

Examiners' Report – Paper C 2023

Purpose and extent of the examiners' report

The purpose of the examiners' report is to enable candidates to prepare for future examinations (Regulation on the European qualifying examination for professional representatives (REE), Article 6 (6)).

The examination of 2023 was the third exam held online and was split into two parts. Technical aspects of the online exam are not part of this report.

1. Introduction

This year's paper involved discussion of novelty, inventive step and added subject-matter, as well as considerations regarding claims comprising both technical and non-technical features (Guidelines G-VII, 5.4). Attacks based on insufficiency of disclosure (Article 100(b) EPC) are not accepted in Part C of the exam (IPREE, Rule 25(5)). Each part of the examination required dealing with the documents at hand within the allotted time.

In part 1 of the examination, the client's letter gives information regarding the available parts of Annex 1 (A1, i.e. the patent to be opposed), information with respect to the priority right and prior art which may be taken into account, Annexes 2 to 5 and 7 (A2 – A5, and A7). The client's letter further includes some information about Annex 5. Only claims 1 to 3 of A1 are available. Independent product claim 1 covers a road racing pedal. Dependent claim 2 further defines the pedal spindle and the sensor of claim 1. Dependent claim 3 concerns a pedal system comprising a road racing pedal according to claim 2.

In part 2 of the examination, the client's letter gives information regarding the further available parts of A1. The prior art for part 2 is Annexes 2 to 7 (A2 -A7). Independent product claim 4 relates to a bicycle with a pedalling efficiency improving system. Claim 5 further defines the material of the pedal body of the clipless pedals of claim 4. Claim 6 defines restrictions to some features of claim 4. Finally, claim 7 relates to a bicycle computer for the pedalling efficiency improving system of claim 4.

2. General comments

All the information necessary to oppose the patent is found in the examination documents, which include A1 and the client's letters. Candidates shall not use any special knowledge they may have of the technical field of the invention (Implementing provisions to the Regulation on the European qualifying examination for professional representatives, Rule 22 (3)).

The examination documents comprise definitions of technical nature related to claim features, aspects of the related technical effects and objective technical problems as well as motivations and hints. Accordingly, marks were awarded for use of this information and argumentation based on it.

In candidate's answers, the use of information requires citation of the specific reference in the relevant document (e.g. paragraph, page and line(s), claim, figure, as appropriate). If prior art uses terminology different to the feature in a claim, a full reasoning requires an explanation why the meaning is the same, based on the information provided in the Annexes.

For example, in this year's paper the terms "pedal spindle" of claim 1 and "pedal axle" of A5 had the same meaning in the context of the paper. This could be argued using the statement of A4[0002]: "This type of pedal generally comprises an axle mounted on the crank of the bicycle, a pedal body rotating around the pedal axle or pedal spindle, and a cleat engagement mechanism placed on the pedal body".

For inventive step attacks the candidates' answers were given marks within the structure of the problem-solution approach (Guidelines G-VII.5).

The problem-solution approach requires identification of the closest prior art for each inventive step attack. A substantiated argumentation of the choice includes a reason why a document is chosen as the closest prior art. This may, where appropriate, be supplemented by arguments about why it is a better starting point than an alternative prior art.

For example, in this year's paper a possible motivation for choosing the pedal of A4 as *closest prior art* against claim 2 was that it was the only road racing pedal with a pedal body having a pedal spindle within the pedal cavity.

The argumentation against inventive step should clearly identify the distinguishing features of the claim compared to the closest prior art. The *technical effect* associated to this distinguishing feature is an advantage which has to be identified in the patent to be opposed and the appropriate basis must be cited.

The *objective technical problem* to be solved has to be established based on the technical effect. However, the objective technical problem must not contain pointers towards the claimed solution, so, typically, the objective technical problem and the technical effect are not identical.

A comprehensive reasoning for lack of inventive step includes a substantiated argumentation *why another document would be considered*, e.g. by pointing to a specific part of the other document that is related to the same purpose or the same objective technical problem.

For example, in this year's paper, the argumentation against inventive step of claim 2 involves the consultation of A2. A substantiated argument would be that the skilled person would consider A2 as it relates to sensors in bicycle pedals and specifically to the identification of dead spots in the pedal stroke (A2, paragraph [0002]).

The reasoning for lack of inventive step should also include a substantiated argumentation as to "*how and why*" one arrives at the subject-matter of a claim when combining the teaching of prior art documents. A generic statement such as "by combining A4 and A2 one arrives at the subject-matter of claim 2" does not include an explanation of "*how and why*" the modification would be made.

Alternatively, to the attacks set out in the "possible solution", marks were awarded depending on the argumentation provided, in particular for motivating how and why certain modifications would be made. Also, if an attack for an antecedent claim was based on the wrong documents, the continuation of that attack in a dependent claim was considered dependent upon the merits.

Marks for attacks on claims 1 to 3 were only awarded if the respective attack was made in part 1 of the examination.

3. Notice of opposition

For the opposition to be admissible it is required that the patent to be opposed as well as the opponent are identified. Payment of the opposition fee has to be indicated. It should be borne in mind that the intended opponent is the company and not the person signing the client's letter.

All relevant information, a statement of the extent to which the European patent is opposed, opposition grounds, evidence, facts and arguments have to be in the answers. Text submitted as part of a candidate's answer has to be clearly related to a line of argumentation to be awarded marks (this is usually not the case for feature tables or copied claim text pasted arbitrarily with a few features identified).

4. Effective dates of the claims and prior art (10 marks)

For part 1 of the exam the information provided in the first letter of the client was to be used to establish the effective dates of patent claims 1 to 3 as well as the status of A2 to A5 and A7 as prior art with respect to these claims.

For part 2 of the exam the information provided in the second letter from the client was to be used to establish the effective dates of claims 4 to 7 as well as the status of A2 to A7 as prior art with respect to these claims.

An analysis regarding the lack of transfer of priority right and therefore the resulting invalid priority right was expected in view of the first letter from the client.

This year's exam cited three patent documents as prior art (A3, A4 and A7). The remaining prior art required an analysis of what was made public in due time.

A2 was an article published in a cycling magazine after the effective date of the patent. However, A2 disclosed a public prior use taking place before the filing date of A1 at Eurobike 2017. Guidelines G-IV, 7.2, define how to substantiate prior uses.

A5 was a print out of a social media page, downloaded and printed on 8 February 2023, i.e. after the effective date, but with a publication date of 3 September 2019, one day before the effective date of A1. Guidelines G-IV, 7.5, provide information on how to deal with internet disclosures. The prior use mentioned in A5 took place on the effective date and can therefore not be considered.

A6, finally, was a scientific paper, published on 3 January 2019 and thus before the effective date of A1.

For neither A2, A5 nor A6 was it necessary to offer of a witness or an affidavit in view of the information already provided in the documents.

5.1 Claim 1 (11 marks)

A5 shows all features of claim 1 so a novelty attack based on this document was expected and considered sufficient. The feature of claim 1, that a sensor is for detecting dead spots in the pedal stroke, requires an analysis why the pedal angle measurement sensor of A5 is suitable for detecting dead spots, thus Guidelines F-IV, 4.13.1, apply. Document A4 does neither explicitly nor implicitly disclose angle measurement sensors and therefore sensors for detecting dead spots in the pedal stroke. There is no disclosure throughout the paper that all strain gauges can measure dead spots. Novelty or inventive step attacks for claim 1, starting from A4, were considered in claim 2.

5.2 Claim 2 (18 marks)

No available prior art discloses all features of claim 2, therefore an argumentation against inventive step was expected. Claim 2 defines that the pedal spindle is placed within the pedal cavity and the sensor comprises a pedal spindle drive. A full reasoning required argumentation why A4 is chosen as the closest prior art against claim 2. A2 cannot be considered to be the closest prior art as it discloses a stationary bicycle pedal which is explicitly disclosed as being not suitable for on-road usage and comprises an unsealed open cylinder.

5.3 Claim 3 (15 marks)

Claim 3 refers to a pedal system comprising a road racing pedal according to claim 2 and further comprising a bicycle computer. A4 discloses a pedal system with a pedal and additionally a bicycle computer and therefore is considered to be the closest prior art. A2 cannot be considered to be the closest prior art as it discloses a stationary bicycle pedal and a PC workstation. A full reasoning also requires an argumentation

substantiating the justification of the partial problems approach allowing the combination with features coming from both A2 and A3.

5.4 Claim 4 (9 marks)

A novelty attack using A7 was expected as A7 is the only document disclosing all the features of claim 4. A7 is the only document disclosing a bicycle with a chain drive.

5.5 Claim 5 (17 marks)

Claim 5 is directed to the bicycle of claim 4, wherein the clipless pedals comprise a pedal body made of CFRP. No document discloses all features of claim 5, therefore an argumentation against inventive step was expected. A7 is the best starting point for convincingly arguing lack of inventive step of claim 5.

Candidates were expected to argue why the specific ranges of filaments per tow, of tensile elastic modulus as well as the specific type of resin of A6 would be combined with each other.

Candidates were expected to fully analyse why the ranges or specific values of certain properties disclosed in the prior art would fall within/overlap with the ranges of said properties in the claim.

5.6 Claim 6 (6 marks)

Claim 6 was added during examination. It was expected to conclude that newly filed claim 6 comprised features that were isolated from their context. There was no basis for this isolation in the application documents as filed which contravenes the requirements of Article 123(2) EPC.

5.1 Claim 7 (14 marks)

Claim 7 was directed to a “mixed type invention” comprising technical and non-technical features.

Candidates were expected to apply the problem solution approach (Guidelines G-VII, 5.4). Technical and non-technical features were to be separated to permit a proper argumentation with respect to lack of inventive step of the subject-matter of the claim (COMVIK approach). Features not making a technical contribution, even if they are novel, cannot support the presence of an inventive step. Therefore an argumentation against inventive step was expected. The bicycle computer of claim 7 only needs to be suitable for the pedalling efficiency system of claim 4. Therefore, candidates were expected to justify why the bicycle computer of claim 7 does only need to be able to communicate with a sensor. A3 is considered to be the closest prior art and discloses a bicycle computer suitable for the pedalling efficiency system of claim 4. A7 does not disclose the display of any type of efficiency information in percentage form.

As technology is evolving quickly, this type of claim is becoming more frequent in practice.

Possible Solution – Paper C 2023

General (for part 1 of the exam)

Opposition is filed in the name of Moga Kiyata B.V. against Annex 1, i.e. EP 3 620 508 B1 (A1). The opposition fee has been paid. The patent is opposed at least on the grounds of Article 100(a) EPC for lack of novelty and lack of inventive step. The patent is opposed in its entirety (claims 1 to 3 of part 1 of the exam).

Effective dates

Claims 1 to 3 were part of the priority document and of the application as originally filed. The priority application was filed by two applicants (Coppi S.r.l and Industrias Trueba S.L.) whereas the patent application was filed by only one of them (Industrias Trueba S.L.). No transfer of priority right has taken place. Therefore, as not “all applicants” of the priority application are applicants of the subsequent application, priority has not been validly claimed (Guidelines A-III, 6.1) and the effective date of claims 1 to 3 is 04.09.2019.

Prior art

A3, A4 and A7 were published before the priority date and the filing date and are therefore Article 54(2) EPC prior art to claims 1 to 3.

A2 was published on October 2019, after the filing date of A1, but discloses a prior use before the filing date of A1. The pedal disclosed in A2 was shown at Eurobike 2017, thus earlier than the priority date of A1. According to Guidelines G-IV, 7.2, the following has to be determined in order to substantiate a prior use: the date on which the prior use occurred (September 2017), what has been used (the pedal and the posters) and all the circumstances relating to the use (shown at Eurobike fair 2017, Eurobike fair is held annually in the first week of September and is open to the general public). Thus, the product exhibition at Eurobike 2017 constitutes a public prior use of the product described in A2. A2 discloses the posters that were shown at Eurobike 2017. Therefore,

the product and its specifications, as shown in A2, are prior art according to Article 54(2) EPC to claims 1 to 3.

A5 is a social media post published on 03.09.2019, before the filing date of A1. Internet disclosures containing an explicit publication date are generally considered reliable and the dates are accepted at face value (Guidelines G-IV, 7.5.2). The date stamps of the Facebook post and of the comments are thus considered to be a reliable publication date (Guidelines G-IV, 7.5.3.3). A5 is prior art according to Article 54(2) EPC to claims 1 to 3.

Claim 1 – Lack of novelty (A5)

A5 discloses a road racing pedal (Marvin products comment below the post with the same date stamp, “Our pedals are designed for road racing cycling”), comprising:

- a pedal body ([0003], “pedal housing”, a pedal housing is a pedal body, see A4[0008])
- with a pedal cavity ([0003], “pedal axle chamber 502”, a pedal chamber is a pedal cavity, see A4[0005])
- a pedal spindle ([0004], “pedal axle”, a pedal axle is a pedal spindle, see A4[0002])
- [0004] discloses that the pedal axle rotates inside the bearing 504 placed in the crank arm 505, at the attachment hole. Thus, the pedal spindle attaches the pedal body to the bicycle crank arm.
- and a sensor ([0004], “pedal angle measurement sensor 506”)
- for detecting dead spots in the pedal stroke (the pedal angle measurement sensor of A5 is suitable for [Guidelines F-IV, 4.13.1] detecting dead spots in the pedal stroke as, according to A1[0006], with a pedal angle sensor, the position of the heel during the pedal rotation can be identified and thus the presence of dead spots).

Therefore, the subject-matter of claim 1 lacks novelty (Article 54 (1), (2) EPC) in view of A5.

Claim 2 – Lack of inventive step (A4+A2)

A4 is the closest prior art as it is the only disclosure of a road racing pedal having a pedal spindle placed within the pedal cavity.

A4 discloses:

- a road racing pedal ([0005], “a clipless pedal for on-road racing” which according to A1[0010] is a road racing pedal)
- comprising a pedal body ([0007], “pedal body 420”) with a pedal cavity ([0008], “interior cavity 480”)
- a pedal spindle ([0007], “pedal axle 410”, a pedal axle is a pedal spindle, see A4[0002])
- for attaching the pedal body to a bicycle crank arm ([0007], “pedal axle 410 adapted to be coupled to a crank arm”)
- wherein the spindle is placed within the pedal cavity ([0008], “interior cavity 480 around the pedal axle 410”).

A4 does not disclose:

- a sensor (107, 108) for detecting dead spots in the pedal stroke comprising a pedal spindle drive (106), with at least four electromagnets (108) placed on the pedal spindle (103) and at least four permanent magnets (107) placed on the pedal body (101) within the pedal cavity (102) and facing the electromagnets (108), the road bicycle further comprising a pedal controller (109) for actuating the spindle drive (106).

The technical effect achieved by these distinguishing features is defined in A1[0015] that: “by selectively applying current to the electromagnets, the rotation resistance of the pedal body 101 around the pedal spindle 103 can be adjusted”. Therefrom the objective technical problem can be derived as “signalling to the cyclist the crossing of certain positions around the pedal stroke” (A1[0016]).

The person skilled in the art would consider A2 as it relates to sensors in bicycle pedals and specifically to the identification of dead spots in the pedal stroke (A2, [0001]).

A2[0002] discloses an electric motor comprising 6 permanent magnets (201) spaced

evenly around the interior wall of an open cylinder (202). The cylinder forms a cavity (see figure of A2) encompassing the pedal shaft (203), which comprises another 6 electromagnets (204) evenly spaced. Thus, A2 discloses a pedal spindle drive. A2 further discloses that the electric motor provides angle position signals ([0002]), which according to A1[0006] makes the sensor suitable for detecting dead spots. A2[0002] further discloses a controller (207), placed on the crank arm (208) that switches the electric motor on and off. A2[0002] discloses that by switching on and off the electric motor, the rotation resistance is increased and thus the system signals to the cyclist the position of dead spots such that the cyclist internalizes their positions.

The skilled person is prompted to apply this teaching of A2 to that of A4, as A2 hints that the integration of this system into high-end clipless pedals for road racing is sought after (A2[0003]). Further A4[0009] discloses that the interior cavity 480 allows for the positioning of rotors and stators for battery charging. Thus, the person skilled in the art, would not hesitate to combine the teachings of these two documents and introduce the electric motor of A2 in the interior cavity 480 of A4 and attach the controller of A2 to the crank arm of A4. In this way, the person skilled in the art would arrive at the subject-matter of dependent claim 2.

Thus, the subject-matter of claim 2 lacks inventive step (Article 56 EPC) in view of the combination of A4 and A2.

Claim 3 – Lack of inventive step (A4+A2+A3)

A4 is the closest prior art as it is the only document disclosing a pedal system with a bicycle computer and a road racing pedal. See under analysis of claim 2 with respect to the features of claim 3 being disclosed by A4.

A4 further discloses a pedal system comprising a bicycle computer ([0011], “a pedal system or a cycling training system with a bicycle computer and the present pedal”).

A4 does not disclose:

- (a) the sensor of claim 2,
- (b) a bicycle computer adapted to receive pedal angle information and identify instantaneous dead spots in the pedal stroke and further showing the position of

said dead spots on a display of said computer.

For technical effect, objective technical problem and argumentation concerning distinguishing feature (a) see under claim 2.

The technical effect achieved by distinguishing feature (b) is defined in A1[0018] that: “The bicycle computer, receiving the sensed angle of the heel in real time, is able to calculate the heel-up heel-down movement of the cyclist with respect to the pedal position along the pedal stroke”. This solves the objective technical problem of identifying the position of the instantaneous dead spots in the pedal stroke (A1[0019]).

The technical effects of distinguishing features a) and b) are clearly different (adjusting rotation resistance versus calculating heel-up heel-down movement of the cyclist) and do not achieve a combined technical effect which is different from, e.g. greater than, the sum of the technical effects of the individual features. Therefore the two differences are not synergistically linked such that the partial problem approach applies (Guidelines G-VII 5.2 and 6).

The skilled person would consider A3 as it deals with dead spot identification (A3[0007]). A3[0007] discloses that the bicycle computer can analyse the data provided by the angle measuring sensors 322 and from this data provide an up-down movement profile of the pedal and thus the cyclist’s heel, throughout the pedal stroke. These dead spots are instantaneous dead spots (A1[0005]). The information, such as instantaneous dead spots, is displayed in real time to the cyclist A3[0007].

The skilled person would be motivated to use the bicycle computer of A3 as “the bicycle computer is not limited to the sensors disclosed in that application and will work with any other BOT compatible sensor” (A3[0008]). A4[0010] discloses that the posterior cavity of this document is prepared to fit a BOT enabled pedal controller and thus the computer of A3 is compatible with the pedal of A4.

Therefore, the subject-matter of claim 3 lacks inventive step (Article 56 EPC) in view of the combination of A4 with A2 and A3.

General (for part 2 of the exam)

The patent is opposed on the grounds of Article 100(a) EPC for lack of novelty and lack of inventive step and of Article 100(c) EPC for added subject matter. The patent is opposed in its entirety.

Effective Dates (for part 2 of the exam)

Claims 4, 5 and 7 were part of the priority document and of the application as filed. However, as the priority has not been validly claimed (see part 1 of the exam), the effective dates of these claims is 04.09.2019.

Prior art (for part 2 of the exam)

The status of the prior art documents A2, A3, A4, A5 and A7 is the same as discussed in the first part of the exam for claims 4 to 7 of A1.

A6 is a journal article published between the priority and the filing date. As the priority is not validly claimed, it is prior art according to Article 54(2) EPC to claims 4 to 7.

Claim 4 – Lack of novelty (A7)

A7 discloses a bicycle [0004] with a pedalling improving system ([0006], “integral pedalling improving system”). The system disclosed in A7 improves the pedalling efficiency as oval chainrings are another solution for improving pedalling efficiency (A1[0007]).

A7 further discloses:

- a chain drive ([0005], “oval chainring... sprockets for the rear wheel... a roller chain connecting the chainring and the sprockets” which according to A1[0002] corresponds to a chain drive)
- clipless pedals [0005]
- a sensor ([0005], “integrated power sensors”)
- and a bicycle computer ([0005], “a bicycle computer configured to display

orientation optimisation instructions”) in communication with said sensor ([0009], “These sensors measure total power output, left-right power balance and cadence. They communicate with the bicycle computer (not shown in the figures) using the BOT protocol technology”).

Therefore, the subject-matter of claim 4 lacks novelty (Article 54 (1), (2) EPC) in view of A7.

Claim 5 – Lack of inventive step (A7+A6)

A7 is the closest prior as it shows a bicycle with a pedalling efficiency improving system. See arguments under claim 4 for the features of the pedal of claim 5 being disclosed by A7.

A7 does not disclose:

- that the clipless pedals comprise a pedal body (101) made of carbon fibre reinforced plastic (CFRP) with a carbon nanotube-reinforced epoxy matrix and with carbon fibre tows of 6000 to 8000 strands, with each tow having a tensile elastic modulus of between 350GPa and 600GPa.

The technical effect achieved by these distinguishing features is defined in A1[0025] that: “the pedal body is stiff, strong, and lightweight”. Therefrom the objective technical problem can be derived as: “Providing a pedal body capable of absorbing high loads while maintaining a very low weight” (A1[0025]).

The skilled person would look at A6 as it relates to materials for use in cycling which have good impact absorption capabilities while maintaining low weight (abstract). A6 discloses that the use of CFRP is now spreading to low stiffness components, such as clipless pedals (abstract). A6 discloses that for low stiffness elements (clipless pedals) it is preferred to use 7K to 9K filaments per tow (1. Carbon fibres). It further discloses that in a most preferred embodiment the elastic modulus is in the range of 350GPa to 500 GPa (1. Carbon fibres). It further discloses that in such a most preferred embodiment nanotube-reinforced epoxy resins are generally used (2. Resins).

The person skilled in the art, when looking for a solution to the above mentioned problem, would not hesitate to modify the clipless pedals of A7 according to the most preferred

embodiment of A6 for clipless pedals (low stiffness elements). The values for torsion and tensile elastic modulus of the most preferred embodiment for clipless pedal overlap with the claimed values, meaning, at least one of the end points of the most preferred embodiment are within the range of the claim. The resin employed with the most preferred embodiment coincides with the resin claimed.

The skilled person is prompted to use the material of A6 for the pedal body of A7 in view of A7[0007], which mentions that “saving weight is a constant concern in cycling”.

Thus, the subject-matter of claim 5 lacks inventive step (Art. 56 EPC) in view of the combination of A7 and A6.

Claim 6 – Added subject-matter

Claim 6 was introduced during examination. The feature, that “the clipless pedals further comprise ceramic ball bearings”, has been extracted from A1[0024] of the application as originally filed. However, A1[0024] discloses that in order to achieve a reduced friction and an increased life span when compared to standard steel bearings, zirconia ball bearings and ceramic races need to be combined. The ceramic races and the zirconia ball material have however not been introduced into dependent claim 6.

The extraction of the feature “ceramic ball bearings” in isolation from the originally disclosed combination of features to which it is functionally related is an unallowable intermediate generalisation (Guidelines H-V, 3.2.1). The subject matter of claim 6 extends beyond the content of the patent application as originally filed and therefore contravenes Art. 123(2) EPC.

Claim 7 – Lack of inventive step (A3)

Claim 7 comprises technical features and non-technical features. Therefore, the “mixed type invention” approach applies (Guidelines G-VII, 5.4 [COMVIK]).

The technical features of claim 7 are:

- “A bicycle computer” and “displaying when the pedal efficiency surpasses or is below the 80%”, which are per se technical.

The non-technical features of claim 7 are:

- The manner in which the pedal efficiency information is displayed, through “a heart icon and an angry emoticon” is non-technical as it refers to a presentation of information (Guidelines G-II, 3.7).

The closest prior art is identified with a focus on the features contributing to the technical character of the invention (Guidelines G-VII, 5.4). A3 is considered to be the closest prior art as it discloses a bicycle computer which can display an efficiency parameter in percentage form (A3[0007]).

A3 shows a bicycle computer (bicycle computer 310, A3[0004]). A3 further shows the bicycle computer displaying an efficiency parameter in percentage form (A3[0007], “and when the pedalling efficiency is below 80%, an upwards pointing arrow is displayed”). The bicycle computer of claim 7 is suitable for the pedalling efficiency improving system of claim 4 (Guidelines F-IV, 4.13.1, “for” is to be interpreted as “suitable for”). Claim 4 defines that the bicycle computer has to be in communication with the sensor of the bicycle improving system. Thus, in order to be suitable for the pedalling efficiency system of claim 4, the bicycle computer of claim 7 only needs to be able to communicate with a sensor. A3 discloses a bicycle computer that can communicate with pedals having sensors of different brands A3[0008] using the BOT protocol. The bicycle computer of A3 is thus able to communicate with sensors and is suitable for the pedalling efficiency improving system of dependent claim 4.

A3 does not disclose:

- that what is displayed when the pedalling efficiency is above or below 80% is a heart icon or an angry emoticon.

The choice of the one or other manner of displaying information is not considered to have a technical effect as the alleged effect depends on subjective interests or preferences of the user (Guidelines G-II, 3.7) as for some users it will be easier to understand the deviation when displayed as an emoticon, whereas others might prefer the upwards pointing arrow. As the difference does not make any technical contribution to the prior art, the claim is not inventive (Guidelines G-VII, 5.4 (iii) (b)).

Therefore, the subject matter of claim 7 lacks inventive step (Art. 56 EPC) in view of A3.