Article 15(1) RPBA 2020 was the first occasion on which it had been contested that cutting tools, shearing tools, impacting tools and pressure tools could all be used for shredding.

This view is not convincing. In the last paragraph on page 25 of the communication under Article 15(1) RPBA 2020, the board expressly addresses the appellant's own submissions regarding documents D5 and D7. This is apparent from the beginning of that paragraph ("*The appellant's further references to documents D5 and D7 do not seem to alter this finding. [...]*"). On page 11, fourth paragraph of the statement of grounds of appeal, the appellant had submitted that section 4.3 of document D5 would be read as informing the skilled person that all the following tools could be used for shredding by mechanical means, namely: cutting tools, shearing tools, impacting tools and pressure tools. The cited passage of the board's communication directly addresses the appellant's submission and informs the parties of the board's view that, even assuming that this assertion is correct, this would not seem to indicate immediately that the cleaning process described in document D2 necessarily resulted in the material being shredded in the washing machine. In the cited passage, the board does not present any definition of the term "shredding", let alone any new definition that has not been previously presented in the proceedings.

There are thus no exceptional circumstances that have been justified with cogent reasons under Article 13(2) RPBA 2020. The board, exercising its discretion under Article 13(2) RPBA 2020, therefore decided not to admit the appellant's new objection of insufficient disclosure under Article 100(b) EPC against feature 6 of granted claim 1 into the appeal proceedings.

4.2 *Claim 11*

According to case law (see Case Law, II.C.5.2), an invention is in principle sufficiently disclosed if at least one way is clearly indicated enabling the person skilled in the art to carry out the invention. As also acknowledged by the appellant, the patent describes (at least) one example falling within the scope of claim 11.

The appellant's submissions do not call into question the skilled person's ability to implement other examples falling within the scope of the claim. Paragraph [0011] does not put any (maximum or minimum) limits on the ratio of the amounts of plastics and aluminium in the composite material that may be used for the claimed method. This paragraph refers to typical compositions of the composite material. Therefore the use of a composite material having a different composition, such as a higher or lower ratio of plastics to aluminium, is not excluded. The appellant's submissions therefore do not give rise to serious doubts, substantiated by verifiable facts, that the skilled person would be able to carry out the claimed method if using a composite material that had a higher ratio of plastics to aluminium within the scope of claim 11.

4.3 *Summary on the ground for opposition under Article 100(b) EPC*

The ground for opposition under Article 100(b) EPC does not prejudice the maintenance of the patent as granted.

5. Ground for opposition under Articles 100(a) and 54 EPC
(lack of novelty)

5.1 *Novelty in view of document D1*

In the first-instance proceedings, the opponent raised an objection of lack of novelty over document D1. The opposition division disregarded this objection, under Article 114(2) EPC (see point 5.4 of the Reasons for the decision under appeal). The decision under appeal also addresses objections of lack of inventive step in view of document D1 in accordance with two different interpretations (see points 6.2 and 6.3 of the Reasons).

In the statement of grounds of appeal, the appellant objected that the subject-matter of granted claims 1, 3, 9 and 10 was not new over document D1, submitting, for example, that the mechanical agitation device 56 of document D1 (see column 10, lines 32 to 47) performed the method steps of features 4 and 5 of granted claim 1 simultaneously.

It is undisputed that this objection was not raised in the first-instance proceedings. This objection involves the factual allegation that the combination of all the features of claims 1, 3, 9 and 10 respectively was disclosed in document D1, and that the combination of specific elements described in document D1 deprived the claimed subject-matter of novelty in view of the newly-presented interpretation of this document. In the notice of opposition, in contrast, the opponent perceived a difference between claim 1 as granted and document D1 (see point 7.2 of the notice of opposition, for example, on page 12, last paragraph, first

sentence: "*The difference between the claim 1 as granted and D1 is that ...*"). It is thus not correct that the above novelty objection was merely a new argument that did not involve new facts, as submitted by the appellant. The fact that the ground for opposition of an (alleged) lack of novelty in view of a different document (namely document D2) had already been invoked in the notice of opposition and the fact that document D1 had already been cited in the notice of opposition with regard to a different ground for opposition (namely an alleged lack of inventive step) do not lead to a different conclusion.

According to Article 12(4) RPBA 2007 (which by virtue of Article 25(2) RPBA 2020 applies to the appellant's statement of grounds of appeal), the board has discretionary power to hold inadmissible facts, evidence or requests which could have been presented or were not admitted in the first-instance proceedings.

The appellant submitted that this objection was a response to the opposition division's view that some of the features of granted claim 1 were not disclosed in document D1.

The fact that the opposition division did not concur with the opponent's view that some claim features were disclosed in document D1 does not justify raising a new objection of lack of novelty over document D1 in the statement of grounds of appeal. Since document D1 was submitted with the notice of opposition, the opponent could (and should) have assessed its relevance with regard to the (only) independent claim of the patent when preparing the notice of opposition. It is not evident why an objection of an (alleged) lack of novelty based on this document, and involving *inter*

alia the above factual allegations regarding specific elements of document D1 corresponding to features of claim 1 as granted, was submitted as late as with the statement of grounds of appeal. The same applies to the appellant's submission that the subject-matter of granted claims 3, 9 and 10 was not new over document D1.

The board, exercising its discretion under Article 12(4) RPBA 2007, therefore decided not to admit the appellant's objection of lack of novelty based on document D1, raised in the statement of grounds of appeal, into the appeal proceedings.

5.2 *Novelty in view of document D2*

In the decision under appeal, the opposition division concluded that the subject-matter of granted claim 1 was new over document D2, as the latter did not disclose shredding the solid fraction as defined in feature 6. The appellant, in contrast, considers the step of shredding the solid fraction as being carried out in the washing machine for plastics of document D2.

According to case law (see Case Law, I.C.4.3), a prior-art document anticipates the novelty of claimed subject-matter if the latter is directly and unambiguously derivable from that document, including any features implicit to a person skilled in the art. An alleged disclosure can only be considered "implicit" if it is immediately apparent to the skilled person that nothing other than the alleged implicit feature forms part of the subject-matter disclosed.

The appellant submits that, from their general technical knowledge, the person skilled in the art would have considered every mechanical device capable of comminuting, crushing or compressing a material to be a shredder, referring to document D11, page 27 and document D12.

No support for this assertion can be found in the cited references. The last paragraph on page 27 of document D11 sets out that, for swing-hammer type shredders, four different steps for size reduction have been recognised. While this paragraph does not explicitly mention, for example, cutting, fragmenting or tearing up the material, it explicitly refers to Figure 11. Figure 11(a) shows that the mean fragment mass decreases during the shredding. In other words, the shredding described in Figure 11 does not merely consist of compressing or crushing the material as suggested by the appellant. The skilled person, reading the last paragraph on page 27 in its context, would not consider compressing or crushing material in itself as shredding. Even though the mean fragment mass is not reduced during the second step described, it has not been convincingly shown that the skilled person would have considered the second step, in isolation, as shredding. Document D11 makes it clear that the second step is just one step of the entire shredding process.

The appellant's assertion that the skilled person would have understood that shredding could be done by merely crushing or compressing a material is not supported by document D12, which refers to comminuting ("Zerkleinern") instead. The same applies to the appellant's assertion that document D12 allowed the conclusion that every mechanical device that diminished the size must be interpreted as a shredder. No support

for such a broad interpretation of the term shredder is apparent from document D12.

The question if, in document D2, the rotor was a mechanical device capable of crushing or compressing the material is therefore irrelevant to the issue in hand.

Figure 10 of document D11 describes the classification of comminuting machines used for size reduction of non-brittle materials. It cannot be deduced from this figure that every rotor having a radius of more than 5 cm that runs at 1000 rpm and has "anything which looked like a cam or an impacting member" must be considered a shredder. The definition that comminuting machines of the class "high-speed rotor shredder" have a rotor that moves at a linear velocity of 5 to more than 50 m/s (as the appellant derives from Figure 10 of document D11) does not imply that each and every rotor moving at such velocity must be considered a shredder. This also applies if the rotor has an element looking like a "cam" or an "impacting member" as suggested by the appellant.

Importantly, feature 6 of granted method claim 1 does not define the presence of a shredder but refers to (a method step of) shredding. Whether the rotor of the washing machine of document D2 shreds the material in the washing machine when operating at 1000 rpm depends on the material. This is also stressed by document D5, page 95 ("*The types of plastic to be recycled dictate the specifications of the shredder.*"). To show that document D2 discloses feature 6, it is not sufficient to demonstrate that the skilled person would have called the washing machine of Figure 4 of document D2 a "shredder" as submitted by the appellant (for example

on the assumption that it could be configured to shred one type of material). The issue in hand hinges on the question of whether the washing machine of document D2 shreds and dries the solid fraction as defined in feature 6.

The same reasoning applies in view of document D5. That shredding can be done by mechanical means with tools that cut, shear, impact and pressure does not imply that any arbitrary mechanical means with tools that cut, shear, impact and pressure must be considered a shredder. Even more importantly, the disclosure of such mechanical means by itself does not implicitly or explicitly disclose (a step of) shredding as defined in feature 6.

This also applies in view of the definition of "to shred" set out in document D13a. The appellant has not convincingly shown that the material arranged in the clearance between the wall and the rotor in the washing machine of document D2 (see Figure 4) is necessarily hewed, lopped, pruned or stripped when the rotor is running above 1000 rpm.

According to the appellant, document D7 (see top of page 5) states that any mechanical process that resulted in plastics waste being fragmented into irregular pieces of any dimension or shape was considered shredding, and at least some of the material subjected to the non-cutting rotor in the washing machine of document D2 has its size reduced by the process due to the action of the rotor. The appellant has, however, not convincingly shown that the material in the washing machine of document D2 is fragmented due to the action of the non-cutting rotor. It cannot therefore be concluded that the process disclosed in

document D2 falls within the scope of what is considered shredding in document D7.

The appellant submits that removing the fibers present in the polyethylene containing aluminium (see third paragraph on page 372 of document D2) could be considered shredding since the size of the material was reduced. The appellant, however, has not provided sufficient support for the assumption that the skilled person would have considered shredding to encompass all kinds of size reduction or separation.

According to the first paragraph on page 372 of document D2:

"The fibrous material which is suspended in water is removed by pumping it through the lower part of the hydropulper then passing it through a perforated plate which avoids the polyethylene with aluminum flow. These materials are removed laterally by gravity and go through a process of separation of the residual fibers and washing of polyethylene and aluminum."

The wording "to completely do away with any trace of fibers" in the third paragraph on page 372 cannot thus unambiguously and directly be understood as implying that the fibers were detached from the polyethylene/aluminium particles in the washing machine. It could alternatively be understood as referring to separating the already-detached fibers from the polyethylene/aluminium through a cleaning process. It cannot be directly and unambiguously derived from document D2 that the rotor was used for comminuting or grinding the material in the washing machine.

The appellant asserts that, in document D2, the clearance between the wall and the rotor in the washing machine was very small, such that the material arranged in the clearance must be hewed, lopped, pruned or stripped when the rotor was running above 1000 rpm. This assertion has not been corroborated and is not convincing. As set out above, whether material in the washing machine is shredded when the rotor operates at 1000 rpm depends on the material properties. The appellant has not provided any support for the assertion that at least some of the material subjected to the non-cutting rotor in the washing machine of document D2 would have its size reduced by the process due to the action of the rotor.

The third paragraph on page 372 of document D2 refers to "a non-cutting or dull rotor". The skilled person will not unambiguously and directly understand this citation as referring to two distinct "embodiments", as suggested by the appellant. Document D2 is not a patent document. It is not evident that this wording refers to two distinct alternatives for the rotor. The skilled person will understand this passage as referring to a rotor that is characterised as being non-cutting or dull, where these two terms have overlapping meanings. The appellant's view that the cited passage disclosed a dull but cutting rotor is therefore unfounded.

The appellant's references to decisions T 79/96 and T 596/96 do not lead to different conclusions. The appellant has not convincingly shown that, giving the term "shredding" its broadest technically sensible meaning, feature 6 would be disclosed in document D2.

It follows from the above that the subject-matter of granted claim 1 is new in view of document D2.

Since granted claims 9 and 11 are dependent on claim 1, their subject-matter is new over document D2 at least for the same reasons as the subject-matter of granted claim 1.

5.3 *Summary on the ground for opposition under Articles 100(a) and 54 EPC (lack of novelty)*

The ground for opposition under Articles 100(a) and 54 EPC does not prejudice the maintenance of the patent as granted.

6. Ground for opposition under Articles 100(a) and 56 EPC (lack of inventive step)

6.1 *Inventive step in view of document D1*

Regarding document D1 as the closest prior art, the appellant submits three lines of argument relating to three ways of reading the features of claim 1 onto the contents of this document (see above).

In the first line of argument, the appellant submits that the subject-matter of claim 1 differed from document D1 in that a settling tank was used to remove stones, a centrifuge was used to reduce the water content of the composite material of the residual solid fraction and the solid fraction was shredded.

The appellant considers each of these differentiating features, in isolation, a mere workshop modification. This line of argument is not convincing for several reasons.

In accordance with case law (see Case Law, I.D.9.2.1), when assessing the inventive step involved in an invention based on a combination of features, consideration must be given to whether or not the state of the art was such as to suggest to a skilled person precisely the combination of features claimed. The fact that an individual feature or a number of features were known does not conclusively show the obviousness of a combination. When assessing inventive step in a combination invention, the decisive criterion is not whether individual elements of the combination were known and obvious from prior art, but whether the state of the art would lead a skilled person to this particular overall combination of (possibly already-known) features. The existence of a combination invention requires that the relationship between the features or groups of features be one of functional reciprocity or that they show a combinative effect beyond the sum of their individual effects.

In the case in hand, a relationship of functional reciprocity between features 4 and 5 exists in that the introduction of the composite material into a tank full of water to allow settling of heavy foreign bodies and separation of the residual solid fraction according to feature 4 results in a high moisture content of the residual solid fraction, which is subsequently reduced by centrifuging the residual solid fraction according to feature 5. At least features 4 and 5 are interrelated as they act together to produce the residual solid fraction of low moisture content. Contrary to the case law cited above, the appellant's submission does not consider this relationship between features 4 and 5.

However, even if taken in isolation, at least feature 5 was not obvious in view of document D1, as this feature does not represent a mere "workshop modification" of the screen 10. Screen 10 is used for separating the paper fiber component from the residual component, i.e. the plastic and/or plastic/metal particles, in order to obtain a paper fiber stream and a residual stream (see column 7, lines 44 to 50). There is no reason to assume that the screen 10 is used for the purpose of reducing the moisture content of the residual solid fraction. While column 8, lines 5 and 6 describes the paper fiber stream as containing over 99% water, the appellant has not convincingly shown that the skilled person would have understood the purpose of screen 10 as being to reduce the water content of the composite material of the residual solid fraction.

The appellant submits that document D5, on pages 110 to 111, described the use of centrifuge technology to carry out separation of materials by pumping a slurry into a cylindrical bowl and applying centrifugal force to separate the materials by density. However, it cannot be considered a "workshop modification" to replace a screen intended for separating the paper fiber component from the residual component by a centrifuge. Firstly, the "sorting" addressed in document D5 refers to the sorting of mixtures of plastics (see page 107, first paragraph in section 4.5). The appellant has not convincingly shown that it is commonly known to use centrifuges for the purpose of separating a paper fiber component from plastic and/or plastic/metal particles, as is the purpose of the screen 10 in document D1.

Secondly, screen 10 of document D1 separates material based on the particle size (see column 7, lines 53 to

56), while a centrifuge separates material based on its specific gravity (see sentence bridging pages 110 and 111 of document D5). There was no suggestion to use a centrifuge for the same purpose as the screen 10 of document D1 since the two operate based on different physical properties of the materials to be separated.

Thirdly, even if the skilled person had replaced the screen 10 by a centrifuge for separating the fiber component from the residual components, it is not evident that this would have led to a reduction in the moisture content of the residual solid fraction as required by feature 5. Such a course of action would have led to a separation of the residual solid fraction into two streams while the moisture content of the residual solid fraction (being separated into two streams) remained the same.

In view of the appellant's first line of argument, the board concludes that at least feature 5 is not disclosed or rendered obvious by document D1, so the subject-matter of claim 1 is based on an inventive step in view of document D1.

In the second line of argument, the appellant submits that feature 5 was disclosed in respect of the centrifugal separator 68 (see Figure 2 of document D1). The denser fraction leaving through the bottom of separator 68 via line 70 contained water, so that the material leaving the separator 68 via line 72 contained less water than the material entering the separator 68 via line 66.

Feature 5 refers to centrifuging the residual solid fraction so as to reduce its moisture content. The appellant has not provided any support for its

assertion that the term "moisture content" used in feature 5 referred to the absolute amount of moisture, i.e. the absolute amount of water. The board is therefore satisfied that the term "moisture content" in the context of the patent has its usual meaning in the art, i.e. a proportional amount of moisture in a substance.

It cannot be deduced from the mere fact that water is present in the material in line 70 that the material in line 72 has a reduced moisture content, i.e. a smaller proportional amount of moisture than the material in line 66.

In view of the appellant's second line of argument, the board concludes that at least feature 5 is not disclosed or rendered obvious by document D1. In such a situation, the question of whether feature 3b was disclosed or rendered obvious by document D1 is irrelevant.

In the third line of argument, the appellant submits that the skilled person would have removed the centrifugal separator 68 of document D1 to obtain a stream of plastics and metal and would also have replaced the screw press 78 by a centrifuge to reduce the moisture content of the residual solid fraction.

Assuming that the features of claim 1 are read onto the disclosure of document D1 in the way suggested by the appellant in accordance with its third line of argument, the board concludes that document D1 fails to disclose at least feature 5.

Document D1 aims at obtaining substantially pure plastics which can be recycled to high-grade end use

(see last sentence of abstract of document D1). The appellant has not convincingly shown that there was any motivation for the skilled person to modify the method of document D1 for anything other than the purpose explicitly envisaged in that document.

The method of document D1 also results in the additional production of a plastic/metal composite having high amounts of metal, see column 13, lines 18 to 21. No modification of the method of document D1 would have been necessary to produce a plastic/metal stream having a considerable metal content. As a consequence, the skilled person would not have been prompted to remove the separator 68.

The appellant's third line of argument does not render the method of granted claim 1 obvious in view of document D1.

Starting from document D1, the subject-matter of granted claim 1 is not rendered obvious.

6.2 *Inventive step in view of document D2*

As set out above, the subject-matter of granted claim 1 differs from the content of document D2 by feature 6.

The appellant submits that the subject-matter of granted claim 1 did not involve an inventive step in view of document D2, and suggests two different formulations of the objective technical problem solved in relation to feature 6.

According to the appellant's first line of argument, the objective technical problem was to find an

alternative rotor design. The appellant submits that, in trying to solve this technical problem, the skilled person would have been in a "one-way street" situation since the only alternative to a non-cutting rotor was a cutting rotor.

The appellant, however, has not convincingly shown why the skilled person would have been in such a "one-way street" situation and why they would not have considered other alterations to the rotor design of document D2 (for example in terms of rotor length, thickness, pitch angle, etc.). Document D2 discloses using a non-cutting or dull rotor. Providing a cutting rotor would be against the clear teaching of document D2. Without any suggestion to the contrary, the skilled person starting from document D2 and trying to find an alternative rotor design would thus not have chosen a cutting rotor.

According to the appellant's second line of argument, the objective technical problem was how to improve the effectiveness of the drying step.

The appellant has however not convincingly shown that the skilled person would have been prompted to implement a step of shredding the solid fraction to increase the effectiveness of the drying process. While it is plausible that shredding may lead to an increased surface area, which in turn may lead to a faster drying process, the plausibility of this line of argument does not imply that it was obvious to the skilled person to shred the solid fraction.

Page 95 of document D5 discloses that size reduction of waste plastics is the creation of suitable particle size and shape that reduces volume and creates a

homogeneous feedstock, and is also a step towards subsequent usage. This citation does not suggest shredding material to improve the effectiveness of a drying step.

According to decision T 1601/15, cited by the appellant, the person skilled in the art does not need any suggestion to apply their common general knowledge. The appellant has however not convincingly shown that it was within the skilled person's common general knowledge to consider shredding a material to improve the effectiveness of a subsequent drying step. Page 95 of document D5 fails to suggest providing a shredding step to this end.

The respondent submits that the objective technical problem was to obtain homogeneous material to be provided to the compactor. The appellant is of the opinion that the skilled person would also have arrived at the subject-matter of granted claim 1 in view of this technical problem.

According to the appellant, it was known from document D5 (which represented the common general knowledge) that shredding could take place at the beginning of the process. The skilled person would also have considered a shredding step later in the process so that less material needed to be shredded. Shredding the solid fraction after separating the cellulose had the additional advantage that the length of the cellulose fibers was preserved, which facilitated recycling of the fibers. It would have been a mere workshop modification of the process of document D2 to include a shredding step subsequent to centrifuging and prior to drying the solid fraction to provide a

homogeneous material for further processing in the method.

As already indicated in the decision under appeal (see point 6.1.6 of the Reasons), document D5 discusses shredding in the context of shredding the feedstock (page 95, section 4.3, first paragraph: "... and creates a homogeneous feedstock"), and mentions as examples the shredding of products such as films, containers, bottles, cans or sprue waste. Therefore, even if the skilled person was starting from document D2 and aiming at solving the above technical problem, they would at most have been prompted to provide shredding of the feedstock, i.e. the starting composite material comprising cellulose, plastic material, aluminium and water obtained from a pulping process.

The appellant submits that the skilled person, apparently after having combined document D2 with the common knowledge exemplified by document D5, would have recognised that they could move the shredding process to a later stage in the process, to follow the cellulose removal, so that the only material that would need to be shredded would be the residual solid fraction. The skilled person's motivation for rearranging the method steps would have been that it was not necessary to expend energy to shred the cellulose and that the length of the cellulose fibers could be preserved.

This line of argument is essentially based on the assumption that the skilled person would have proceeded as follows. Having successfully solved the first objective technical problem (to obtain homogeneous material to be provided to the compactor) by implementing an additional step of shredding the

composite material in the method of document D2, the skilled person would have recognised that a new (i.e. second) technical problem arose. This problem related to wasting energy to shred the cellulose and obtain fibers that were too short for recycling. The second technical problem is not present in document D2 but is only caused by the solution to the first technical problem. The skilled person would have recognised the second technical problem and, aiming at solving it, would have deviated from the solution to the first technical problem they had found from their common general knowledge exemplified by document D5, and would have arrived at a new solution in view of the second technical problem.

The appellant refers to case law according to which, if the technical problem that the skilled person has set themselves to solve brings them to the solution step by step, with each individual step being obvious to them in terms of what they have achieved so far and what remains for them to do, the solution is obvious to them on the basis of the prior art, even if two or more such steps are required, and it does not involve an inventive step (see Case Law, I.D.9.19.9).

The situation in hand differs from that underlying the cited case law. First, the appellant's line of argument is not that a (single) technical problem that the skilled person has set themselves to solve brings them to the solution step by step. In the case in hand, the skilled person would have needed to solve a first technical problem (to obtain homogeneous material to be provided to the compactor) before a second technical problem even occurred. Second, the appellant has not convincingly shown that the skilled person would actually have recognised the second technical problem

suggested by the appellant, and that it would further have been obvious to the skilled person to solve this problem by moving the shredding step to a stage later in the process. The appellant's line of argument is, rather, based on an inadmissible *ex post facto* analysis (see also Case Law, I.D.6).

The skilled person starting from document D2 and aiming at solving the above objective technical problem (to obtain homogeneous material to be provided to the compactor) would not have arrived at the feature combination of claim 1 as granted in an obvious manner.

The subject-matter of granted claim 1 is therefore based on an inventive step in view of document D2 alone and in view of a combination of document D2 and the common general knowledge as evidenced by document D5.

6.3 *Inventive step in view of the skilled person's common general knowledge exemplified by document D5*

In its letter dated 14 July 2017, the appellant objected that the subject-matter of granted claim 1 did not involve an inventive step in view of the common general knowledge exemplified by document D5. The respondent requested that this objection not be admitted into the appeal proceedings.

It is undisputed that this objection has not been raised previously. In accordance with Article 13(1) RPBA 2020, any amendment to a party's appeal case after it has filed its grounds of appeal or reply is subject to the party's justification for its amendment and may be admitted only at the discretion of the board.

The appellant submits that this objection was *prima facie* relevant. This view is not convincing. Document D5 is a handbook that, in chapter 4, describes "[m]ethods of pretreatment". The appellant refers to different sections of this chapter, submitting that document D5 set out each of the claimed method steps in a logical progression, but does not provide any support for this assumption. Chapter 4 of document D5 contains different sections, and it is not apparent that the combination of elements described in the different sections cited by the appellant would have been within the skilled person's common general knowledge. This cannot be inferred *prima facie* from the section numbering in document D5 alone, as this might be incidental. To successfully show that the claimed subject-matter was obvious in view of the common general knowledge, it is not sufficient to show that the individual method steps were commonly known, but also that their combination was obvious to the skilled person.

On page 6 of its letter, the appellant refers to an implicit disclosure regarding a cellulose content of less than 2% (see feature 6). In view of the appellant's line of argument, it is, however, not *prima facie* evident that the skilled person would inevitably have arrived at such a cellulose content, as suggested by the appellant.

The above objection is thus not *prima facie* relevant to the assessment of inventive step, but gives rise to additional concerns.

In view of the above, the board, exercising its discretion under Article 13(1) RPBA 2020, decided not to admit the objection of lack of inventive step on the

basis of common general knowledge as exemplified by document D5.

6.4 *Summary on the ground for opposition under Articles 100(a) and 56 EPC (lack of inventive step)*

The ground for opposition under Articles 100(a) and 56 EPC does not prejudice the maintenance of the patent as granted.

7. Respondent's requests concerning the opposition division's decision on apportionment of costs

In the decision under appeal, the opposition division ordered the patent proprietor to pay 100% of the costs of the oral proceedings scheduled for 23 February 2016 to the opponent under Article 104(1) EPC.

The respondent's requests concerning the opposition division's decision on the apportionment of costs are inadmissible for the following reasons.

7.1 According to Article 108, first sentence, EPC and Rule 99(1)(c) EPC, the notice of appeal must contain "a request defining the subject of the appeal". This requirement pertains to one of the main functions of the notice of appeal. The appellant's initial request defines the extent of the appeal proceedings (see decisions G 9/92 and G 4/93, OJ EPO 1994, 875, point 1 of the Reasons; and decision G 1/99, OJ EPO 2001, 381, point 6.2 of the Reasons) and the appellant may file an appeal against the decision taken as a whole or in part (see decision G 1/99, supra, point 6.2 of the Reasons). This is the principle of free party disposition (*ne*

ultra petita) (see decisions G 9/92 and G 4/93, *supra*, point 1 of the Reasons and G 1/99, *supra*, point 6.2 of the Reasons). This is also confirmed by the explanatory remarks to Rule 99 EPC 2000 in Special edition No. 5, OJ EPO 2007, 154, where it is stated: "*The requirement of Rule 99(1)(c) EPC 2000 takes into account that the appellant's initial request - according to the case law of the Enlarged Board of Appeal (see G 9/92 and G 4/93, OJ EPO 1994, 875, and G 1/99, OJ EPO 2001, 381) - defines the subject of the appeal and thereby the framework of the appeal proceedings.*"

The meaning of the generally-recognised procedural principle of free party disposition is that the appeal cannot extend to issues that, in view of the notice of appeal, the appellant themselves did not wish to be a subject of the appeal, nor can the extent of the rights be decided beyond the extent requested (see also decision T 689/09, point 1.7 of the Reasons).

In the case in hand, the notice of appeal clearly shows that the appellant did not appeal against the opposition division's decision on the apportionment of costs. Nor does the statement of grounds of appeal refer to the issue of the apportionment of costs. Therefore the opposition division's decision in this respect is not the subject of the present appeal. It follows that the question of the principle of *reformatio in peius* is irrelevant.

It also follows that the present situation is not comparable with the example case presented by the respondent. Indeed, in the example case where the patent proprietor appeals against a decision of the opposition division which adversely affects them alone and the opponent raises further objections to the

patent as granted or amended, the opponent's objections relate to the subject of the appeal and therefore do not extend the subject of the patent proprietor's appeal.

In view of the above, the issue of the apportionment of costs is a legal issue which may not be dealt with and decided on in the appeal proceedings, since it is not the subject of the present appeal. For that reason alone, the respondent's requests regarding the decision on the apportionment of costs are not admissible.

7.2 In addition, the board wishes to refer to decision T 753/92, which states in point 3.1 of the Reasons:

"Respondent I is adversely affected by the decision under appeal only in so far as his request for apportionment of costs has been rejected. If the Respondent I had lodged an appeal against this decision, the appeal, with the apportionment of costs as its sole subject, would have been inadmissible under Article 106(4) EPC. The fact that the Respondent I submitted the request for apportionment of costs merely as a party to the appeal proceedings as of right (Article 107 EPC) cannot, in the Board's judgement, render such a request admissible without contravening the principle of equal treatment. This request has therefore to be rejected as inadmissible." (confirmed in decision T 762/96, point 8 of the Reasons, which also refers to decision G 9/92, point 16 of the Reasons)

Although the facts in decisions T 753/92 and T 762/96 are different from those in the case in hand, the general considerations of these decisions are

applicable here *mutatis mutandis* since, if the respondent had lodged an appeal against the opposition division's decision on apportionment of costs, the appeal, with the apportionment of costs as its sole subject, would have been inadmissible under Article 106(3) and Rule 97(1) EPC. The respondent is only a party to the proceedings under Article 107, second sentence, EPC, and does not have the right to file a "cross-appeal" without limit of time and, unlike the rights the respondent would have as appellant, its requests are therefore subject to restrictions (see also decision G 9/92, OJ EPO 1994, 875, point 16 of the Reasons).

8. Summary

Since none of the grounds for opposition on which the respondent relies prejudices the maintenance of the patent as granted, the appeal must be dismissed.

The respondent's requests concerning the apportionment of costs are inadmissible because the opposition division's decision on the apportionment of costs is not the subject of the appeal in hand.

Order

For these reasons it is decided that:

1. The appeal is dismissed.
2. The respondent's requests concerning the apportionment of costs are inadmissible.

The Registrar:

The Chairman:



N. Schneider

P. Lanz

Decision electronically authenticated