



## PATENTS ACT 1977

|                 |                                                                                    |
|-----------------|------------------------------------------------------------------------------------|
| APPLICANT       | FLIR Belgium BV                                                                    |
| ISSUE           | Whether patent application number<br>GB2216358.8 complies with sections<br>1 and 3 |
| HEARING OFFICER | Nikki Dowell                                                                       |

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## DECISION

### Introduction

- 1 Patent application GB2216358.8 entitled 'Dynamically zoomed gauges systems and methods' was filed on 3 November 2022. This application derived priority from applications US63/278450 and US17/979655 (published as US2023/0141654A1 and granted as US12197714B2) which had respective filing dates of 11 November 2021 and 2 November 2022. Application GB2216358.8 was published on 5 July 2023 as GB2614416.
- 2 The combined search and examination report, dated 28 April 2023, objected that many of the claims lacked novelty based on five patent documents. These documents were stated to be examples of many that disclosed the same features, and the claims were not searched across their entire breadth at this stage.
- 3 The claims were amended, and the search was completed on 20 May 2024. The examination report issued on this date dropped the novelty objection, and instead asserted that the invention, as defined in claims 1-20, was excluded from patentability under Section 1(2) as a computer program and the presentation of information as such.
- 4 Several rounds of amendments and examination reports followed, with further limitations to the claims introduced. Excluded matter remained the main outstanding objection, although lack of clarity in the claims and added matter was raised on occasion.
- 5 On 11 February 2026, the Supreme Court judgement in *EPAl*<sup>1</sup> established that the test for excluded matter from *Aerotel/Macrossan*<sup>2</sup> should no longer be used, and

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<sup>1</sup> *Emotional Perception AI Limited v Comptroller General of Patents, Designs and Trade Marks* [2026] UKSC 3

<sup>2</sup> *Aerotel Ltd v Telco Holdings Ltd & Macrossan's Application* [2006] EWCA Civ 1371

instead set out an approach for claims that contained a mix of technical and non-technical features.

- 6 The examiner agreed with the attorney following a call and written response that they should issue one further examination report using the *EPAI* approach as their earlier reports had objected to excluded matter using the *Aerotel* approach. The report was issued on 26 March 2026. This report objected that the claims lacked inventive step based on two documents from the original five, plus a further document that was used in the prosecution of the US equivalent application. The attorney responded in a letter of 14 April 2026, where they asked that matter be considered by a Hearing Officer for a decision based on the papers on file if the examiner maintained their inventive step objection.
- 7 The matter before me is whether the claimed invention has an inventive step over the prior art.
- 8 The extended compliance period of the application is currently 11 July 2026. A request for a discretionary extension has been received and will be actioned shortly extending the compliance period to 11 September 2026.

### **The law**

- 9 Section 130(7) of the Patents Act 1977 says that:

*...it is hereby declared that the following provisions of this Act, that is to say, sections 1(1) to (4), 2 to 6, 14(3), (5) and (6), 37(5), 54, 60, 69, 72(1) and (2), 74(4), 82, 83, 100 and 125, are so framed as to have, as nearly as practicable, the same effects in the United Kingdom as the corresponding provisions of the European Patent Convention,...*

- 10 Article 52 of the European Patent Convention reads:

*(1) European patents shall be granted for any inventions, in all fields of technology, provided that they are new, involve an inventive step and are susceptible of industrial application.*

*(2) The following in particular shall not be regarded as inventions within the meaning of paragraph 1:*

*(a) discoveries, scientific theories and mathematical methods;*

*(b) aesthetic creations;*

*(c) schemes, rules and methods for performing mental acts, playing games or doing business, and programs for computers;*

*(d) presentations of information.*

*(3) Paragraph 2 shall exclude the patentability of the subject-matter or activities referred to therein only to the extent to which a European patent application or European patent relates to such subject-matter or activities as such.*

- 11 Section 1(1) of the Act sets out the equivalent requirement for invention to be patentable (my emphasis added):

*1(1) A patent may be granted only for an invention in respect of which the following conditions are satisfied, that is to say –*

*a) the invention is new;*

*b) **it involves an inventive step;***

*c) it is capable of industrial application;*

*d) **the grant of a patent for it is not excluded by subsections (2) and (3) or section 4A below;***

*and references in this Act to a patentable invention shall be construed accordingly.*

- 12 Section 1(2) reads (my emphasis added):

*1(2) It is hereby declared that the following (among other things) are not inventions for the purposes of this Act, that is to say, anything which consists of-*

*a) a discovery, scientific theory or mathematical method;*

*b) a literary, dramatic, musical or artistic work or any other aesthetic creation whatsoever;*

*c) a scheme, rule or method for performing a mental act, playing a game or doing business, **or a program for a computer;***

*d) **the presentation of information;***

*but the foregoing provision shall prevent anything from being treated as an invention for the purposes of this Act only to the extent that a patent or application for a patent relates to that thing as such.*

- 13 Inventive step is addressed in Section 3:

*An invention shall be taken to involve an inventive step if it is not obvious to a person skilled in the art, having regard to any matter which forms part of the state of the art by virtue only of section 2(2) above (and disregarding section 2(3) above)*

- 14 The Supreme Court in *EPAI* rejected steps 2 to 4 of the *Aerotel* Approach and, at paragraph 66, said the approach which should be adopted by courts in the UK is that contained in the *Duns*<sup>3</sup> principles other than principle G. Principles A-F are:

*(A) Article 52(1) EPC sets out four requirements to be fulfilled by a patentable invention: there must be an invention, and if there is an invention, it must satisfy the requirements of novelty, inventive step, and industrial applicability.*

*(B) Having technical character is an implicit requisite of an ‘invention’ within the meaning of Article 52(1) EPC (requirement of ‘technicality’).*

*(C) Article 52(2) EPC does not exclude from patentability any subject matter or activity having technical character, even if it is related to the items listed in*

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<sup>3</sup> T 0154/04 (*Estimating sales activity/DUNS LICENSING ASSOCIATES*)

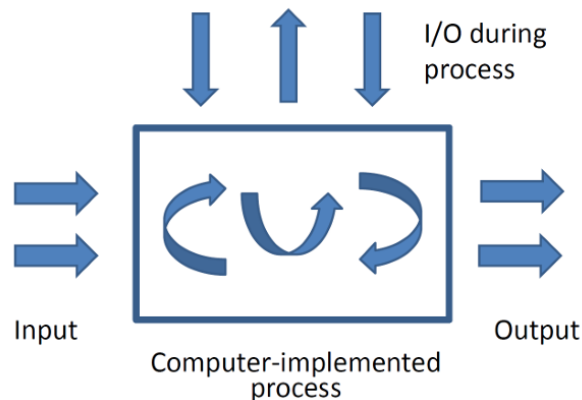
*this provision since these items are only excluded 'as such' (Article 52(3) EPC).*

*(D) The four requirements - invention, novelty, inventive step, and susceptibility of industrial application - are essentially separate and independent criteria of patentability, which give rise to concurrent objections. Novelty, in particular, is not a requisite of an invention within the meaning of Article 52(1) EPC, but a separate requirement of patentability.*

*(E) For examining patentability of an invention in respect of a claim, the claim must be construed to determine the technical features of the invention, i.e. the features which contribute to the technical character of the invention.*

*(F) It is legitimate to have a mix of technical and 'non-technical' features appearing in a claim, in which the non-technical features may even form a dominating part of the claimed subject matter. Novelty and inventive step, however, can be based only on technical features, which thus have to be clearly defined in the claim. Non-technical features, to the extent that they do not interact with the technical subject matter of the claim for solving a technical problem, i.e. non-technical features 'as such', do not provide a technical contribution to the prior art and are thus ignored in assessing novelty and inventive step.*

- 15 In summary, a claim which has some technical character defines an 'invention' under Article 52 (and thus under Section 1 of the Act). This is described as the 'any hardware' test. Following this is a necessary intermediate step of determining which features contribute to the technical character of the invention as a whole. Non-technical features which do not contribute to, or interact with, the technical character of the invention are non-technical "as such" and are therefore filtered out before assessing novelty and inventive step.
- 16 The intermediate step is discussed in depth in paragraphs 100 to 111 of *EPAl* with reference to paragraphs 32, 33, 38 and 39 of *G1/19*. The intermediate step begins with Principle F of *Duns* above and is a necessary part of the process of applying articles 52 to 56 (at least) of the EPC (and hence Sections 1 to 3 Patents Act 1977). The intermediate step requires a feature-by-feature analysis of the subject matter of an invention to ensure that only eligible features are considered in the assessment of inventive step. It is not relevant, at the stage of the intermediate step, whether the technical character of the invention appears to be novel or inventive.
- 17 Some helpful guidance on the intermediate step for computer-implemented inventions is provided in paragraph 85 of *G1/19*, partially reproduced below:



*The above figure shows... “Technical effects” or “technical interactions” are interactions that are different from abstract data input, data output or internal data processing or transfer. Technical input may consist of a measurement; technical output may exist as a control signal used for controlling a machine. Both technical input and technical output are typically achieved through direct links with physical reality. Adaptations to the computer or its operation, which result in technical effects (e.g. better use of storage capacity or bandwidth), are also examples of features that may contribute to inventive step ... In sum, technical effects can occur within the computer-implemented process (e.g. by specific adaptations of the computer or of data transfer or storage mechanisms) and at the input and output of this process. Input and output may occur not only at the beginning and the end of a computer-implemented process but also during its execution (e.g. by receiving periodic measurement data and/or continuously sending control signals to a technical system).*

- 18 Paragraph 65 of *EPAl* confirms that the approach to inventive step laid out in *Pozzoli*<sup>4</sup> remains legitimate. That approach is:
  - (1)(a) *Identify the notional “person skilled in the art”*
  - (1)(b) *Identify the relevant common general knowledge of that person;*
  - (2) *Identify the inventive concept of the claim in question or if that cannot readily be done, construe it;*
  - (3) *Identify what, if any, differences exist between the matter cited as forming part of the “state of the art” and the inventive concept of the claim or the claims as construed;*
  - (4) *Viewed without any knowledge of the alleged invention as claimed, do those differences constitute steps which would have been obvious to the person skilled in the art or do they require any degree of invention?*
- 19 The Supreme Court in *EPAl* stated, at paragraph 106, that it is open to the UKIPO and to the UK courts to adopt any appropriate method of identifying the technical character of the invention, viewed as a whole, as the necessary first part of carrying out the intermediate step. The judgment goes on to say that an example of an

<sup>4</sup> *Pozzoli SPA v BDMO SA* [2007] EWCA Civ 588

appropriate method might in a particular case be to identify the alleged “inventive concept” of the claim, as explained in *Pozzoli*. In other cases, it would be appropriate to focus on whether differences between the cited prior art and the inventive concept contribute to the technical character of the invention as a whole (taking care not to consider those differences in isolation). I believe that examiners have at least the following options open to them as to when to identify features which contribute to the technical character of the invention:

- a) Assess whether each feature contributes to the technical character of the invention as a whole for all claim features when considering the inventive concept of the claim;
- b) Make an initial, brief, assessment of whether each feature contributes to the technical character of the invention as part of assessing the inventive concept of the claim. Then perform a detailed analysis of whether features which constitute differences between the matter cited as forming part of the “state of the art” and the inventive concept contribute to the technical character of the invention as a whole.

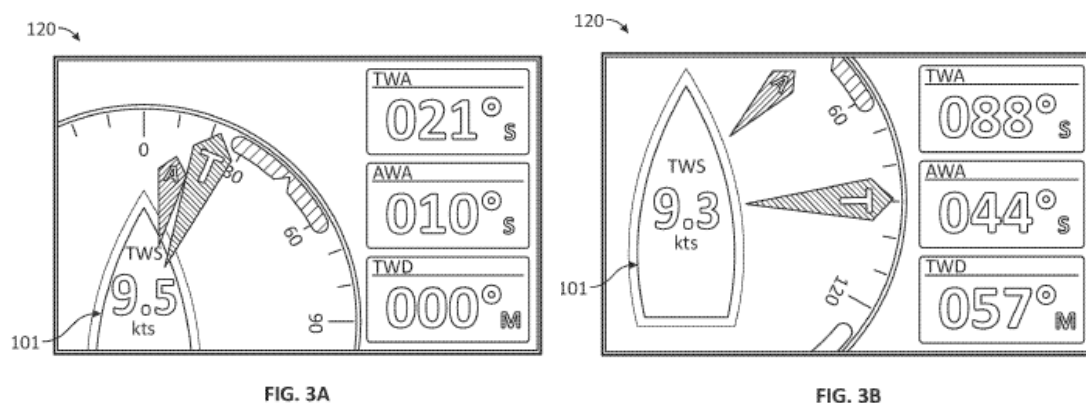
20 The Supreme Court in *EPAI* stated in paragraph 64 that there is nothing wrong with step 1 in the *Aerotel* approach (properly construe the claim) before concluding that steps 2 to 4 cannot be maintained. Taking all this into account I think that the approach now has the following steps:

- i) Properly construe the claim;
- ii) Determine whether the claim involves the use of any hardware;
- iii) Perform the intermediate step: determine whether a feature contributes to the technical character of the invention as a whole and filter out features which do not contribute to the technical character of the invention viewed as a whole; and
- iv) Consider novelty and inventive step based on matter cited as forming part of the “state of the art”:
  - If there are no differences the claim lacks novelty.
  - If all differences have been filtered out at step (iii) then the subject-matter of the claim lacks inventive step.
  - If one or more difference(s) contribute to the technical character of the invention, then ask whether those differences constitute steps which would have been obvious to the person skilled in the art or do they require any degree of invention?

- 21 The attorney and examiner have also discussed the Technical Board of Appeal decisions T 0651/12<sup>5</sup>, T 0505/18<sup>6</sup> and T1802/13<sup>7</sup> during prosecution of the application. There have been further references to *Lantana*<sup>8</sup>, *Gemstar*<sup>9</sup>, and *Mitac*<sup>10</sup>.

### The invention

- 22 Marine navigation typically uses a variety of instruments to measure relevant variables such as location, wind speed, etc. The measured values are often presented to the user in the form of dials and gauges. These may be virtual, where the display is rendered by a computer. Traditional dial gauges waste a lot of the display area, leading to the crucial area of a static dial being much smaller than necessary. This may cause difficulties in a user focussing on necessary information, particularly when reading the dial from a distance.
- 23 The present invention relates to a virtual dial gauge where a segment of the total range of values is rendered on a user display 120, so that a first range of values (including the measured value) is displayed (figure 3A) but other segments of the dial's total range are not shown. When the measured value meets a switching threshold condition the dial pans to this second segment, where other segments (including some of the first range) are excluded from view (figure 3B). This is said to help maximise visibility of the relevant portion of the virtual gauge.



- 24 The switch from the first segment to the second segment is subject to a programmed delay (a hysteresis) to maintain the stability of the user interface (which may help prevent flickering of the display when the measured value lies on the border between the two ranges).
- 25 The current claim set, as amended on 11 March 2026, comprises two independent claims 1 and 9. Claims 1-8 define a method of dynamically updating navigation information on a user display of a vehicle, while claim 9 defines a vehicle which comprises that user display. Claims 1 and 9 relate to the same inventive concept so it is only necessary to consider claim 1. Claim 1 reads:

<sup>5</sup> T 0651/12 (XANAVI INFORMATICS)

<sup>6</sup> T 0505/18 (Advertising-based mobile device navigation features/BLACKBERRY)

<sup>7</sup> T 1802/13 (Brain stimulation/CLEVELAND)

<sup>8</sup> *Lantana Ltd v Comptroller General of Patents, Designs and Trade Marks* [2013] EWHC 2673 (Pat)

<sup>9</sup> *Gemstar-TV Guide International Inc v Virgin Media Limited* [2010] RPC 10

<sup>10</sup> *Mitac International Corporation* (BL O/349/12)

*1.A method of dynamically updating navigation information on a user display of a vehicle, comprising:*

*a logic device of the vehicle causing the user display to render a virtual dial gauge comprising a plurality of segments, wherein each segment is associated with a corresponding range of values for a monitored condition based on information detected by one or more sensors of the vehicle in response to environmental conditions associated with the vehicle;*

*the logic device determining, based on information received from the one or more sensors, a first value within a first range of the range of values;*

*the logic device causing the user display to render the first value with a first segment of the segments of the virtual dial gauge to include a center of the virtual dial gauge, wherein the first segment is associated with the first range and, while rendering the first segment, excluding from the user display at least a portion of a second segment of the segments of the virtual dial gauge associated with a second range of the range of values;*

*the logic device determining, based on information received from the one or more sensors, a second value associated with the second range of values;*

*the logic device determining that the second value satisfies a switching threshold condition; and*

*in response to determining that the second value satisfies the switching threshold condition and with a delay for a predetermined amount of time utilizing a hysteresis, the logic device causing the user display to pan from the first segment to the second segment and to render the second value with the second segment of the virtual dial gauge to include the center of the virtual dial gauge while excluding from the user display at least a portion of the first segment of the virtual dial gauge;*

*wherein the rendering of the first value, the panning, and the rendering of the second value operate together to maintain on the user display one of the first or second segments comprising a current value of the monitored condition and the center of the virtual dial gauge within the rendering.*

## **Assessment**

### Step (i): Claim construction

- 26 The examiner has not commented on this in their pre-hearing report (they did in their earlier reports) as they believe the claims are now clear and I agree. However, it is useful to comment on the construction of some features of the claim.
- 27 The description defines that the “logic device” of the claim may be adapted to execute instructions, such as software instructions, implementing any of the various processes and/or methods described. The phrase logic device thus encompasses a computer with computer programs to implement the various processes.

- 28 The term hysteresis is not defined in the application. It refers to the phenomenon where a system's output depends not only on its current input but also on its past history. In the context of claim 1 it refers to delaying the transition between the display of the first and second segments when the current value exceeds the switching threshold condition to maintain the stability of the user interface.
- 29 Several of the arguments centre around the invention presenting the user with a zoomed or enlarged view of the segment of interest. This is supported by the description, but this is not required by claim 1. All that is required is while rendering one segment at least a portion of another segment is excluded from the user display.

Step (ii): Any hardware test

- 30 The examiner finds that claim 1 possesses the technical character required to pass the 'any hardware' test and I agree. Several technical features are present including a vehicle, a display, a logic device and one or more sensors.

Step (iii): Intermediate step

- 31 The next step is to consider which features of the claims interact with the technical character of the invention for solving a technical problem and therefore contribute to that technical character. If they don't then they are to be ignored in assessing novelty and inventive step.

Arguments

- 32 In their final exam report of 26 March 2026 (which follows the *EPAI* approach), the examiner has struck out many features of claim 1 to illustrate those they believe are non-technical and do not contribute to the technical character of the invention as a whole in accordance with the intermediate step as follows:

*1. A method of dynamically updating navigation information on a user display of a vehicle, comprising:*

*a logic device of the vehicle causing the user display to render a virtual dial gauge comprising a plurality of segments, wherein each segment is associated with a corresponding range of values for a monitored condition based on information detected by one or more sensors of the vehicle in response to environmental conditions associated with the vehicle;*

*the logic device determining, based on information received from the one or more sensors, a first value within a first range of [a] range of values;*

*the logic device causing the user display to render the first value with a first segment of the segments of the virtual dial gauge to include a center of the virtual dial gauge, wherein the first segment is associated with the first range and, while rendering the first segment, excluding from the user display at least a portion of a second segment of the segments of the virtual dial gauge associated with a second range of the range of values;*

*the logic device determining, based on information received from the one or more sensors, a second value associated with [a] second range of values;*

~~the logic device determining that the second value satisfies a switching threshold condition; and~~

~~in response to determining that the second value satisfies the switching threshold condition and with a delay for a predetermined amount of time utilizing a hysteresis, the logic device causing the user display to pan from the first segment to the second segment and to render the second value with the second segment of the virtual dial gauge to include the center of the virtual dial gauge while excluding from the user display at least a portion of the first segment of the virtual dial gauge;~~

~~wherein the rendering of the first value, the panning, and the rendering of the second value operate together to maintain on the user display one of the first or second segments comprising a current value of the monitored condition and the center of the virtual dial gauge within the rendering.~~

- 33 They go on to explain that they consider the technical character of the invention specified in claim 1 to lie in a computer-implemented method of dynamically updating navigation information on a user display of a vehicle based on information detected by a vehicle sensor in response to environmental conditions associated with the vehicle. They say that the features identified in the previous paragraph do not contribute to this technical character because they relate to the presentation of information as such - i.e. steps of a method of expressing information that are characterised solely by the content of that information. More specifically, they specify how the logic device determines which contextual information (i.e. virtual dial segment) to display with the rendered measured value.
- 34 The attorney argues in their letter of 14 April 2026, that many of these features contribute to the technical character of the invention and should not be ignored when assessing inventive step.
- 35 The attorney states that the close-up view (zoom) keeps the relevant portion of the dial gauge visible to the user, thus optimizing the use of an allocated, limited, display area improving user viewability and the vehicle's operation. They contrast the invention with conventional navigation systems that statically display a dial gauge wasting display area to the detriment of a specific gauge portion of interest to the user, that is rendered smaller than necessary.
- 36 They go on to say that changing the displaying of the dial gauge in response to received values of the monitored condition, is technical in character in view of controlling the display area (and therefore extends beyond a presentation of information as such). The attorney submits that this provides an objective improvement to enable the user to make informed decisions to control navigation, thus ultimately improving operability of the vehicle and safety of the user.
- 37 With reference to EPO decisions T0651/12 and T0505/18 they submit that a maximised view of the gauge segment including the measured value of interest supports the user in better controlling the navigation of the vehicle improving safety of operation of the vehicle. This is said to reduce user's distraction because other gauge segments are not displayed concurrently with the zoomed gauge segment of interest which also adds to the safety of the operation of the vehicle.

- 38 T0651/12 established that map-display features which help a user navigate and which improve computer processing possess technical character. The decision states that processing and storing height data and positional coordinates is technical and the processing of height data and positional coordinates by the technical features of claim 1 clearly involved an interaction which resulted in altering the technical character of the apparatus. The technical problem was said to lie in how to allow roads whose altitudes vary to be displayed more efficiently in a bird's eye view map and that the claimed apparatus provided a technical advantage in this respect.
- 39 T0505/18 relates to a navigation system that displays both route information and adverts but stopped displaying adverts when the vehicle was moving and within a specified distance of an intersection to reduce distraction when the driver was entering a more demanding driving situation. The Board accepted that stopping adverts reduces distractions to the driver and that this credibly contributes to safer vehicle operation and therefore treated this feature as contributing to a technical effect.
- 40 The attorney also proposes that a second technical aspect can be found in the hysteresis delay which is used to control the switching between displaying segments in view preventing unwanted frequent display switching that might occur when the value of a monitored condition bounces close to a switching threshold. They say that this ensures that only a stabilized change in the value of a monitored condition can trigger the switching to a new displayed segment thus preventing unreliable user experience, attention, and sub-optimal use of the computational resources. They submit that the discussed features of claim 1 should not be disregarded when assessing inventive step.
- 41 In their pre-hearing report of 27 April 2026, the examiner disputes each of the attorney's arguments saying that displaying some dial sectors and not others is no more than selecting which information to present. They go on to say that the EPO decisions are not persuasive identifying differences between the inventions in those cases and the present invention. They also refer to another EPO decision, T1802/13, as supporting their position that there is no technical effect from graphical user interfaces defined by the layout or content of the information presented, wherein any benefit lies in greater ease of viewing or reduced cognitive burden for the user in interpreting the information, even where the information relates to measured values. Lastly, they disagree about any savings in computing resources from switching display less and state that the benefit of avoiding rapid fluctuations of the value or segments shown in the display would be purely visual.
- 42 T1802/13 concerns a computer system for assisting deep brain stimulation (DBS) surgery. The system displayed various forms of patient-specific data, including monitored data and predicted stimulation data derived from a model of brain tissue, superimposed on an atlas of brain tissue to help a surgeon identify appropriate stimulation targets during neurosurgical procedures.

### Analysis

- 43 I shall now analyse each feature of claim 1 with a view to performing the intermediate step. For ease of analysis, I will label the features of the claim:

*1.A method of dynamically updating navigation information on a user display of a vehicle, comprising:*

- a) a logic device of the vehicle causing the user display to render a virtual dial gauge*
- b) comprising a plurality of segments, wherein each segment is associated with a corresponding range of values for a monitored condition*
- c) based on information detected by one or more sensors of the vehicle in response to environmental conditions associated with the vehicle;*
- d) the logic device determining, based on information received from the one or more sensors, a first value within a first range of the range of values;*
- e) the logic device causing the user display to render the first value with a first segment of the segments of the virtual dial gauge*
- f) to include a center of the virtual dial gauge,*
- g) wherein the first segment is associated with the first range and,*
- h) while rendering the first segment, excluding from the user display at least a portion of a second segment of the segments of the virtual dial gauge associated with a second range of the range of values;*
- i) the logic device determining, based on information received from the one or more sensors, a second value associated with the second range of values;*
- j) the logic device determining that the second value satisfies a switching threshold condition; and*
- k) in response to determining that the second value satisfies the switching threshold condition and with a delay for a predetermined amount of time utilizing a hysteresis, the logic device causing the user display to*
- l) pan from the first segment to the second segment and*
- m) to render the second value with the second segment of the virtual dial gauge*
- n) to include the center of the virtual dial gauge while*
- o) excluding from the user display at least a portion of the first segment of the virtual dial gauge;*
- p) wherein the rendering of the first value, the panning, and the rendering of the second value operate together to maintain on the user display one of the first or second segments comprising a current value of the monitored condition and the center of the virtual dial gauge within the rendering.*

- 44 There is a direct link between the display dynamically updating navigation information including a current value of a monitored condition, and the information received from the one or more sensors upon which that current value is based. The sensed data is also linked to the comparison of the current value to a threshold and then taking further action if the threshold is met. Features (a), (c), (d), (e), (i), (j), and (m) are directly or indirectly related to that sensed data and that is used for the technical purpose of displaying navigation information. As suggested by paragraph 85 of G1/19, this goes beyond abstract data input/output or internal data processing and thus each of these features, at least in part (see below), contribute to the technical character of the invention as a whole.
- 45 According to features (b), (e), (g), (h), (m), and (o) the virtual dial gauge is made up of a plurality of segments, and these are displayed (features (e) and (m)) or excluded (features (h) and (o)) according to the current value of the monitored condition. The plurality of segments facilitates the display of a smaller range of values, including the current (sensed) value, larger than it could otherwise be on the display if the whole dial is present. However, the claims are not limited in this manner and cover the display of a segment at a scale that would also allow for the remaining segments to be displayed (i.e. excluding segments but not enlarging the segment of interest). This renders some of the attorney's arguments moot, but amendment is possible to make this feature clear if that is the applicant's intention. Determining whether the virtual dial gauge comprising a plurality of segments with one being displayed and at least a portion of another segment is excluded contributes to the technical character of the invention or not, is not straightforward as illustrated by different outcomes in the three EPO TBA decisions referenced. Given that at least some of these features are linked to the current value derived from sensed data, I will proceed on the basis that these features should not be ignored and return to this point later.
- 46 Feature (k) provides for a delay for a predetermined amount of time utilizing a hysteresis. This will prevent the virtual gauge from flickering between two segments which would make it difficult for the user to read the gauge effectively, I believe this also contributes to the technical nature of the invention. I find the reasoning of T0505/18 persuasive that reducing distraction for a driver/operator can be technical and that it is in this case.
- 47 Feature (l) defines the gauge 'panning' from the first segment to the second segment. No arguments have been advanced as to whether the panning transition provides anything more than a visually appealing transition which is not a technical consideration or addressing any technical problem. On balance, I do not consider the gauge 'panning' to contribute to, or interact with, the technical character of the invention. It concerns the presentation of information as such.
- 48 Features (f) and (n) define the inclusion of the 'center' of the virtual dial gauge in both the first and second segments. Again, no arguments have been advanced about this feature. On balance, it concerns a non-technical detail of how to present the virtual dial gauge. This feature also does not contribute to the technical character of the invention as a whole, and relates to the presentation of information as such.
- 49 Feature (p) ties together earlier features. As such it includes a mix of features that contribute to the technical character and those that do not as discussed above.

- 50 As a result of applying the intermediate step to claim 1 I find that features (f), (l), and (n) do not contribute to the technical character of the invention as a whole. Striking through these features of claim 1 to illustrate which features are non-technical and do not contribute to the technical character of the invention gives:

*1.A method of dynamically updating navigation information on a user display of a vehicle, comprising:*

*a logic device of the vehicle causing the user display to render a virtual dial gauge comprising a plurality of segments, wherein each segment is associated with a corresponding range of values for a monitored condition based on information detected by one or more sensors of the vehicle in response to environmental conditions associated with the vehicle;*

*the logic device determining, based on information received from the one or more sensors, a first value within a first range of [a] range of values;*

*the logic device causing the user display to render the first value ~~with a first segment of the segments of the virtual dial gauge to include a center of the virtual dial gauge~~, wherein the first segment is associated with the first range and, while rendering the first segment, excluding from the user display at least a portion of a second segment of the segments of the virtual dial gauge associated with a second range of the range of values;*

*the logic device determining, based on information received from the one or more sensors, a second value associated with [a] second range of values;*

*the logic device determining that the second value satisfies a switching threshold condition; and*

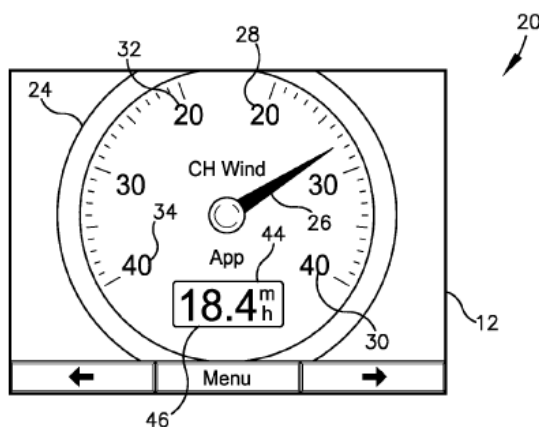
*in response to determining that the second value satisfies the switching threshold condition and with a delay for a predetermined amount of time utilizing a hysteresis, the logic device causing the user display to ~~pan~~ [switch] from the first segment to the second segment and to render the second value ~~with the second segment of the virtual dial gauge to include the center of the virtual dial gauge~~ while excluding from the user display at least a portion of the first segment of the virtual dial gauge;*

*wherein the rendering of the first value, ~~the panning~~, and the rendering of the second value operate together to maintain on the user display one of the first or second segments comprising a current value of the monitored condition ~~and the center of the virtual dial gauge within the rendering~~.*

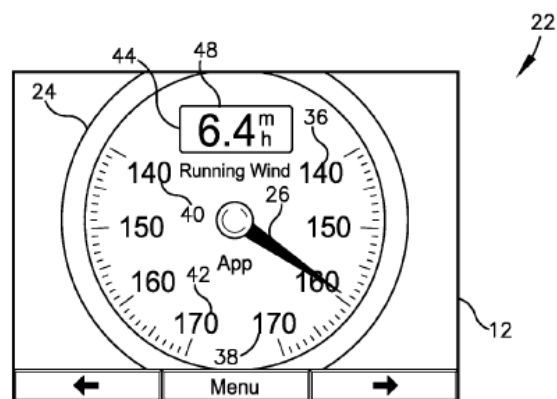
#### Step (iv): Inventive step

- 51 The examiner, in their report of 26 March 2026, having filtered out many of the features as discussed above, concludes each of JP 2010-266288, US 2016/364838 and US 2010/026688 (which are said to be examples) disclose all the remaining features of claim 1 thereby rendering the claim obvious. Their analysis does not explicitly refer to *Pozzoli* or set out their application of its steps. Notably, there has been no discussion of the skilled person or their common general knowledge.

- 52 In view of my findings above about which features contribute to the technical character of the invention I could stop at this point and simply decide that the case should be sent back to the examiner to apply the *Pozzoli* approach to determine whether the invention is obvious. A full assessment has not yet been made. It is not appropriate for me to apply the *Pozzoli* approach as, were I to conclude that the invention is obvious, the applicant would not have had an opportunity to respond to my conclusion. However, I am hesitant to say nothing given the late stage of this application as this might cause further delay. I therefore make the following comments to assist the examiner in applying the *Pozzoli* approach.
- 53 In their letter of 14 April 2026, the attorney submits that none of the cited prior art documents discloses or suggests performing a panning operation from a first segment (including a first sensed value) to a second segment (including a second sensed value) of a displayed virtual gauge (wherein while the second segment is displayed, at least a portion of the first segment is excluded). I find above that panning does not contribute to the technical character of the invention as a whole and therefore this difference is to be filtered out by the intermediate step before considering whether the claims are obvious.
- 54 They go on to say that none of the cited prior art documents discloses or suggests performing the panning operation to the second segment in response to determining that the second value satisfies a switching threshold condition with a delay for a predetermined amount of time utilizing a hysteresis.
- 55 I consider document US 2010/0026688 to be the closest prior art identified. This document discloses a reconfigurable (virtual) dial gauge that displays the wind angle and wind speed in a boat based on information from one or more sensors (16; fig 2), and thus aids navigation. The gauge will switch from a first visual representation 20 (figure 3) of the wind angle gauge to a second representation 22 (figure 4) if a first threshold angle value is met, and back to the first representation if a second threshold angle value is met (see paragraph [0043]). The centre of the gauge is included in both representations. The first representation has a range of values with different minimum and maximum to those of the second representation, and each representation excludes parts of the other range from view. Embodiments envisaged in paragraph 0047 include more than two visual representations and that wind angle sets may be overlapping.



*Fig. 3*



*Fig. 4*

- 56 There is a range of wind angles between the first maximum angle value (reference 30; value 40) of the first representation and the second minimum angle value (reference 36; value 140) of the second representation (namely values 40-140). Tables 1 and 2 between paragraphs 0044 and 0046 describe the behaviour of the needle 26, which representation is used and give examples of the first and second threshold. The example first threshold is the second minimum angle value (namely 140 degrees), and the example second threshold is the first maximum angle value (namely 40 degrees). When wind angle is between the first maximum angle value and the second minimum angle value the needle “holds at the first maximum” or “holds at second minimum” depending on which way the wind direction is changing. This provides a delay between switching representation which could be described as hysteresis.
- 57 Returning to the question in paragraph 45 above, it is now clear that the question of whether the virtual dial gauge comprising a plurality of segments with one being displayed and at least a portion of another excluded contributes to the technical character of the invention will not be decisive in the overall assessment of whether claim 1 involves an inventive step as this is shown in US 2010/0026688.
- 58 The disclosure differs from the technical character of the invention in that the delay is not for “a predetermined amount of time”. The needle holding at the maximum or minimum until the relevant threshold is passed will address the same issue. The question is whether the skilled person would consider a predetermined time delay obvious when applying the teaching of US 2010/0026688, particularly when switching between representations of other wind angle sets as in paragraph 0047.
- 59 Panning from the first segment to the second segment (feature (I)) is also not shown in US 2010/0026688 and may thus be a further difference. It would be prudent for the examiner to also consider whether panning is obvious from this document in case I have erred in my assessment above that this does not contribute to the technical character of the invention as a whole.

## **Conclusion**

- 60 I have applied the approach set out in the judgment of the Supreme Court in *EPAI* to claim 1 considering G1/19, Duns principles A-F and the intermediate step. I conclude that several of the features, identified by the examiner as not contributing to the technical character of the invention as a whole, do contribute. As a result of ignoring those features in the consideration of inventive step, this has not been fully considered. I remit the application back to the examiner to consider whether the difference between the inventive concept and US 2010/0026688 (and any other documents they are aware of) is obvious.

## **Appeal**

- 61 Any appeal must be lodged within 28 days after the date of this decision.

**NIKKI DOWELL**

Patent Examination Group Head