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Datasheet for the decision of 16 April 2026

Case Number: T 1438/24 - 3.5.01

Application Number: 21182962.7

Publication Number: 4111892

IPC: A24F40/60

Language of the proceedings: EN

Title of invention:
AEROSOL-GENERATING DEVICE

Applicant:
Philip Morris Products S.A.

Headword:
Two-array LED display/PHILIP MORRIS PRODUCTS

Relevant legal provisions:
EPC Art. 52(2)(d), 56

Keyword:
Claim construction in light of G1/24 - narrow claim interpretation based on description and drawings (no - not accepted)
Inventive step – simultaneous display of different technical states of an e-cigarette instead of displaying them at different times (no – not technical) - display layout with a first annular area surrounding a second area (no – not technical)

Decisions cited:
G 0001/24, T 0115/85, T 0641/00, T 0928/03, T 1741/08, T 1562/11, T 1802/13, T 1999/23, T 2027/23

Catchword:
[T]he automatic provision of visual indications of conditions prevailing in a technical apparatus may, in principle, produce a technical effect [...].

... The actual difference between claim 1 and D1 resides solely in the decision to present different technical conditions simultaneously. This does not provide the user with any additional insight into the internal operation of the device beyond what is already disclosed in D1. Rather, it merely concerns the manner in which information already available in D1 is presented to the user.

While it may be accepted that the simultaneous presentation of multiple items of technical information may be perceived by some users as clearer or more practical, other users may regard such a presentation cluttered or less legible and may prefer the one-at-a-time presentation of D1. Be it as it may, according to the established case law, effects such as improved clarity of presentation or reduced cognitive burden, which merely reflect subjective user preferences, do not constitute technical effects and therefore cannot contribute to an inventive step [...].

(See point 2.16 of the reasons)

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Case Number: T 1438/24 - 3.5.01

D E C I S I O N
of Technical Board of Appeal 3.5.01
of 16 April 2026

Appellant: (Applicant)	Philip Morris Products S.A. Quai Jeanrenaud 3 2000 Neuchâtel (CH)
Representative:	Reddie & Grose LLP The White Chapel Building 10 Whitechapel High Street London E1 8QS (GB)
Decision under appeal:	**Decision of the Examining Division of the European Patent Office posted/electronically transmitted on 27 June 2024 refusing European patent application No. 21182962.7 pursuant to Article 97(2) EPC.**

Composition of the Board:

Chairman	R. Moser
Members:	W. Zubrzycki
	E. Mille

Summary of Facts and Submissions

I. This is an appeal against the decision of the examining division to refuse European patent application No. 21182962.7 for lack of inventive step (Article 56 EPC).

II. The examining division held that the main request and auxiliary requests 1, 2, 2A to 2E, and 3 to 6 lacked an inventive step in view of either D1 (EP 3 791 740 A1) or D2 (US 2017/259170 A1).

III. In the statement setting out the grounds of appeal, the appellant requested that the decision be set aside and that a patent be granted on the basis of the refused requests that were re-filed therewith.

IV. In the communication pursuant to Article 15(1) RPBA, the Board set out its preliminary opinion that all requests lacked an inventive step over D1.

V. In a reply, the appellant provided arguments in favour of inventive step.

VI. The oral proceedings took place by videoconference on 16 April 2026. The appellant's final requests were identical to their initial requests. At the end of the oral proceedings, the Chairman announced the decision.

VII. Claim 1 of the main request reads:

" *An aerosol-generating device (10) for heating an aerosol-forming substrate (31) to generate an inhalable aerosol during a usage session, the aerosol-generating device comprising:*

control electronics (100);

an outer lighting array (61) partially or wholly surrounding an inner lighting array (62); in which the control electronics are coupled to the outer and inner lighting arrays and configured to:

i) selectively activate one of the outer and inner lighting arrays to generate a first predetermined light emission conveying first data indicative of a state of the aerosol-generating device;

and

ii) selectively activate the other of the outer and inner lighting arrays to generate a second predetermined light emission conveying second data indicative of a state of the aerosol-generating device, wherein the first data and the second data are different from one another."

VIII. Claim 1 of auxiliary request 2E reads:

" *An aerosol-generating device (10) for heating an aerosol-forming substrate (31) to generate an inhalable aerosol during a usage session, the aerosol-generating device comprising:*

control electronics (100);

an outer lighting array (61) partially or wholly surrounding an inner lighting array (62); in which the control electronics are coupled to the outer and inner lighting arrays and configured to:

i) selectively activate one of the outer and inner

lighting arrays to generate a first predetermined light emission conveying first data indicative of a state of the aerosol-generating device;

and

ii) selectively activate the other of the outer and inner lighting arrays to generate a second predetermined light emission conveying second data indicative of a state of the aerosol-generating device, wherein the first data and the second data are different from one another;

wherein the first data relates to a state of progression of an operational phase of the aerosol-generating device, the second data relates to a different state of the aerosol-generating device, the first predetermined light emission is a predetermined phase progression light emission, and the second predetermined light emission is a predetermined state light emission;

wherein the control electronics (100) are configured to:

i) selectively activate the outer lighting array (61) to generate the predetermined phase progression light emission indicative of and in response to progression of the operational phase of the aerosol-generating device;

and

ii) selectively activate the inner lighting array (62) to generate the predetermined state light emission indicative of and in response to the different state of

the aerosol-generating device;

wherein the control electronics are configured to progressively reduce or increase an activated length of the outer lighting array with progression through the operational phase of the aerosol-generating device to generate the predetermined phase progression light emission;

in which the control electronics are configured to generate the predetermined phase progression light emission and the predetermined state light emission simultaneously;

in which the operational phase is the usage session, or a pre-heating phase;

wherein the outer lighting array circumscribes at least 80%, or preferably at least 90%, or preferably all of the perimeter of the inner lighting array;

wherein one or each of the outer lighting array and the inner lighting array is an arcuate segment extending around an arc of at least 180 degrees, preferably in which the arcuate segment extends around an arc of 360 degrees to define a closed annulus."

IX. Claim 1 of auxiliary requests 1, 2, 2A, 2B, 2C, 2D, 3, 4 and 5 each includes a different subset of the features of claim 1 of auxiliary request 2E.

X. Claim 1 of auxiliary request 6 reads:

" *An aerosol-generating device (10) for heating an aerosol-forming substrate (31) to generate an inhalable aerosol during a usage session, the aerosol-generating*

device comprising:

control electronics (100);

an outer lighting array (61) partially or wholly surrounding an inner lighting array (62); in which the control electronics are coupled to the outer and inner lighting arrays and configured to:

i) selectively activate one of the outer and inner lighting arrays to generate a first predetermined light emission conveying first data indicative of a state of the aerosol-generating device;

and

ii) selectively activate the other of the outer and inner lighting arrays to generate a second predetermined light emission conveying second data indicative of a state of the aerosol-generating device, wherein the first data and the second data are different from one another;

wherein the first and second data are indicative of any two of:

a) a power source (11) of the aerosol-generating device containing sufficient energy to complete a single usage session;

b) a power source of the aerosol-generating device containing sufficient energy to complete two or more usage sessions;

c) a power source of the aerosol-generating device containing a level of energy below a predetermined

threshold level of energy;

d) selection or activation of one of a first predetermined thermal profile and a second predetermined thermal profile, in which each of the first and second predetermined thermal profiles define a heating profile for heating of the aerosol-forming substrate (31) by an electrical heating arrangement (40) over the usage session, the first and second predetermined thermal profiles being different to each other;

e) the aerosol-generating device being in one of a pause mode state or a reactivation state;

f) selection or activation of a change in operational state of the aerosol-generating device;

g) progression through the usage session; and

h) progression through a pre-heating phase in which an electrical heating arrangement is heated to a predetermined target temperature."

XI. The appellant argued as follows:

According to decision G 1/24, the description and drawings had to be always consulted to interpret the claims when assessing the patentability of an invention under Articles 52 to 57 EPC. Applying this finding to the present case, the inner and outer lighting arrays in claim 1 should be interpreted in the light of the embodiment described in the paragraph bridging pages 19 and 20 and shown in Figures 1 and 4 of the originally filed application. In that embodiment, the outer and inner lighting arrays each had a respective display

window through which light emitted by the corresponding lighting means of the arrays was directed. Since the windows were distinct structural elements, the lighting arrays, of which those windows formed part, were likewise distinct structural features of the aerosol-generating device hardware.

The Board's interpretation of the claim as covering a continuous LED area whose inner and outer parts were selectively activated by software disregarded the presence of the two separate windows and was therefore incorrect. In fact, that interpretation already failed in view of the claim wording alone. The claim clearly stated that the shape and placement of the lighting arrays did not change over time, implying that these arrays were distinct structural features of the aerosol-generating device's hardware and not merely transient visual effects produced by the device's software.

As a consequence of this incorrect interpretation, D1 was taken as the starting point for the assessment of inventive step. However, under the correct interpretation of the claim, D1 would not have been a suitable starting point, since it disclosed an aerosol-generating device comprising only a single illumination region located behind one translucent window, rather than two illumination regions arranged behind different windows, as required by claim 1.

D2, which disclosed four sets of petal-shaped LEDs arranged behind respective windows and thus multiple distinct lighting arrays, was a more appropriate starting point; however, the claimed subject-matter involved an inventive step even when starting from this more promising prior art.

The claimed arrangement of the outer and inner arrays provided a compact footprint, thereby saving space on the device. The case law recognised compactness and efficient use of space as indicators of technical character. Moreover, this arrangement allowed the control electronics and the connections between the control electronics and the lighting arrays to be accommodated within a correspondingly compact area of the aerosol-generating device.

Starting from D1, the skilled person would not have thought to provide two separate lighting arrays, each with its own window. The reason for this was that there was not enough space to add another lighting array with its own window surrounding the illumination region of D1, as that region already extended across the entire available space.

Notwithstanding the above issue concerning the interpretation of the claim, claim 1 involved an inventive step for additional reasons, which would apply even if the Board's interpretation of the claim were adopted.

Firstly, contrary to the Board's preliminary opinion that the expression "a state of the aerosol-generating device" could encompass business-related data, the skilled person, when reading the claim in light of the description and drawings, would understand this expression as referring to a technical condition of the device. Accordingly, in claim 1 two technical conditions of the aerosol-generating device were indicated simultaneously. As a result, the user was "better informed" about the device's operations than in D1, where only one technical condition was indicated at

a time. This facilitated appropriate user interaction with and adjustment of the device. According to the established case law, facilitating continuous user-machine interaction constituted a technical effect contributing to inventive step. D1 provided no suggestion to indicate multiple technical conditions simultaneously.

Secondly, the annular shape of the outer lighting array was based on technical considerations. In particular, an annulus or annular structure provided a longer effective path length between its start and end points than a linear structure occupying a comparable area. This allowed a more granular graphical representation of the progress of a user session. Thus, the user could perceive the progress with greater detail, which further facilitated interaction with the aerosol-generating device.

Thirdly, as laid down in T 928/03, expanding the functionality of a display while using only a minimal area of the display surface constituted a technical effect. A corresponding effect was achieved in the present case by dividing the limited display area of the aerosol-generating device into two sub-areas.

Accordingly, starting form D1, claim 1 solved the technical problem of providing a compact and space-efficient arrangement of lighting structures for an aerosol-generating device capable of conveying information relating to multiple technical conditions of the device, while enabling more granular indications of those conditions in a space-efficient manner. In the absence of any hint in D1 or D2 towards the claimed solution, claim 1 would not have been obvious to the

skilled person.

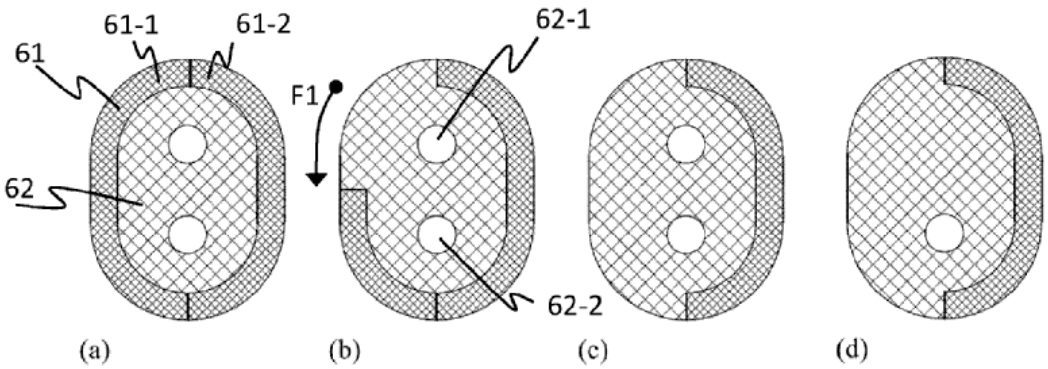
Reasons for the Decision

1. The invention

1.1 Claim 1 of auxiliary request 2E, which defines the invention in its most detailed form, concerns the provision of two display areas on an aerosol-generating device (hereinafter "device"), such as an e-cigarette (not claimed). The display areas ("inner lighting array" and "outer lighting array" in the claim) graphically present data to a user that indicates different states of the device, see originally filed application, paragraph bridging pages 1 and 2 and page 2, penultimate paragraph.

1.2 The inner lighting array and the outer lighting array are provided on the device's housing and include a number of lighting means (not claimed), such as light-emitting diodes (LEDs), see paragraph bridging pages 19 and 20.

More specifically, the claimed arrangement of the lighting arrays is illustrated in Figure 11(a) to 11(d).



As shown therein, LEDs assigned to the outer lighting array 61 form a partial or complete annulus surrounding LEDs assigned to the inner lighting array 62 (last two features).

The LEDs are individually driven by control electronics (page 2, penultimate paragraph; page 20, second paragraph), so that the lighting arrays simultaneously present visual information indicative of two different states of the device ("a first predetermined light emission" and "a second predetermined light emission").

1.3 More specifically, the outer lighting array 61 graphically indicates the progression through a usage session of the device (third- and fifth-last features). Although not claimed, but disclosed in the application, the usage session corresponds to a continuous smoking session having a predetermined maximum duration and comprising a predetermined number of puffs, see page 2, fourth paragraph.

That progression is indicated by increasing or reducing the length of the illuminated portion of the annulus forming the outer lighting array (fourth-last feature). In the embodiment shown in Figures 11(a) to 11(c), the length of the illuminated area is reduced, with arrow F1 (Figure 11(b)) indicating the direction in which the LEDs of the annulus are progressively deactivated, see page 27, second paragraph.

1.4 Simultaneously, the inner lighting array 62 indicates another, different state of the device (first (i) feature and second (ii) feature). While Figures 11(b) and 11(d) show that this state is indicated using dots 62-1 and 62-2, the claim leaves open which graphical means are used to this end.

The claim also leaves open the nature of the information that constitutes this other state of the device, and it was discussed whether this information might also encompass non-technical data. However, the Board ultimately accepted the appellant's interpretation of the term "different state of the aerosol-generating device", according to which it refers to an unspecified technical condition of the device (see section XI above) that differs from the progression information indicated by the outer lighting array.

2. Auxiliary request 2E, Article 56 EPC

2.1 The Board finds it convenient to discuss auxiliary request 2E first.

2.2 The examining division found that claim 1 lacked an inventive step over D2, see points 15.4 and 18.2 of the decision. However, under point 14.3 of the decision, they indicated that essentially the same line of reasoning could also be applied with respect to D1. The appellant argued that D2 was a more suitable starting point for assessing inventive step than D1, see section XI above.

The Board nevertheless prefers to start from D1 because, as explained below, the e-cigarette disclosed therein does not require any hardware modifications to arrive at the claimed invention. By contrast, the LED display of D2, which comprises four relatively small sets of petal-shaped LED arrays (see Figure 1D), differs more significantly from the arrangement defined in claim 1. In particular, given their limited size, it is questionable whether those petal-shaped LED arrays,

without being enlarged, would be suitable for forming two arrays arranged as required by the claim.

2.3 Turning to D1, it discloses an e-cigarette, corresponding to the device in claim 1, featuring a rectangular LED display ("illumination region", paragraphs [0022] and [0063]). Furthermore, a processor, corresponding to the control electronics in claim 1, drives the LEDs to indicate the state of a process taking place in the e-cigarette, see paragraphs [0019] and [0022]. Figures 2A to 2C, reproduced below, show an example of such a graphical indication.

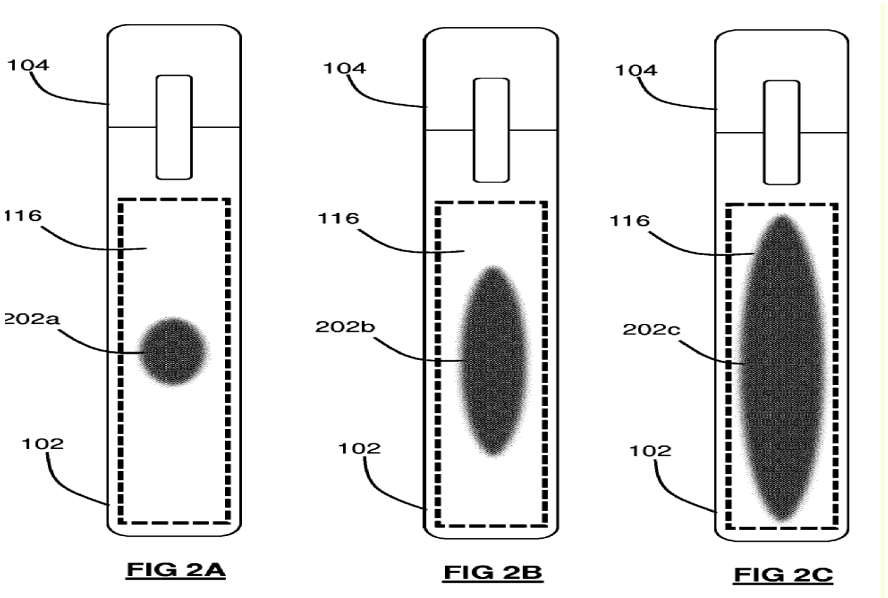


FIG 2A FIG 2B FIG 2C

As shown therein, the indication of a process is achieved by increasing or decreasing an illuminated area (202a–202c) within the illumination region in proportion to the progress of the process, see paragraphs [0023] and [0064].

Furthermore, D1 discloses at [0028] that one of the graphically represented processes is the progress through a smoking session. In this case, the size of the illuminated area decreases as the number of puffs

taken increases. This corresponds to indicating the progression through the usage session in claim 1.

It follows implicitly from D1 ([0064] and [0065]) that the processor is capable of driving the LEDs in such a way that they may illuminate any portion of the illumination region.

It is also disclosed that different technical conditions may be indicated on the illumination region ([0025] to [0028]), but it is not disclosed that multiple technical conditions are indicated simultaneously.

2.4 Thus, claim 1 differs from D1 in that:

U1) the device comprises an inner and outer lighting array;

U2) the control electronics are configured to activate these lighting arrays separately;

U3) the outer lighting array is an arcuate segment extending around an arc of at least 180 degrees and circumscribing the inner lighting array by at least 80% (last two features);

U4) the progression of the usage session is indicated on the outer lighting array by increasing or reducing its activated (illuminated) length, whereas in D1 the progression is indicated by increasing the size of an illuminated area around the centre of the illumination region;

U5) the inner lighting array is activated simultaneously with the outer lighting array to

indicate a further state of the device, whereas in D1 only one technical condition is indicated at a time.

Interpretation of distinguishing features

2.5 The central issue in this appeal is the interpretation of the distinguishing features.

The Board considers that, on the basis of its wording alone, the claim encompasses any arrangement in which a first set of LEDs is surrounded by a second, annularly arranged set of LEDs and in which the claimed arrangements are achieved by suitable software control of the LEDs in these sets.

In particular, at the structural (hardware) level, the claim encompasses the LED arrangement shown in Figures 2A to 2C of D1 (point 2.3 above), in which the set of LEDs located in region 202a (Figure 2A) is surrounded by an annular set of LEDs, namely the LEDs located in the area added to area 202a by area 202c (Figure 2C). The claim does not impose any structural limitation that could distinguish it from the arrangement of D1; in particular, it does not preclude the outer lighting array itself from being surrounded by further LEDs.

Based on this interpretation, the Board considers that the claim does not differ from D1 at the structural (hardware) level. The difference lies solely in the manner in which the LEDs are driven, namely in the fact that the control electronics are configured to activate the two lighting arrays separately in order to display different information, and not merely capable of doing so.

2.6 The appellant argued that, applying the findings of decision G 1/24 and in light of the embodiment described in the paragraph bridging pages 19 and 20 and shown in Figures 1 and 4 of the application as filed, the claim should be interpreted as including two separate translucent windows, one for each of the two lighting arrays.

If this interpretation were accepted, the claimed lighting arrays would be distinct hardware units due to the presence of the two windows, rendering the above interpretation untenable and thus calling into question the suitability of D1, which disclosed only one window, as a starting point for the assessment of inventive step.

2.7 The appellant did not dispute that claim 1 did not specify the presence of two windows either expressly or implicitly; these were disclosed only in the description and the drawings.

Rather, the appellant's argument is based on the finding in decision G 1/24 that, even if the wording of the claim is clear in itself, the description and drawings shall always be consulted to interpret the claims when assessing the patentability of an invention under Articles 52 to 57 EPC. On this basis, the appellant submitted that claim 1 should be interpreted as defining two windows, even though its wording was not limited accordingly. The Board notes that this type of argument has been frequently encountered in recent case law.

2.8 The Board does not subscribe to the appellant's reading of G 1/24. In the Board's view, the fact that the description and drawings must be consulted for the

purpose of interpreting a claim does not justify reading into the claim limiting features that are absent from its wording and disclosed only in an embodiment of the invention. Such an approach would be inconsistent with the established case law of the Boards of Appeal on claim interpretation, which decision G 1/24 did not overturn. The Board further notes that its understanding of G 1/24 is supported by a considerable number of recent decisions, for example T 2027/23 - *Turnable ladder/IVECO*, reasons 3.5.4 and 3.5.6, and T 1999/23 - *Fothotermisches Messgerät/ OPTISENSE*, reasons 5.6 to 5.10.

2.9 The appellant also argued that recourse to the description and drawings was not even necessary, because the wording of the claim itself implied that the shape and placement of the lighting arrays did not change over time; they were permanently present on the device. This, in the appellant's view, rendered the Board's interpretation untenable, since, if the arrays were merely generated by controlling LEDs, they would only be displayed when the corresponding control software was executed and would thus not be permanently present.

However, contrary to the appellant's view, the Board cannot see that the claim excludes embodiments in which the arrays are only provided during the period in which the software providing them is executed.

2.10 For the above reasons, the Board does not accept the appellant's interpretation of claim 1 and judges that its own interpretation is to be used as the basis for assessing inventive step.

Assessment of obviousness

2.11 As set out above, under the Board's interpretation, the differences between claim 1 and D1 relate solely to the manner in which the LEDs are controlled by the control electronics; there is no difference in the physical arrangement of the LEDs.

This entails that the effects asserted by the appellant - namely, a more compact footprint, hardware miniaturisation and space savings compared to D1 - are not achieved.

With particular regard to the appellant's assertion that the claimed arrangement of the lighting arrays allows the control electronics and the electrical connections to the lighting arrays to occupy a compact footprint, the Board notes that the claim neither defines nor implies how the control electronics and electrical connections are physically arranged.

2.12 The appellant's argument that the e-cigarette of D1 did not provide sufficient space for the lighting arrays defined in claim 1 is not convincing. As explained at point 2.5 above, Figures 2A and 2C of D1 clearly show the claimed hardware arrangement, namely a set of LEDs surrounded by an annular set of additional LEDs.

2.13 Under the Board's interpretation, the claimed solution, starting from D1, amounts to, first, controlling the LEDs within the illumination region such that not only the progress through a smoking session is indicated but also, simultaneously, a further technical condition of the device and, second, presenting these two technical conditions graphically using a layout defined by

features U3 and U4.

2.14 The Board judges that, irrespective of their technical implementation by suitable programming the processor, both aspects *per se* relate to the presentation of information as such and, therefore, lack technical character (Article 52(2)(d) EPC).

2.15 Concerning the first aspect, the appellant argued that, by being able to perceive two technical conditions of the device simultaneously, the user was "better informed" and could therefore adjust the device more appropriately.

2.16 The Board accepts that the automatic provision of visual indications of conditions prevailing in a technical apparatus may, in principle, produce a technical effect (see T 115/85 - *Computer—related invention—IBM*, headnote I), in particular where the displayed information supports the user in interacting with the apparatus. However, no such effect is achieved over D1, which already discloses the indication of the same technical information as defined in claim 1, namely multiple technical conditions of the device.

The actual difference between claim 1 and D1 resides solely in the decision to present different technical conditions simultaneously. This does not provide the user with any additional insight into the internal operation of the device beyond what is already disclosed in D1. Rather, it merely concerns the manner in which information already available in D1 is presented to the user.

While it may be accepted that the simultaneous presentation of multiple items of technical information

may be perceived by some users as clearer or more practical, other users may regard such a presentation cluttered or less legible and may prefer the one-at-a-time presentation of D1. Be it as it may, according to the established case law, effects such as improved clarity of presentation or reduced cognitive burden, which merely reflect subjective user preferences, do not constitute technical effects and therefore cannot contribute to an inventive step, see T 1741/08 - *GUI layout/SAP*, reasons, point 3.2; T 1802/13 - *Brain stimulation/CLEVELAND*, reasons, point 2.1.7.

Moreover, the Board notes that it is doubtful whether the display of information relating to the progression of a smoking session can be regarded as assisting the user in controlling the aerosol-generating device. At most, such information may enable the user to adapt their smoking behaviour on the basis of the displayed information, for example by reducing the rate of consumption in order to prolong the smoking session. Such behavioural adaptation, however, does not amount to controlling any technical operation of the aerosol-generating device.

2.17 Turning to the second aspect, the Board accepts that the layout defined by features U3 and U4 may be regarded as making efficient use of the available display space, see decision, point 15.2.

However, following the approach taken *inter alia* in T 1562/11 - *Closing out white space/SAP* (reasons, point 2.5), the Board agrees with the examining division (decision, point 15.4) that the arrangement of graphical objects within a limited display space, even if making optimal use of that space, does not involve any technical considerations and does not go beyond the

presentation of information as such. While T 1562/11 concerned the presentation of information on a computer screen, the Board considers that the principles established therein apply equally to other types of displays, including the LED arrays of claim 1 and D1.

2.18 Furthermore, contrary to the appellant's view, the Board does not recognise in the present case a technical effect comparable to that identified in T 928/03 - *Video game/KONAMI*. In that decision, the technical effect did not result from expanding a display's functionality while using only a minimal area of the display surface, as alleged by the appellant, but rather from the display of an enlarged image section while simultaneously maintaining an overview of the entire image, see T 928/03, reasons, point 5.3.4. No comparable effect is achieved in the present case.

2.19 Nor is the Board convinced by the argument that shaping the outer lighting array as an annulus improves the granularity of the information shown and thereby enhances the user's interaction with the device.

Contrary to the appellant's allegation, the granularity of the information shown is not determined by the length of the annulus alone, but depends equally on its segmentation, that is, on the length of the segments successively illuminated to represent a technical process. Since the segmentation is not specified in the claim, any such effect remains speculative. By way of illustration, if the progress through a process is indicated by illuminating consecutive segments each spanning 120 degrees, only three distinct indications are available. This corresponds to the number of indications shown in Figures 2A to 2C of D1; no

increased granularity is thereby achieved.

2.20 Accordingly, on the basis of the above assessment of technicality and applying the COMVIK approach (T 641/00 – *Two identities/COMVIK*), the Board considers that the skilled person is not faced with the technical problem formulated by the appellant, but rather with the problem of implementing the non-technical requirement to simultaneously display the progression through a smoking session in an annular area, by increasing or decreasing its illuminated length, and a further technical state of the e-cigarette in an area surrounded by that annular area.

The implementation of this requirement in the system of D1 would be limited to routine reprogramming of the processor controlling the LEDs arranged under the illumination area 116. This lies within the normal competence of the skilled person and is therefore obvious.

2.21 For these reasons, the Board judges that claim 1 of auxiliary request 2E lacks an inventive step (Article 56 EPC).

3. Auxiliary request 6, Article 56 EPC

3.1 Claim 1 of this auxiliary request specifies a list of eight information items, any two of which are to be displayed on the inner and outer lighting arrays. While not explicitly defined in the claim, the Board assumes that the two items are intended to be displayed simultaneously.

3.2 The Board judges that the claimed specification of information items adds nothing inventive. The reason is

that D1 already discloses the display of two of the listed items, namely the progression through a smoking session (item g; see point 2.3 above) and an indication that the battery charge has fallen below a predetermined threshold (item c; see D1, paragraphs [0025] and [0066], second paragraph).

Furthermore, as set out above, the simultaneous display of the progression through a smoking session and a further technical condition, in this case the battery charge, rather than their separate display constitutes a non-technical requirement specification relating to the presentation of information. The implementation of this requirement would have been obvious to the skilled person.

Therefore, claim 1 of auxiliary request 6 lacks an inventive step (Article 56 EPC).

4. Requests other than 2E and 6, Article 56 EPC

Claim 1 of the main request and auxiliary requests 1, 2, 2A, 2B, 2C, 2D, 3, 4 and 5 is broader than claim 1 of auxiliary request 2E and, for the same reasons as those set out above for auxiliary request 2E, lacks an inventive step (Article 56 EPC).

5. Since none of the appellant's requests are allowable, it follows that the appeal must be dismissed.

Order

For these reasons it is decided that:

The appeal is dismissed.

The Registrar: The Chairman:

T. Buschek R. Moser

Decision electronically authenticated