Unified Patent Court
Einheitliches Patentgericht
Juridiction unifiée du brevet

Local Division Düsseldorf
UPC_CFI_723/2025

Order
of the Court of First Instance of the Unified Patent Court
issued on 12 February 2026
EP 4 346 690 B1

HEADNOTES:

1. The fact that a defendant in an application for provisional measures does not agree to the claim interpretation applied in the examination does not mean that the burden of substantiation and proof for (in)validity should shift to the patent proprietor. On the other hand, the defendant is free to bring forward arguments and evidence as to why the claim should be interpreted differently and why this would lead to invalidity of the patent in suit and may thereby also rely on prior art that was already assessed by the examiner.

2. The mere fact that an applicant for provisional measures relies on combinations of claim 1 with sub-claims does not lead to the invalidity of claim 1 being more likely than not.

3. The assessment by the Court of Appeal (UPC_CoA_534/2024, UPC_CoA_683/2024, UPC_CoA_19/2025, Decision of 3 October 2025, mn. 190, 198 and 199 – Belkin v Philips) of the liability of a managing director applies even more so to a (financial) holding company. When no action going beyond the typical role of shareholder/financial holding is alleged, the application against this defendant has to be rejected.

KEYWORDS:

application for provisional measures; validity of patent; provisional injunction

APPLICANT:

Align Technology, Inc., 410 North Scottsdale Road, Suite 1300, Tempe, Arizona 85288, United States

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DEFENDANTS:

1. **Angelalign Technology Inc.,** Maples Corporate Services Limited, PO Box 309, Ugland House, Grand Cayman, KY1-1104, Cayman Islands

2. **Angelalign France Technology SASU**, 147 Avenue de Malakoff, 75116 Paris, France

3. **Europe Angelalign Technology B.V.,** Herikerbergweg 292, 1101 CT Amsterdam, the Netherlands

4. **Angelalign Technology (Germany) GmbH**, Wankelstrasse 60, 50996 Cologne, Germany

5. **Italy Angelalign Technology S.R.L.,** Corso Vercelli 40, Milan CAP 20145, Italy

6. **Shanghai EA Medical Instruments Co., Ltd.,** Room 601-603, No. 500 Zhengli Road, Yangpu District, Shanghai, China

Represented by:	Arno Rißе, Rechtsanwalt and UPC Representative, Arnold Ruess Rechtsanwälte Part mbB, Königsallee 59a, 40215 Düsseldorf, Germany and Ulrich Storz, European Patent Attorney, and Wanze Zhang, Rechtsanwältin, Michalski Hüttermann & Partner Patentanwälte mbB, Kaistraße 16A, 40221 Düsseldorf, Germany
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PATENT IN SUIT:

EUROPEAN PATENT NO EP 4 346 690 B1

PANEL/DIVISION:

Panel of the Local Division in Düsseldorf

DECIDING JUDGES:

This order was issued by Presiding Judge Thomas, legally qualified Judge Dr Thom, legally qualified Judge Visser acting as judge rapporteur and technically qualified Judge Dr Papa.

LANGUAGE OF THE PROCEEDINGS: English

SUBJECT: R. 209.1 RoP – Application for provisional measures

DATE OF ORAL HEARING: 14 January 2026

SUMMARY OF THE FACTS:

1. By way of an application for provisional measures, the Applicant seeks a preliminary injunction and further provisional measures against the Defendants in respect of an alleged infringement of EP 4 346 690 B1 (hereinafter: the patent in suit).

2. The Applicant is the registered proprietor of the patent in suit. The patent in suit was filed on 1 June 2022 under the application number 22733820.9. It claims the priority of US 63/195,674 (1 June 2021). The date of publication and mention of the grant of the patent is 23 July 2025. Unitary effect was registered on 29 July 2025 and as a result the patent has an equal effect in all participating Member States (Art. 3 Regulation (EU) NO 1257/2012 (UP Regulation)). On 12 January 2026, opposition has been filed by Angelalign Technology (Germany) GmbH (Defendant 4) at the European Patent Office (EPO).

3. The patent in suit is titled "Automated management of clinical modifications to treatment plans using three-dimensional controls". Its claim 1 reads as follows:

> 1. A method for automated management of clinical modifications to a treatment plan for orthodontically treating teeth, the method comprising:
>
> generating a digital model of a final position of a patient's teeth from a scan of the patient's teeth in an initial position of the patient's teeth;
>
> generating the treatment plan comprising incremental positions of the patient's teeth to move the patient's teeth from the initial position towards the final position;
>
> providing a three-dimensional representation of the treatment plan to a display (1324);
>
> receiving, in real time, a user request to modify the treatment plan,
>
> **characterised by**
>
> determining, in real time, that the requested user modification is within a predetermined thresholds for modifications to the treatment plan,
>
> generating, automatically and in real time when the user requested modification is within the predetermined threshold, a revised treatment plan based on the user requested modification; and
>
> outputting to the display a three-dimensional representation of the revised treatment plan.

4. Claim 13 reads as follows:

> 13. The method of claim 1, further comprising: outputting instructions for fabricating a plurality of orthodontic appliances based on the modified treatment plan; and/or forming one or more aligners from the modified treatment plan.

5. Claim 15 reads as follows:

> 15. A system (200) for orthodontically treating teeth, the system comprising: one or more processors and memory comprising instructions that when executed by the one more processors (1314) causes the system to carry out the method of one or more of claims 1 to 12.

6. With regard to the wording of claims 3, 5, 7, 8, 9, 10 and 14, which are only asserted by way of "in particular if" motions, reference is made to the patent specification of the patent in suit.

7. The following scaled-down figures, taken from the patent in suit, illustrate an embodiment of the invention. According to the description of the patent in suit, figures 4A-B illustrate an example workflow for automated management of clinical modifications to treatment plans.

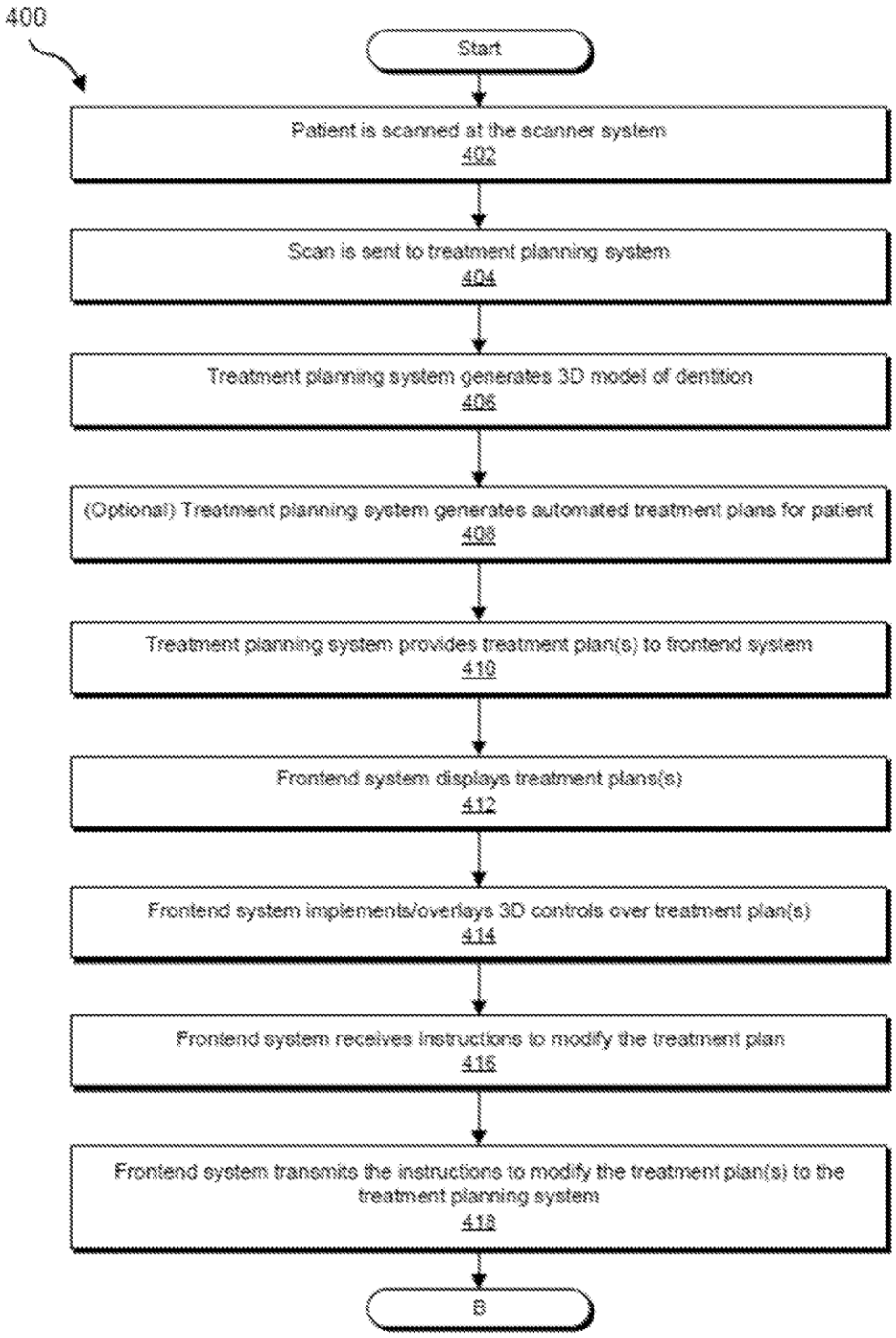

400
Start
Patient is scanned at the scanner system
402
Scan is sent to treatment planning system
404
Treatment planning system generates 3D model of dentition
406
(Optional) Treatment planning system generates automated treatment plans for patient
408
Treatment planning system provides treatment plan(s) to frontend system
410
Frontend system displays treatment plans(s)
412
Frontend system implements/overlays 3D controls over treatment plan(s)
414
Frontend system receives instructions to modify the treatment plan
416
Frontend system transmits the instructions to modify the treatment plan(s) to the treatment planning system
418
B

FIG. 4A

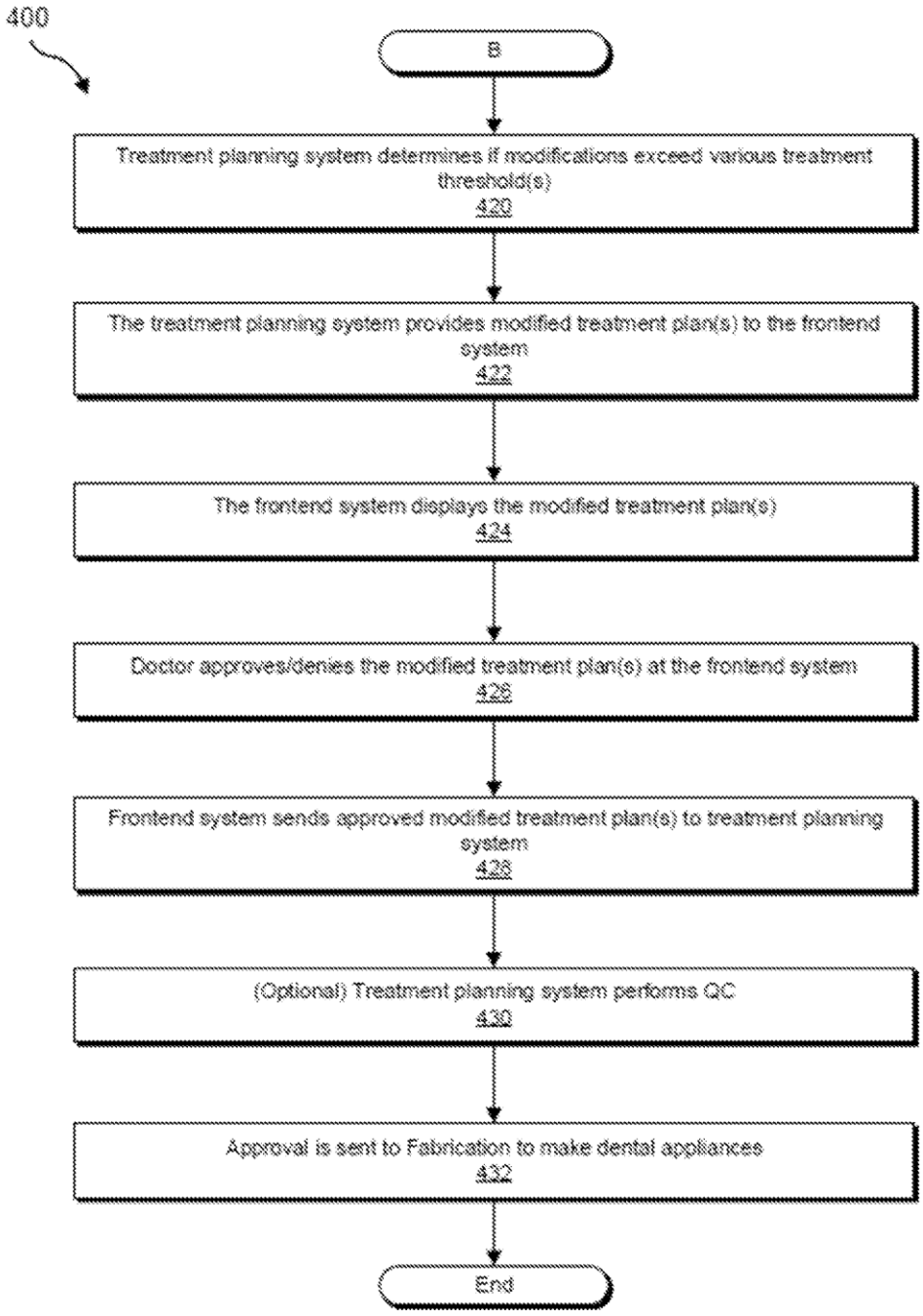


FIG. 4B

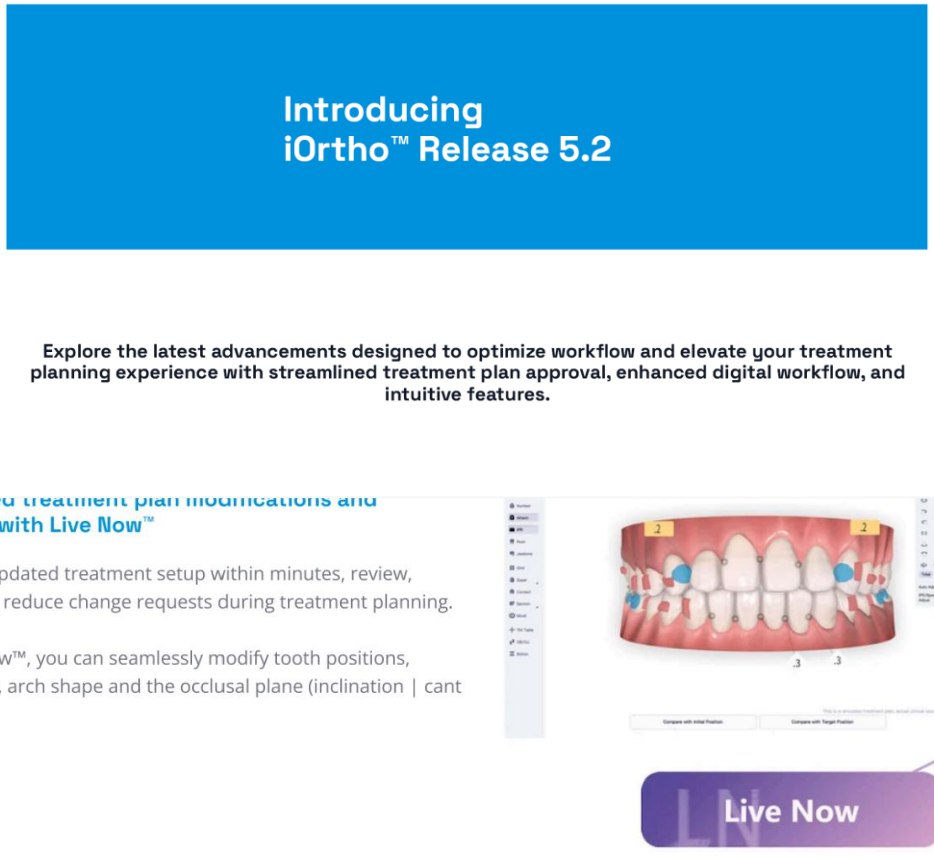
8. The Applicant, founded in 1997, is a company based in the United States of America active in over 100 countries in the field of clear aligner orthodontic therapy. The Applicant provides aligners and associated interoral scanners, digital imaging systems and digital software tools for treatment planning, known as 'Clincheck'. Since 2022, the Applicant provides software with a feature called 'Live Update'.

9. Clear aligner orthodontic therapy involves the patient wearing removable transparent plastic trays (also referred to as 'appliances' and 'aligners'). The patient is given a series of different appliances and is to wear them one after the other, such that the patient's teeth are progressively and incrementally repositioned to a final configuration. An aligner is a clear plastic shell which conforms closely to the patient's teeth. Each tooth fits in a respective cavity. The aligner can be shaped such that it urges the teeth into a new position.

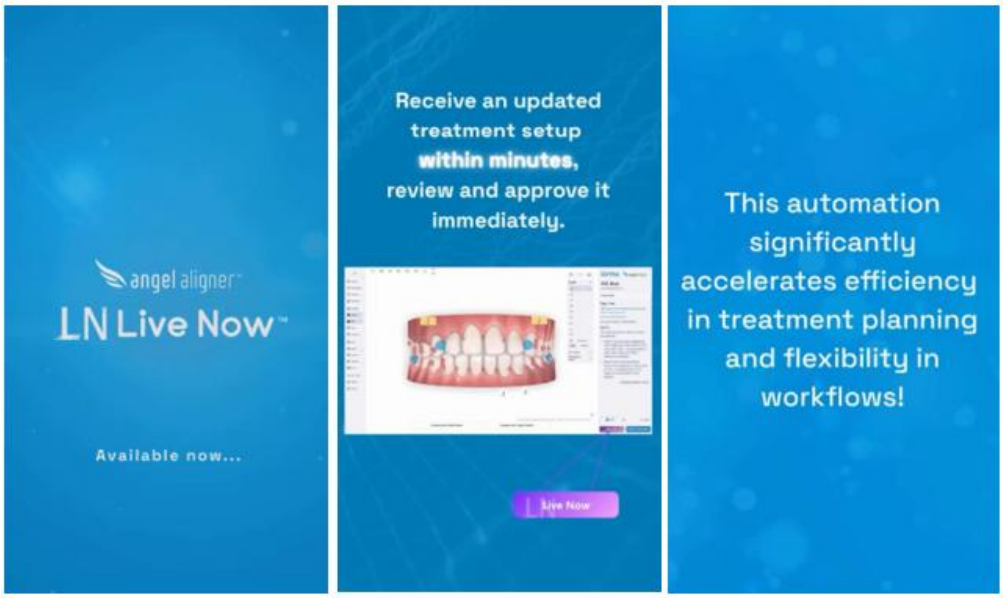
10. The Defendants are part of the Angelalign Technology group, founded in 2003 and active in over 50 countries in the same field of clear aligner orthodontic therapy. Defendant 6 is a wholly owned subsidiary of Defendant 1. Defendants 3-5 are indirect wholly owned subsidiaries of Defendant 1. Defendant 3 is the sole shareholder of Defendants 2, 4 and 5. The sole shareholder of Defendant 3 is Angelalign Technology Pte. LTD which has its principal place of business in Singapore and is a wholly owned subsidiary of Defendant 1.

11. Defendants 1, 2, 4, 5 and 6 offer clear aligner orthodontic treatment systems together with its treatment planning system 'iOrtho' in the UPC territory through its English international website that is also directed at the European market, and through dedicated subpages for inter alia Germany, France, Italy, Portugal. The aligner systems and software are available throughout Europe, including in most Contracting Member States.

12. Since May 2025, the latest version of the 'iOrtho' software, release 5.2, includes the so-called 'Live Now' function. The following screen capture dated 27 July 2025 of the Defendants' website has been provided by the Applicant as part of Exhibit CR-PM-17:



13. Inter alia the following screen shots of a promotional video on the Defendants' "angelaligner europe" Instagram account on 16 May 2025 have been provided by the Applicant as part of Exhibit CR-PM-18):



14. The iOrtho Software, release 5.2 with the "Live Now" function will hereinafter also be named the challenged embodiment I. The aligners manufactured accordingly will also be named the challenged embodiment II.

15. The challenged embodiment I realises the features of claims 1, 3, 5, 7, 8, 9, 10, 13 and 14 of the patent in suit and form essential means which cause the method of any of the claims 1, 3, 7, 8 and 9 to be performed, while Defendants 1, 2, 4, 5 and 6 know that those means are suitable and intended for putting the invention into effect (claim 15 – challenged embodiment II).

16. Defendant 1 operates the international website on which the challenged embodiments I and II are advertised and the European regional subpages of this website for inter alia Germany, France, Italy and Portugal. Defendant 2 is the Defendants' headquarters in Europe. It is in an ongoing business relationship with the other Defendants located in Europe and coordinates the distribution of the challenged embodiments I and II within Europe. Defendant 2 sells and markets the challenged embodiments I and II in France and operates the Angel Aligner webshop with its respective regional subpages for inter alia Germany, France, Italy, and Portugal. Defendant 2 also offers the challenged embodiment I, inter alia, on the Apple AppStore in the territory of the UPC, inter alia in the German AppStore. It is also responsible for the European social media pages, for example, the Facebook page. Defendant 3 is the sole shareholder of Defendants 2, 4 and 5. Defendant 4 sells and markets the challenged embodiments I and II in Germany and organises events, training courses and conferences in Germany, Austria and the Netherlands, where it promotes these challenged embodiments. Defendant 5 distributes the challenged embodiments I and II in Italy. Defendant 6 operates and maintains the challenged embodiment I, that is accessible in the territory of the UPC.

INDICATION OF THE PARTIES REQUESTS:

17. The Applicant requests the following:

A. The Defendants are ordered, in the territories of Austria, Belgium, Bulgaria, Germany, Denmark, Estonia, Finland, France, Italy, Lithuania, Luxembourg, Latvia, Malta, The Netherlands, Portugal, Romania, Sweden and Slovenia,

to cease and desist from

I. using or offering for use

1. a method for automated management of clinical modifications to a treatment plan for orthodontically treating teeth, the method comprising:

generating a digital model of a final position of a patient's teeth from a scan of the patient's teeth in an initial position of the patient's teeth;

generating the treatment plan comprising incremental positions of the patient's teeth to move the patient's teeth from the initial position towards the final position;

providing a three-dimensional representation of the treatment plan to a display (1324);

receiving, in real time, a user request to modify the treatment plan,

characterised by

determining, in real time, that the requested user modification is within a predetermined thresholds for modifications to the treatment plan,

generating, automatically and in real time when the user requested modification is within the predetermined threshold, a revised treatment plan based on the user requested modification; and

outputting to the display a three-dimensional representation of the revised treatment plan;

(Direct infringement of claim 1)

2. in particular if generating the treatment plan comprises generating the treatment plan at a remote processor and transferring the treatment plan to a local processor that is in immediate communication with the display; and optionally wherein generating the revised treatment plan comprises generating the treatment plan at the local processor; and/or further comprising transferring the revised treatment plan to the remote processor for quality review;

(Direct infringement of claim 3)

3. and in particular if the method further comprises overlaying three-dimensional controls over the treatment plan on the display, and optionally further comprising receiving the user request to modify the treatment plan via the three-dimensional controls, wherein the request to modify the

treatment plan is based on the modification received via the three-dimensional controls.

(Direct infringement of claim 5)

4. and in particular if the method further comprises returning an indication to the display if the user request to modify the treatment plan is outside of the predetermined thresholds for modifications to the treatment plan;

(Direct infringement of claim 7)

5. and in particular if the predetermined thresholds for modifications to the treatment plan are one or more of: tooth movement thresholds; and locations thresholds for aligner features;

(Direct infringement of claim 8)

6. and in particular if the location threshold is a proximity threshold with respect to a gingival line; and/or wherein the indication includes a visual indication of the location threshold on the display; and/or wherein the aligner features are one of an attachment, a cut, a hook, or power ridges;

(Direct infringement of claim 9)

7. and in particular if the modification is one or more of: a modification to a tooth location, interproximal reduction amount, tooth shape, pontic shape, gingiva shape, the final position of the patient's teeth, intermediate positions of the patient's teeth in one or more stages of the treatment plan, to locations of or stages used for attachments, locations of or stages used for power ridges, locations of or stages used for hooks, locations of or stages used for precision cuts, or locations of or stages used for interproximal reduction;

(Direct infringement of claim 10)

8. and in particular if generating, automatically and in real time comprises generating within 10 minutes or less of receiving the user request to modify the treatment plan;

(Direct infringement of claim 14)

II. manufacturing, offering, placing on the market or using, or importing or storing for the aforementioned purposes,

orthodontic appliances obtained directly by the method of claim 1, further comprising: outputting instructions for fabricating a plurality of orthodontic appliances based on the modified treatment plan; and/or forming one or more aligners from the modified treatment plan;

(Direct infringement of claim 13)

III. supplying and/or offering to supply for use means which are suitable and intended for use in, a system (200) for orthodontically treating teeth, the system comprising:

one or more processors and memory comprising instructions that when executed by the one more processors (1314) causes the system to carry out the method of one or more of claims 1 to 12;

(Indirect infringement of claim 15)

in the alternative, should the court not find direct infringement of claims 1, 3, 5, 7, 8, 9, 10, 13, and 14,

IV. supplying and/or offering to supply for use means which are suitable and intended to use with

1. a method for automated management of clinical modifications to a treatment plan for orthodontically treating teeth, the method comprising:

generating a digital model of a final position of a patient's teeth from a scan of the patient's teeth in an initial position of the patient's teeth;

generating the treatment plan comprising incremental positions of the patient's teeth to move the patient's teeth from the initial position towards the final position;

providing a three-dimensional representation of the treatment plan to a display (1324);

receiving, in real time, a user request to modify the treatment plan,

characterised by

determining, in real time, that the requested user modification is within a predetermined thresholds for modifications to the treatment plan,

generating, automatically and in real time when the user requested modification is within the predetermined threshold, a revised treatment plan based on the user requested modification; and

outputting to the display a three-dimensional representation of the revised treatment plan;

(Indirect infringement of claim 1)

2. in particular if generating the treatment plan comprises generating the treatment plan at a remote processor and transferring the treatment plan to a local processor that is in immediate communication with the display; and optionally wherein generating the revised treatment plan comprises generating the treatment plan at the local processor; and/or further comprising transferring the revised treatment plan to the remote processor for quality review;

(Indirect infringement of claim 3)

3. and in particular if the method further comprises overlaying three-dimensional controls over the treatment plan on the display, and optionally further comprising receiving the user request to modify the treatment plan via the three-dimensional controls, wherein the request to modify the

treatment plan is based on the modification received via the three-dimensional controls.

(Indirect infringement of claim 5)

4. and in particular if the method further comprises returning an indication to the display if the user request to modify the treatment plan is outside of the predetermined thresholds for modifications to the treatment plan;

(Indirect infringement of claim 7)

5. and in particular if the predetermined thresholds for modifications to the treatment plan are one or more of: tooth movement thresholds; and locations thresholds for aligner features;

(Indirect infringement of claim 8)

6. and in particular if the location threshold is a proximity threshold with respect to a gingival line; and/or wherein the indication includes a visual indication of the location threshold on the display; and/or wherein the aligner features are one of an attachment, a cut, a hook, or power ridges;

(Indirect infringement of claim 9)

7. and in particular if the modification is one or more of: a modification to a tooth location, interproximal reduction amount, tooth shape, pontic shape, gingiva shape, the final position of the patient's teeth, intermediate positions of the patient's teeth in one or more stages of the treatment plan, to locations of or stages used for attachments, locations of or stages used for power ridges, locations of or stages used for hooks, locations of or stages used for precision cuts, or locations of or stages used for interproximal reduction.

(Indirect infringement of claim 10)

8. orthodontic appliances obtained directly by the method of claim 1, further comprising: outputting instructions for fabricating a plurality of orthodontic appliances based on the modified treatment plan; and/or forming one or more aligners from the modified treatment plan;

(Indirect infringement of claim 13)

9. and in particular if generating, automatically and in real time comprises generating within 10 minutes or less of receiving the user request to modify the treatment plan

(Indirect infringement of claim 14)

B. For each individual infringement of the orders under A., the respective Defendant shall pay to the Court a (possibly repeated) penalty payment of up to EUR 10,000 per infringing product and/or, in the case of continuous infringement such as the offering of the infringing method, of up to EUR 20,000 per day.

C. The Defendants are ordered to provisionally reimburse the Applicant for costs in the amount of EUR 800,000.00.

D. The Defendants have to pay the costs of the proceedings.

E. The above orders are immediately enforceable.

18. The Defendants request that:

I. The Application for provisional measures is rejected.

II. The Applicant shall bear the costs of the proceedings, including reasonable and proportionate legal costs and other expenses incurred by the Defendants.

19. In the event that the Court enters a preliminary injunction as per section A and B of the Applicant's request, the Defendants further request:

III. The order is enforceable for the Applicant only once it has provided security in favour of the Defendants in the form of a deposit or a bank guarantee issued by a bank licensed in the European Union in the amount of EUR 12,000,000.

POINTS AT ISSUE:

Infringement and liability

20. In the Rejoinder, the Defendants argue that the patent in suit is not infringed because in the challenged embodiment I, the generation of a revised treatment plan is not predicated on the requested modification being within the threshold. The error-message that the Applicant is relying on is the result of a failure for technical reasons and not of any determination that the modification is within a predetermined threshold, according to the Defendants. Furthermore, the Defendants state that the challenged embodiment I only allows the user to request modifications that are within the predetermined threshold, so there is no step of determining, after a request is received, whether the requested modification is within the threshold.

21. These late-filed arguments on infringement by the Defendants brought forward for the first time in the Rejoinder have been dismissed by the Court.

22. The Defendants contest that Defendant 3 is liable because it is not involved in any of the allegedly infringing activities.

Validity

23. In their Objection, the Defendants state that the Application is unfounded because the Patent is invalid. They submit that validity cannot be assumed because the examination was flawed and based on a wrong interpretation of claim 1.

24. The Defendants state that claim 1 of the patent in suit lacks novelty over patent applications US 20200297458 A1 (“D1”), US 20190175303 A1 (“D2”) and US 2018263733 A1 (“D3”), the documents “Invisalign ClinCheck Pro User Guide” (“D4”) and “3Shape Clear Aligner Studio Manual” (“D5”) and the YouTube video "3Shape Clear Aligner Studio workflow with Bernhard Egger" (“D6”).

25. As “general considerations“ regarding inventive step of claim 1 of the patent in suit, the Defendants state that if the references submitted above were not considered to be novelty destroying, they would at least render the alleged invention claimed by the patent in suit obvious because automating a known manual procedure does not constitute a patentable invention. In this context, the Defendants also refer to the treatment planning process according to the prior art described in (the background section of) the patent in suit. Furthermore, the patent in suit fails to disclose how the “in real time” features are actually achieved. If the skilled person could have realized this based on common general knowledge, the patent would also be obvious, according to the Defendants. If this were not the case, there would be a lack of sufficient disclosure.

26. The Defendants further state that the patent in suit lacks inventive step over any of the documents D1 to D6 in combination with “the expert knowledge”. Also here, it is stated that as it is not disclosed how the method can be executed, claim 1 either does not enable the skilled person to carry out the invention, or it does not rely on an inventive step. Furthermore, it is stated that the patent lacks inventive step over European patent EP 2 263 598 B1 (“D7”) in combination with European patent EP 1 991 939 B1 (“D8”).

27. The Defendants further contest the validity of the dependent claims relied on for lack of novelty and/or inventive step, thereby referring to D1, D2, D3, D4, D5, D7 and patent application US 20080305454 A1 (“D9”).

28. Furthermore, the Defendants state that claim 15 is invalid, because it lacks sufficient disclosure and does not enable the skilled person to carry out the alleged invention. They argue that, while the system as set forth in claim 15 comprises processors and memories to carry out the method of claims 1 to 12, the method of claims 1 to 12 does not treat teeth orthodontically. That would require converting the treatment plan into an actual orthodontic treatment with, for example, appliances fabricated based on that plan administered or handed out to a patient.

29. The Applicant contests that there were any deficiencies in the EPO’s approach to examination of the claims.

30. Regarding novelty, the Applicant generally states that the Defendants do not consider the overall teaching of the cited documents, but instead cite a large number of disparate paragraphs and sections of each of the cited documents, without ever linking them together. With regard to each of D1 to D6, the Applicants contests that this prior art discloses all features of claim 1.

31. With regard to the inventive step objection based on the automation of known steps, in general and with regard to D1-D6, the Applicant argues that the claims represent more than a mere automation, because the patent in suit provides a whole new way of working. Furthermore, it argues that the lack of superfluous technical detail is no bar to inventive step or sufficiency of disclosure, because the skilled person being familiar with software, once appraised of the novel and inventive concept of the patent in suit, is able to put the claimed invention into effect. The Applicant however underlines that, while the skilled person would be able to put the claims into effect, it would not be motived to do so by the prior art, since the core of the invention lies in the new way of treatment planning that is not contemplated by the prior art and not shown or motivated when starting from any of D1 to D6.

32. As to inventive step over D7 in combination with D8, the Applicant states that the skilled person would not consider D7, that D7 does not disclose several features of claim 1, that the skilled person would not consider D8 to be relevant and that D8 does not disclose any missing feature in D7.

33. The Applicant furthermore states that, when properly interpreted, the skilled person would not have any difficulty putting the system according to claim 15 into effect.

Dependent claims in proceedings on provisional measures

34. The Defendants argue that the Application for provisional measures must be rejected because the Applicant has submitted (auxiliary) requests that would amount to amendments to the patent as granted, because they combine claim 1 with the features of the dependent claims. The Defendants further argue that provisional measures can only be ordered if the Court is sufficiently satisfied that the patent is valid in its granted form. The Applicant asserted nine dependent claims, that with each of the alternative options results in more than 20 additional limitation options. According to the Defendants, this demonstrates that not even the Applicant has sufficient trust in the validity of the patent as granted. Consequently, it must be assumed that the patent is likely invalid in its granted form.

35. The Applicant, at the request of the Court, stated that, in the event that the Court considers claim 1 to be more likely than not invalid, the combination it wishes to fall back to is claim 1 + sub-claim 9, more specifically the first option in that claim.

Urgency and necessity of provisional measures

36. The Applicant states that it made the application without undue delay after the grant of the patent in suit and that provisional measures are necessary to prevent the Applicant form suffering a significant loss of market share that could neither be regained nor be remedied by later compensation.

37. The Defendants argue that provisional measure are not necessary, since the Application is not intended to seek protection from imminent and irreparable harm and the Applicant attempts to lastingly change an existing market order that was formed before the patent was even granted.

Security for enforcement

38. The Defendants argue that the Applicant is located in the United States of America and thus outside the territory of the Contracting Member States and the European Union. If the preliminary injunction was later revoked and the Applicant was ordered to compensate the Defendants for any injury caused by those measures, they would have to enforce such an award in the United States of America. As recognized by the Local Division Munich, proceedings for the recognition of and enforcement of a foreign damages award in the United States of America incur considerable legal costs which, even if successful, could be non-reimbursable by the Applicant in the present proceedings (UPC_CFI_74/2024, order of 27 August 2024, p. 60, Hand Held Producs v Scandit).

39. The Applicant contests that there are any grounds for security for enforcement. It has referred to its strong financial position and has brought forward that it has been found predictable by most Local Divisions that foreign decisions are enforceable in the United States of America.

MAIN STEPS OF THE PROCEEDINGS:

40. On 15 August 2025, the Applicant has filed an Application for provisional measures against the Defendants. On 23 October 2025, the Defendants filed an Objection, including a request for security for costs. On 10 and 28 November 2025 respectively, a Reply and a Rejoinder have been submitted.

41. By Order dated 6 November 2025, the request for security for costs by the Defendants was dismissed.

42. By Order of 16 December 2025, upon request by the Applicant, the Court decided that it will disregard the late-filed non-infringement arguments submitted in paras. 13-24 of the Rejoinder and Exhibit AR 7 and further dismissed the request of the Defendants for the exchange of further written pleadings pursuant to R. 36 RoP.

43. On 23 December 2025, the Defendants requested leave to appeal the Order 16 December 2025. On 29 December 2025 the Court refused the request for leave to appeal.

44. On 5 January 2026, the Defendants requested a discretionary review by the Court of Appeal pursuant to Art. 220.3 RoP of the Order of 16 December 2025. By Order of 6 January 2026, the standing judge of the Court of Appeal dismissed the request.

45. In the Order of 10 January 2026, the Presiding Judge, inter alia, against the background that the Applicant bases its Application for provisional measures on claims 1, 13 and 14 and additionally refers to sub-claims 3, 5, 7, 8, 9, 10 and 14 in form of "in particular of"-requests, requested the Applicant to notify the Court of one combination of claim 1 and the aforementioned sub-claims (e.g. claim 1 + sub-claim X) to which it wishes to fall back, if necessary, should the Court consider claim 1 to be more likely than not invalid.

46. In the same Order, the Defendants were requested to name the three validity attacks that they consider to be the most promising.

47. On 13 January, the Applicant informed the Court that, in the event that the Court considers claim 1 to be more likely than not invalid, the combination it wishes to fall back to is claim 1 + sub-claim 9, more specifically the following option: "wherein the location threshold is a proximity threshold with respect to a gingival line".

48. By submission of 13 January 2026, the Defendants informed the Court that they currently consider the following three validity attacks to be the most promising, particularly with respect to the independent claims: novelty in light of D2, novelty in light of D6, and inventive step in light of D7 combined with D8.

49. In the same document, the Defendants have informed the Court that the Defendants lodged an Opposition against the patent at issue at the EPO on 12 January 2026 and summitted a copy of the opposition document together with the attachments thereto as Exhibit AR8. At the oral hearing, the Presiding Judge has informed the parties that the Court will not consider the content of these documents.

50. On 13 January 2026, uploaded in the CMS on 14 January 2026, the Applicant filed a submission with regard to the application for interim award of costs under R. 211.1(d) RoP.

GROUNDS FOR THE ORDER

I. International jurisdiction and competence

51. The Court has international jurisdiction on the basis of Art. 31 and 32(1) (c) UPCA and Art. 7(2) in conjunction with Art. 71b(1) and (2) of the Brussels I recast Regulation as the challenged embodiments are (also) offered within Germany. The Düsseldorf Local Division is furthermore competent according to Art. 33(1)(b) UPCA, since Defendant 4 has its principal place of business in Germany, the Defendants have a commercial relationship and the action relates to the same alleged infringement.

II. Preliminary injunctions

a) General principles

52. Pursuant to Art 62 UPCA and R. 211 RoP the Court may, in taking a decision regarding preliminary injunctions against a defendant, require the applicant to provide reasonable evidence to satisfy the Court with a sufficient degree of certainty that the applicant is entitled to commence proceedings, that the patent in question is valid and that his right is being infringed, or that such infringement is imminent.

53. Such a sufficient degree of certainty requires that the Court considers it at least more likely than not that the applicant is entitled to initiate proceedings and that the patent is infringed. A sufficient degree of certainty is lacking if the Court considers it on the balance of probabilities to be more likely than not that the patent is not valid. The burden of presentation and proof for facts allegedly establishing the entitlement to initiate proceedings and the infringement or imminent infringement of the patent, as well as for all other circumstances allegedly supporting the applicant's request, lies with the applicant, whereas, the burden of presentation and proof for facts concerning the lack of validity of the patent and other circumstances allegedly supporting the defendant's position lies with the defendant (UPC_CoA_335/2023, Order of 26 February 2024 – NanoString/10x Genomics, see p. 26-27; UPC_CoA_182/2024, Order of 25 September 2024 – Mammut Sports v. Ortovox; UPC_CFI_213/2025 (LD Düsseldorf), Order of 10 July 2025, mn. 91 – Aesculap v Shanghai International Holding; UPC_CFI_712/2025 (LD Düsseldorf), Order of 5 December 2025, mn. 195 – Roche v Menarini).

b) Case at hand

54. The Defendants have brought forward that the rule that the burden of presentation and proof for facts concerning the lack of validity of the patent lies with the defendant is based on the presumption that the application was duly and thoroughly examined by the EPO before granting the patent. They submit that this does not apply in the present case, because the examination of the patent in suit by the EPO was objectively flawed and evidently fails to meet the standards set by the EPC.

55. The Court rejects this argument. The fact that the Defendants do not agree to the claim interpretation applied in the examination does not mean that the above-mentioned burden of proof should shift to the patent proprietor. On the other hand, the Defendants are free to bring forward arguments and evidence as to why the claim should be interpreted differently and why this would lead to invalidity of the patent in suit and may thereby also rely on prior art that was already assessed by the examiner.

56. The above-mentioned general principles will be applied as stated out below.

III. Entitlement

57. As the Applicant is the registered proprietor of the patent in suit, it can be assumed for the purposes of these preliminary injunction proceedings that the Applicant is entitled to bring actions and thus also applications for preliminary injunctions and other provisional measures before the Court under Art. 47(1) UPCA in conjunction with R. 8.5 (a) and (c) RoP (UPC_CFI_347/2024 (LD Düsseldorf), Order of 31 October 2024, Headnote 1 – Valeo v Magna).

IV. Teaching of the Patent in suit and Claim Construction

1. The patent in suit

a) Scope of the patent

58. The patent in suit relates to the field of planning orthodontic and dental treatments using a series of patient-removable appliances (e.g. "aligners). It describes in the background section that treatment planning is typically performed in conjunction with the dental professional by generating a model of the patient's teeth in a final configuration and then breaking the treatment plan into a number of intermediate stages (steps) corresponding to individual appliances that are worn sequentially. This process may be interactive, adjusting the staging and in some cases the final target position, based on constraints on the movement of the teeth and the dental professional's preferences. Once the final treatment plan is finalized, the series of aligners may be manufactured corresponding to the treatment planning (para. [0001]).

59. In paragraph [0009] of the patent in suit, aligners are described as e.g., polymeric appliances having a plurality of tooth-receiving cavities shaped to successively reposition a person's teeth from an initial arrangement toward a target arrangement. Fig 1A of the patent in suit illustrates an exemplary tooth repositioning appliance or aligner:

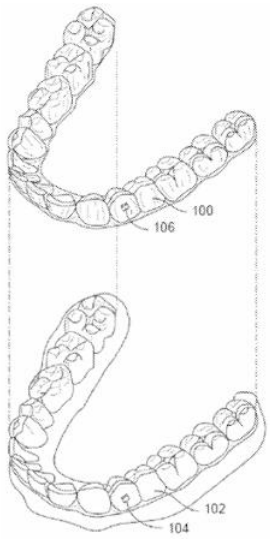


FIG. 1A

60. In the patent in suit, it is explained in paragraph [0002] that this treatment planning process may include many manual steps that are complex and may require a high level of knowledge of orthodontic norms. Further, because the steps are performed in series, the process may require a substantial amount of time. Manual steps may include preparation of the model for digital planning, reviewing and modifying proposed treatment plans (including staging) and aligner features placement (which includes features placed either on a tooth or on an aligner itself). These steps may be performed before providing an initial treatment plan to a dental professional, who may then modify the plan further and send it back for additional processing to adjust the treatment plan, repeating (iterating) this process until a final treatment plan is completed and then provided to the patient.

61. As a drawback of this treatment planning process, the patent in suit describes in paragraph [0003] that the additional manual processing when modifying the plan may add delay to the overall workflow, up to several weeks in some instances. For instance, a dental professional may send instructions to a dental technician for manually modifying the treatment plan. These instructions may be added to the technician's queue such that the technician may not quickly turn around the modified plan. In addition, when the dental professional receives the modified plan for approval, the dental professional may require additional time to recall the patient and the intended treatment, further reducing efficiency.

62. The patent in suit therefore states that there is a need for apparatuses (e.g., system and devices, including software) and methods that may improve treatment planning, including potentially increasing the speed at which treatment plans may be completed, as well as providing greater choices and control to the dental professional. According to the patent in suit, the methods and apparatuses described therein may address these needs (para. [0004]).

63. Regarding prior art, the patent in suit states in paragraph [0005] that in US2020297458A1 there are described methods and apparatuses for automatic treatment planning, including recommendation systems, quality assurance, error prevention, text mining, text matching, and treatment planning optimization. This prior art document is the same as D1 in this case.

64. Under the "Summary of the disclosure" it is stated that the patent in suit describes apparatuses (e.g., systems and devices, including software) and methods for automated management of clinical modifications to treatment plans using three-dimensional controls (para. [0007]). It is further described that the systems and methods may improve the functioning of a computing device by reducing computing resources and overhead for transmitting and/or storing updated treatment planning data, thereby improving processing efficiency of the computing device over conventional approaches. The systems and methods may also improve the field of orthodontic treatment by improving the efficiency of treatment planning and reducing a time to reach a fabrication stage. Moreover, the systems and methods may improve the field of medical care by improving a digital workflow procedure by reducing costs of human time spent on processing, increasing efficiency via automation and reducing potential errors, according to paragraph [0008].

b) Claim features

65. With regard to the needs and improvements stated above, the patent in suit provides in claim 1 and 13 a method for automated management of clinical modifications to a treatment plan for orthodontically treating teeth comprising the following features:

Claim 1:

1.1 A method for automated management of clinical modifications to a treatment plan for orthodontically treating teeth, the method comprising:

1.2 generating a digital model of a final position of a patient's teeth from a scan of the patient's teeth in an initial position of the patient's teeth;

1.3 generating the treatment plan comprising incremental positions of the patient's teeth to move the patient's teeth from the initial position towards the final position;

1.4 providing a three-dimensional representation of the treatment plan to a display (1324);

1.5 receiving, in real time, a user request to modify the treatment plan,

characterised by

1.6 determining, in real time, that the requested user modification is within a predetermined thresholds for modifications to the treatment plan,

1.7 generating, automatically and in real time when the user requested modification is within the predetermined threshold, a revised treatment plan based on the user requested modification; and

1.8 outputting to the display a three-dimensional representation of the revised treatment plan.

Claim 13:

13.1 The method of claim 1, further comprising:

13.2 outputting instructions for fabricating a plurality of orthodontic appliances based on the modified treatment plan; and/or

13.3 forming one or more aligners from the modified treatment plan.

66. Claim 15 provides a system for orthodontically treating teeth comprising the following features:

15.1 A system (200) for orthodontically treating teeth, the system comprising:

15.2 one or more processors and memory comprising instructions that when executed by the one more processors (1314) causes the system to carry out the method of one or more of claims 1 to 12.

2. Claim construction

a) General principles

67. The patent claim is not only the starting point but the decisive basis for determining the protective scope of a European patent under Art. 69 EPC in conjunction with the Protocol on the Interpretation of Art. 69 EPC. The interpretation of a patent claim does not depend solely on the strict, literal meaning of the wording used. Rather the description and the drawings

must always be used as explanatory aids for the interpretation of the patent claim and not only to resolve any ambiguities in the patent claim. However, this does not mean that the patent claim merely serves as a guideline and that its subject matter extends to what, after examination of the description and drawings appears to be the subject-matter for which the patent proprietor seeks protection. The patent claim is to be interpreted from the point of view of a person skilled in the art. In applying these principles, the aim is to combine adequate protection for the patent proprietor with sufficient legal certainty for third parties. These principles for the interpretation of a patent claim apply equally to the assessment of the infringement and the validity of a European patent (UPC_CoA_335/2023, Order of 26 February 2024, mn. 73 et seq. – 10x Genomics v. Nanostring; UPC_CoA_1/2024, Order of 13 May 2024, mn. 26 – VusionGroup v. Hanshow; UPC_CoA_182/2024, Order of 25 September 2024, mn. 82 – Mammut v. Ortovox).

68. The division into claim features is for reference only. Claim features must always be interpreted in the light of the claim as a whole (UPC_CoA_528/2024, Decision of 25 November 2025, mn. 40 – Amgen v. Sanofi).

b) Case at hand

(1) The skilled person

69. The parties agree that the relevant person skilled in the art related to the patent in suit is a software engineer with a background in orthodontics and experience in the field of orthodontic treatment planning software for clear aligner therapy. The Court will follow them in this view.

(2) Claim features claim 1

70. Some claim features require further explanation.

a) Feature 1.1 – a method for automated management of clinical modifications for a treatment plan for orthodontically treating teeth

71. According to feature 1.1., claim 1 protects a method for automated management of clinical modifications. In light of the usual meaning and in light of the overall purpose and teaching of the patent in suit (see e.g. paras. [0004] [0007] and [0008]), the skilled person would understand this statement of purpose as meaning that the method must be suitable for enabling automatic management. For the method to be suitable for such automatic management, it must enable all steps to be performed in an automated way, which means computer-implemented. However, this does not preclude that further steps being outside of the claimed method are being performed manually.

b) Feature 1.3 – generating the treatment plan comprising incremental positions of the patient's teeth to move the patient's teeth from the initial position towards the final position

72. According to feature 1.3, in conjunction with feature 1.1, the treatment plan for orthodontically treating teeth at least comprises incremental positions of the patient's teeth to move the patient's teeth from the initial position (see feature 1.2) towards the final position (see feature 1.2). It follows from the examples of modifications to a treatment plan according to feature 1.5, that a treatment plan may also for example include interproximal reduction and attachments, power ridges, precision cuts or hooks.

c) Feature 1.5 – receiving, in real time, a user request to modify the treatment plan

73. According to the patent description, the "user request to modify" the treatment plan may be provided by the user through 3D controls, text instructions or an IPL compatible input (see e.g. paragraph [0016] and claim 5). Examples for such modifications (see also feature 1.1) can be found in paragraphs [0017], [0025], [0045], [0055] and [0073] as well as in claim 10 and include:

- tooth shape or location,
- amount of, location of or stages used for interproximal reduction,
- pontic shape,
- gingiva shape,
- final position of the patient's teeth,
- intermediate positions of the patient's teeth in one or more stages of the treatment plan,
- locations of, or stages used for, attachments, power ridges, precision cuts or hooks.

74. According to feature 1.5, the request is received "in real time". This should be read in comparison to feature 1.7 which states that the revised treatment plan is generated "automatically and in real time". Consequently, the terms "in real time" and "automatically" cannot be considered entirely synonymous and "in real time" would be understood by the skilled person as an additional limitation concerning the time delays involved. Paragraph [0019] of the patent in suit reads:

> [0019] In any of these methods generating, automatically and in real time may include generating within 15 minutes or less (e.g., 12 minutes or less, 10 minutes or less, 8 minutes or less, 7 minutes or less, 6 minutes or less, 5 minutes or less, 4 minutes or less, 3 minutes or less, 2 minutes or less, 1minute or less, etc.) of receiving the user request to modify the treatment plan.

75. The last sentence of paragraph [0076] reads:

> [0076] (…) The indication may be provided in real time or near real time, such as within about 5 minutes or about 10 minutes or less.

76. Against the background of the patent in suit that inter alia has the objective to increase the speed at which treatment plans may be completed, it follows from this wording in the description that "in real time" would be understood by the skilled person as within a tight time frame and specifically within 15 minutes or less.

d) Feature 1.6 – determining, in real time, that the requested user modification is within a prede termined thresholds for modifications to the treatment plan

77. As examples of predetermined thresholds, the patent in suit provides e.g. space required for attachments and power ridges or moving teeth without collisions (para. [0013] and claim 2) and tooth movement thresholds and location thresholds for aligner features that relate to clinically unacceptable modifications (paras. [0017] and [0075] and claims 8 and 9).

78. Taking the wording of feature 1.6 ("tresholds for modifications to the treatment plan") and paragraphs [0013], [0017], [0076] and [0077] of the patent description into account, it can be concluded that there does not have to be an exact correspondence between the element

that the user requests to modify and the specific entity that the threshold(s) for modifications refer(s) to. This means that the latter may relate to the general practicability or efficacy of the treatment plan. See for example paragraph [0076]:

> [0076] When the requested modification results in a potentially undesirable treatment, then the systems described herein may return an indication to the display indicating why the treatment may be potentially undesirable. Potentially undesirable treatment may include limitations in manufacturing, impacts on treatment duration (such as increases in treatment duration), requests that contradict best orthodontic treatment practices, or requests that are unlikely to work. For example, if a requested modification is not clinically acceptable, the systems described herein may return an indication to the display that the modification is not clinically acceptable. In some examples, the indication may include a visual indication of the location threshold on a display. (…).

79. This understanding is confirmed by a comparison of the exemplary thresholds mentioned in claims 2, 8 and 9, as well as in paragraphs [0013], [0017], [0056] and [0075], with the exemplary modifications described in the patent specification in paragraphs [0017], [0025], [0045], [0055] and [0073] as well as in claim 10.

80. The "requested user modification" in feature 1.6 and 1.7 and receiving a "user request to modify" in feature 1.5 have to be seen in connection. This requested modification may also include that the user, using 3D controls, drags an attachment and thereby exceeds a warning indicator corresponding to a predetermined threshold, such as a gingival line, which causes the movement to be rejected. In such a situation the movement of the attachment through the 3D controls leads to the receivement of a request for a modification (feature 1.5) for which is determined that it is within a predetermined threshold (feature 1.6). Reference is made to para. [0056] of the patent in suit that provides an embodiment illustrating the invention (underlining added):

> [0056] At 416, the frontend system receives instructions to modify the treatment plan through: (a) 3D controls, (b) text instructions, and/or(c) other IPL-compatible input, such as domain specific or other treatment protocols. In some examples, the frontend system may provide a warning notification or other visual indication that a proposed modification may violate or otherwise exceed certain constraints. For example, FIG. 9 illustrates an example screen 900 of the frontend system displaying a warning indicator 902. Warning indicator 902 maybe, for example, overlaid onto the 3D model to designate locations, such as near the gingival line, which the attachment may not be located. Warning indicator 902 may correspond to constraint thresholds, such as a proximity threshold to the gingival line. In some examples, the proposed modification may be rejected if it exceeds warning indicator 902.

81. In Figure 4A (see under 7), corresponding to this embodiment, the step with refence number 416 as described in paragraph [0056] is named "frontend system receives instructions to modify the treatment plan".

82. The skilled person would understand from this that the "instructions to modify the treatment plan" and "proposed modification" in para. [0056] form a "requested user modification" that subsequently may be rejected if it is determined not being within a predetermined threshold.

e) Feature 1.7. – generating, automatically and in real time when the user requested modification is within the predetermined threshold, a revised treatment plan based on the user requested modification

83. A revised treatment plan is to be generated automatically and in real time based on the user-requested modification. This is to be understood in the sense of entailing a full computer-based implementation. When the requested modification is within the predetermined threshold, the revised treatment plan based on the modification is generated automatically and in real time.

84. Feature 1.7 only deals with the situation where the requested modification is within the predetermined threshold. It does not address the situation in which this condition is not fulfilled. Therefore, claim 1 does not explicitly exclude that, in case of non-compliance of the requested modification with the predetermined threshold, a revised treatment plan is nevertheless generated. Claim 1 does not require that the request is rejected if it does not fall within the predetermined threshold. Such rejection, as well as a possible warning or indication, is only described in the context of exemplary embodiments (see paragraphs [0056], [0058], [0076], [0077] and such rejection or indication is not included in the accompanying Figures 4A-4B (see above under 7).

85. According to feature 1.7, a revised treatment plan is generated based on the user requested modification. Claim 1 thus covers any treatment plan wherein, starting from a scan of the patient's teeth (feature 1.2), an "initial" treatment plan consisting at least of incremental positions of the teeth from an initial to a final position is generated (feature 1.3), a request for a modification of this "initial" treatment plan is made by a user (feature 1.5) for which modification is determined that it is within a predetermined thresholds (feature 1.6) and, when the modification is within the threshold, subsequently re-generated in a revised form based on the requested modification (feature 1.7).

(3) Claim 13: "The method of claim 1, further comprising: outputting instructions for fabricating a plurality of orthodontic appliances based on the modified treatment plan; and/or forming one or more aligners from the modified treatment plan".

86. Claim 13 is not a product claim and therefore cannot be a "product-by-process" claim within the usual meaning of this clause. Any aligner fabricated following all the claimed steps might fall within the terms of Art. 25(c) UPCA, because claim 13 de facto introduces a production step.

V. Infringement

87. Since the Defendants have not (timely) contested that the challenged embodiments infringe the patent in suit, and given the claim interpretation provided above, infringement will be assumed for the purposes of this proceedings for provisional measures.

VI. Validity

88. The Court is of the opinion that, based on the facts and arguments presented by the parties, it is not more likely than not that the patent in suit is not valid.

1. Novelty

a) General principles

89. A technical teaching is new if it differs in at least one of its features from what is known in the art. For lack of novelty to be found, each and every feature of the claimed subject-matter must be derivable directly and unambiguously from one single prior art document (UPC_CFI_252/2023 (CD Munich), Decision of 17 October 2024 – NanoString v Harvard College, Headnote 3; UPC_CFI_315/2023 (CD Paris), Decision of 5 November 2024, mn. 9.1 – NJOY v Juul Labs; see also CoA 25 November 2025, Meril v Edwards). Knowledge that a person skilled in the art only acquires as a result of further deliberation or by consulting further documents or by further use cannot be taken into account for novelty (see UPC_CFI_16/2024 (LD Düsseldorf), Decision of 14 January 2025 – Orthovox v Mammut; UPC_CFI_7/2024 (LD Düsseldorf), Decision of 3 July 2024 – Kaldewei v Bette). The question of novelty must be answered from the vantage point of the notional skilled person, taking into account this person´s common general knowledge at the relevant date (UPC_CFI_100/2024 UPC_CFI_411/2024 (LD Düsseldorf), Decision of 15 January 2026 mn. 129 - Ona v. Google).

b) Case at hand

90. The Defendants contest the novelty over claim 1 of the patent in suit over D1, D2, D3, D4, D5 and D6. At the request of the Court, they have stated that they consider the novelty attack in light of D2 and the novelty attack in light of D6 to be the most promising.

aa) Novelty over D2

91. D2 is published on 13 June 2019 and therefore prior art in the sense of art 54(2) EPC. The applicant of D2 is the Applicant in this case.

92. D2 at least does not directly and unambiguously disclose generating, automatically and in real time, a revised treatment plan based on the user requested modification (feature 1.7).

(1) Disclosure of D2

93. D2 relates to the field of treatment planning for orthodontic treatment using a series of patient-removable appliances to reposition the teeth (para. [0003]) and discloses orthodontic and/or dental treatment planning methods and apparatuses. In paragraphs [0004] and [0005], D2 describes the treatment planning process with its drawbacks in (literally) the same way as paragraphs [0001] and [0002] of the patent in suit. In paragraph [0006] of D2 it is stated that the proposed methods and apparatuses may improve treatment planning, potentially improving the speed and providing greater choices and control to the dental professional (see the comparable para. [0004] of the patent in suit).

94. In order to achieve this improvement, D2 describes that a plurality (a very large number or array) of potential treatment plan variations may be pre-calculated. These pre-calculated treatment plans can be (re)viewed by switching between them in real time or near real time (see e.g. para. [0007] and [0058]).

95. Also disclosed in D2 are a collision detector that determines the magnitude and/or velocity of collisions between teeth (see e.g. para. [0013], [0035], [0036], [0040], [0121]) and a solver that may avoid collisions between teeth (see e.g. para. [0316]).

96. The automated method of creating a plurality of treatment plans according to D2 comprises several steps, including the possibility to modify a treatment plan (see e.g. paras. [0008] and [0012]). With regard to modifications, paragraph [00045] of D2 reads (underlining added):

> [0045] These methods and apparatus may also allow the user to modify any of the treatment plans. Many of the modifications made by the user may include variations of the treatment plans that are already pre-calculated and included in the array of treatment plans, thus the modifications may be made in real time by switching between the different treatment plan variations. The modifications may change one or more properties of the treatment and therefore the treatment plan. If the modifications go beyond the variations included in the array of treatment plans, the user may be notified, and the modified treatment plan may be transmitted back to the remote site for recalculation of the plurality of treatment plans (or the addition of new treatment plans to the array) to incorporate these changes, and the interactive method of forming and/or manufacturing the treatment plan may be continued with the new or enlarged array of treatment plan variations including the modifications requested by the user.

97. From this, the skilled person would understand that D2 discloses two types of modifications. The first type are modifications that include variations of the treatment plans that are already pre-calculated and included in the array of treatment plans. Because of this ("thus"), these modifications may be made in real time by switching between the different treatment plan variations.

98. The second type of modifications are modifications that go beyond the variations included in the array of treatment plans. For these modifications, the skilled person reads in the second part of paragraph [0045] that the user may be notified and that the modified treatment plan may be transmitted back to the remote site for recalculation of the plurality of treatment plans (see also para. [0113]). Here, nothing is mentioned on the time frame within which this recalculation takes place.

(2) No disclosure of feature 1.7

99. In the Court's opinion, with regard to the first type of modifications, D2 does not disclose a method according to claim 1 of the patent in suit. Insofar as these modifications, that include variations of the treatment plans that are already pre-calculated and included in the array of treatment plans, would equate to a request to modify a treatment plan as per feature 1.5, no generation of a revised treatment plan based on the user requested modification takes place, since the variation is already pre-calculated. Thus, feature 1.7. is not disclosed.

100. With regard to the second type of modifications that lead to the re-calculation, the Defendants have not convincingly shown that D2 discloses that this re-calculation (generation) is conducted in real time, as is required according to feature 1.7.

101. For the disclosure in D2 of generating a revised treatment "in real time" according to feature 1.7, the Defendants have referred to the following paragraphs: abstract, [0045], [0084], [0121] and [0196].

102. The Abstract of D2 reads (underlining added):

> Orthodontic and/or dental treatment planning methods and apparatuses. In particular, described herein are methods of generating, a plurality of potential treatment plan variations for the concurrent and interactive view of the treatment plan variations. Each variation may be optimized to best address the user's treatment goals, as well as approximating as closely

> as possible an ideal or target final position. Also described herein are orthodontic and/or dental treatment planning methods and apparatuses that allow a user to form, modify, and select a treatment plan from a plurality of different plans in real time.

103. Since from the disclosure of D2 as a whole, the skilled person would derive that the teaching of D2 primarily regards the array of pre-calculated treatment plan variations as a solution to improve treatment planning, including its speed and greater choices and control, the skilled person would see this abstract in this light and therefore, understand the modifications in real time mentioned in this abstract as the first type of modifications, i.e. the modifications that are already included in the pre-calculated treatment plans. In any case, from its wording, it is not clear to the skilled person that the abstract also relates to re-calculation of revised treatment plans in real time.

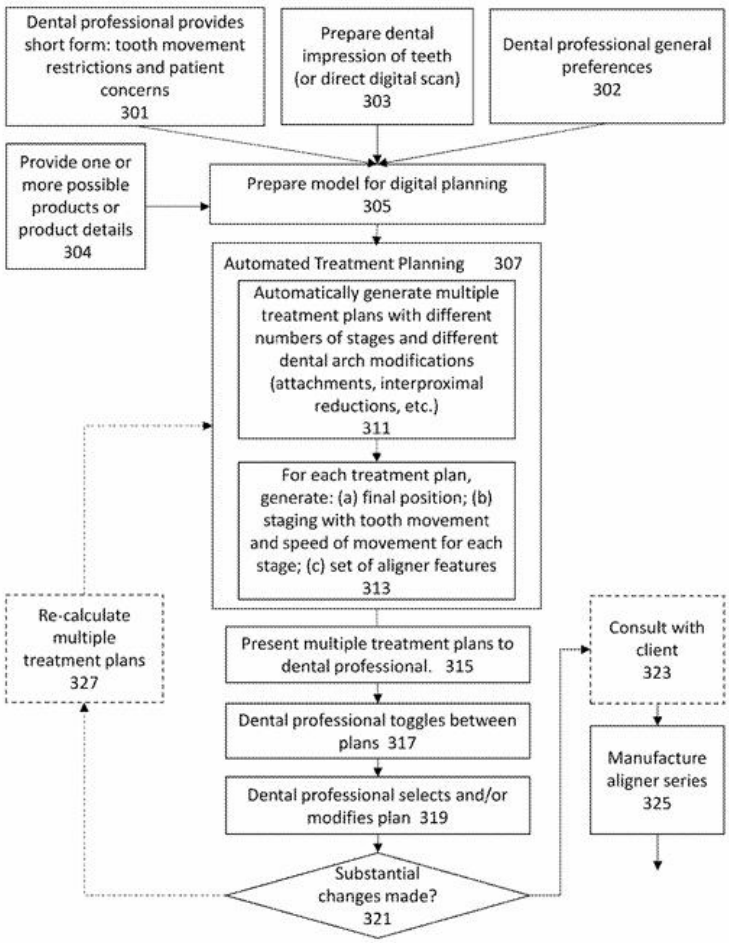
104. In paragraph [0045] of D2, "in real time" is mentioned, but only connected to modifications that include variations that are already pre-calculated (underlining added). Here, the skilled person reads that the fact that modifications can be made in real time, is the result of ("thus") the treatment plans being already pre-calculated:

> [0045] (…) Many of the modifications made by the user may include variations of the treatment plans that are already pre-calculated and included in the array of treatment plans, thus the modifications may be made in real time by switching between the different treatment plan variations. (…)

105. Also in paragraph [0121], "in real time" is disclosed in conjunction with pre-calculated plans. Here, the skilled person reads that the treatment plans that are pre-calculated are displayed in real time for interactive selection and modification (underlining added):

> [0121] FIG. 3 illustrates an example of a method for manufacturing a series of aligners for a patient's teeth in which a plurality of treatment plans specific to the patient's teeth, representing partial treatment plans, having a fixed number of different stages and variations of these fixed number stages are all pre-calculated and included and displayed in real-time to allow the user to interactively select and/or modify a treatment plan for an orthodontic treatment. The method of manufacturing the series of aligners may include an automated method of creating one or more treatment plans or a treatment plan solver configured to perform the automated method of creating one or more treatment plans and/or an automatic collision detection method or a collision detector configured to perform an automatic collision detection method.

106. This is illustrated in Fig. 3, where it is shown that in step 317 the dental professional "toggles" between the multiple treatment plans. That this is done in real time follows from the detailed description relating to this figure (see para. [0027]). The user can select a treatment plan or alternatively modify a plan (319). If this modification exceeds the already pre-calculated treatment plans ("substantial changes made?" (321)), re-calculation takes place (327):



107. Furthermore, the mentioning of "in real time" in paragraph [0196] is connected to already pre-calculated treatment plans, in which case the user can see the options available, "without the need to redo the treatment plan" (underlining added):

> [0196] (…) All possible combinations of the plans are pre-calculated so the user can see, in real time, the options available by changing to a different clinical filter without the need to redo the treatment plan. The user may also modify any of the treatment plans with 3D controls, in which each change made with tools modifies a plan but is configured to keeps the ability to transfer the selected (and modified) treatment plan directly to manufacturing (e.g., without further human intervention).

108. Insofar as the last sentence of this paragraph could be read as (also) directed to modifications that require re-calculation, "in real time" is not mentioned here and, as already noted with regard to claim interpretation, "without further human intervention" (i.e. automatically), does not equate to "in real time" according to the patent in suit.

109. The Defendants also rely on paragraph [0062] of D2. This paragraph sees in particular to the re-calculation of the array of treatment plans based on modifications. In this paragraph, "in real time" is not mentioned in conjunction with this option (underlining added):

> [0062] Any of these methods may include transmitting the one or more treatment plans to the treatment plan optimizing generator (e.g. the remote site where the treatment plan optimizing generator is located) to recalculate the array of treatment plans based on the modifications of the one or more treatment plans.

110. It follows from the foregoing that none of the aforementioned paragraphs of D2 directly and unambiguously disclose "in real time" in conjunction with the re-calculation of a treatment plan following a user requested modification that goes beyond the already pre-generated treatment plans.

111. In response to questions of the Court in the oral hearing, the Defendants have referred to paragraph [0084] of D2 for the disclosure of "in real time" in conjunction with the re-calculation of a revised treatment plan. This paragraph reads (underlining added):

> [0084] In general, the methods and apparatuses described herein provide interactive treatment planning, and may present multiple, full and pre-calculated treatment plans to a user (e.g., dental professional) and allows the user to switch between views of different pre-calculated treatment plans, and to modify the one or more treatment plans. The systems and methods described herein may also allow for the doctor to change final position and re-calculate a new final position real time without sending it to the technician.

112. The skilled person would understand the first sentence of this paragraph as seeing to the pre-calculated treatment plans and modifications that are already included therein. In the second sentence of paragraph [0084], "real time" is mentioned. The word "re-calculate" is used here, but this is connected to "a new final position". The re-calculation of a (revised) treatment plan is not mentioned. Although "final position" is mentioned in conjunction with a treatment plan according to D2 (see e.g. paras. [0004] and [0021]) and the patent in suit (see e.g. para. [0001] and feature 1.3), the treatment plan in both D2 and the patent in suit at least also comprises incremental positions of the patient's teeth (stages) from the initial position to the final position. The skilled person would not read "final position" as unambiguously equating to "the treatment plan". Moreover, this "re-calculate" a new final position could also be seen by the skilled person as a modification that can be made in real time (see feature 1.5). Also from "without sending it to the technician" the skilled person cannot derive which type of modifications are meant, because transmitting to a remote site for re-calculation (see para. [0045] of D2) is not necessarily the same as sending to a technician.

113. The teaching of D2 as a whole would be understood by the skilled person as primarily directed at improving and speeding up treatment planning by pre-calculating a plurality of treatment plan variations that allows for switching between the different pre-calculated treatment plans and selecting or modifying them. "In real time" is connected to this throughout the disclosure D2. Against this background, paragraph [0084] of D2 does not directly and unambiguously disclose that the re-calculation of a revised treatment plan, that is also included in D2 in case a modification goes beyond the already pre-calculated variations, (also) takes place in real time. Therefore, there is no direct and unambiguous disclosure of generating a revised treatment plan based on the user requested modification "in real time" as required by feature 1.7. Already for this reason, claim 1 of the patent in suit is to be considered novel over D2.

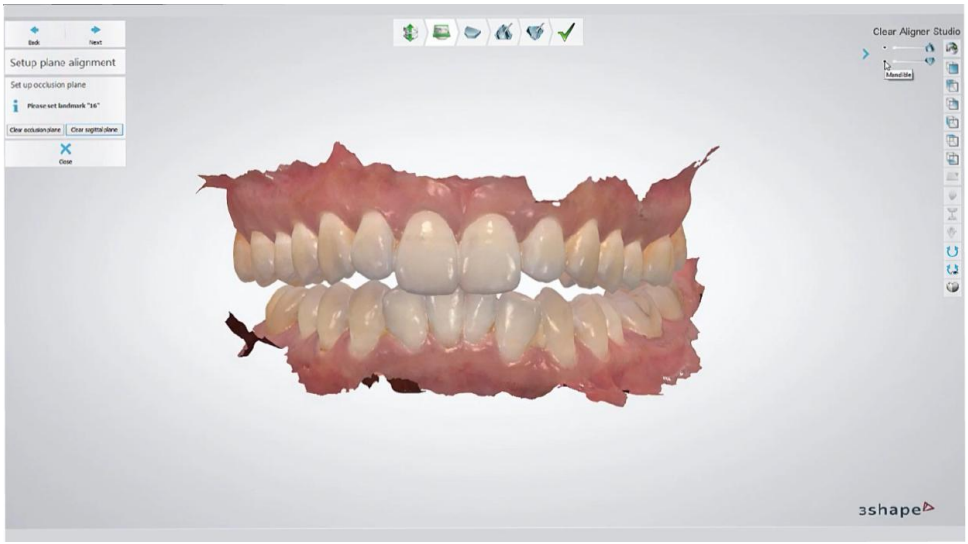
bb) Novelty over D6

114. According to the Defendants, D6 is a video that shows a demonstration of the "Clear Aligner Studio" software, the user manual for which has been submitted as D5. In exhibit D06, consisting of screen shots with a time stamp and an audio transcript added, a date of 9 August 2019 is highlighted on p. 1.

115. D6 at least does not directly and unambiguously disclose generating, automatically and in real time when the user requested modification is within the predetermined threshold, a revised treatment plan based on the user requested modification (feature 1.7).

(1) Disclosure of D6

116. According to exhibit D06, D6 discloses a "workflow" that starts with the first step of creating a "model base" that is illustrated with a 3D display of a dentition (p. 3, time stamp 00:00:05):

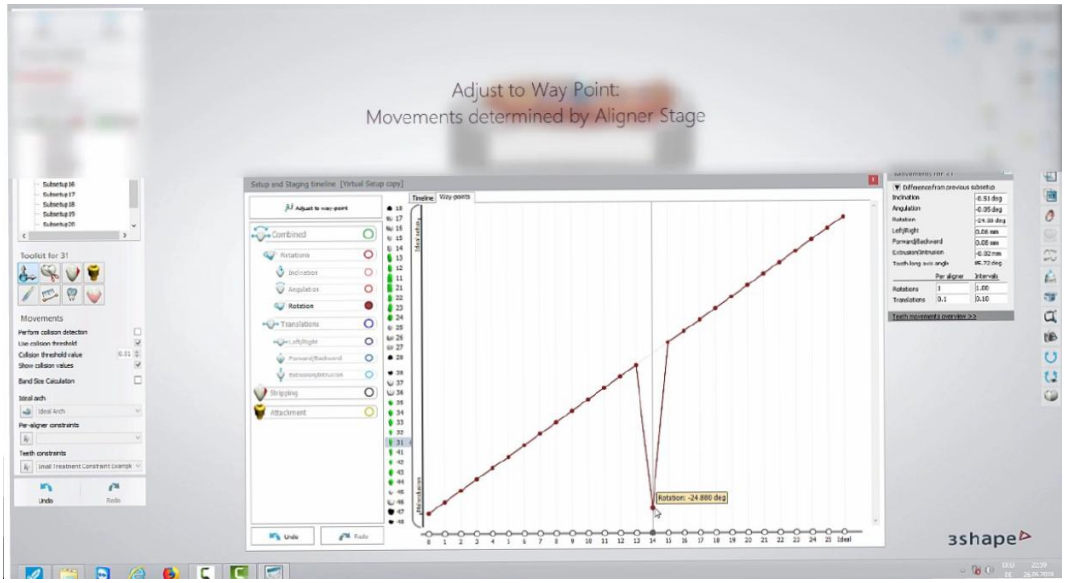


117. An "Ortho Control Panel" is introduced, that includes defining "constraints per tooth" in regards of movement, that can be fine-tuned by defining their "constraints per aligner" (p. 4, time stamp 00:00:59). The control panel also has a feature for an automated placement of attachments (p. 5, time stamp 00:01:23) that allows for the creation of rules for an automated placement (p. 6, time stamp 00.01.49). The software allows the user to "customize your case report", by selecting/choosing a new name for the report (p. 7, time stamp 00:02:13).

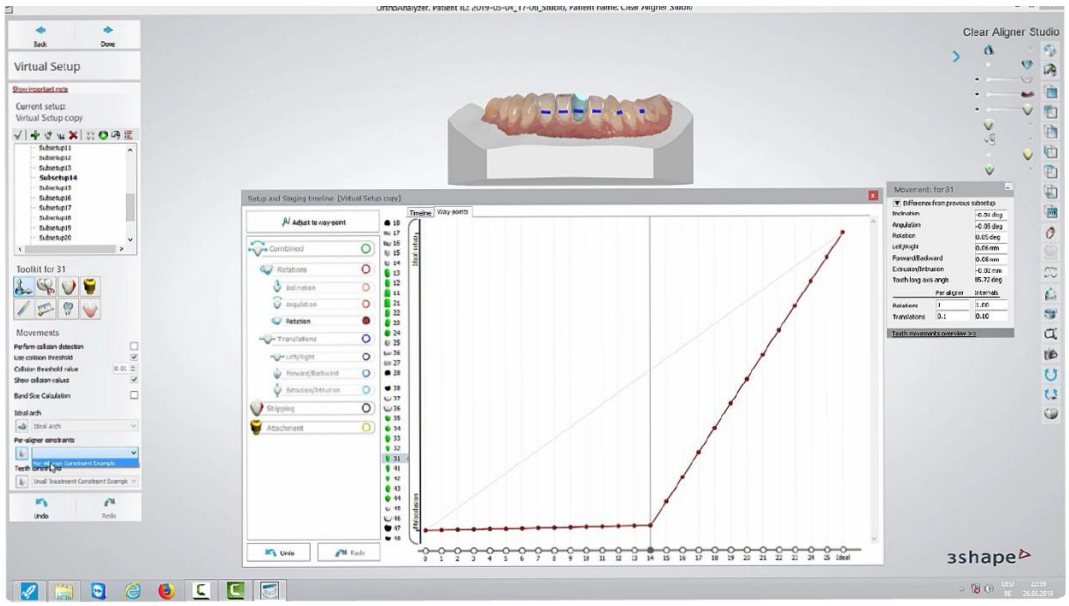
118. After this necessary preparation, the "clear aligner workflow" is started that will guide the user trough the segmentation of the teeth it wishes to move. Once finished with this process, the software will automatically detect the marginal line. If the user clicks on "next", it will be guided through the sculpting process (p. 8, time stamp 00:02:47). Features named "ideal arch" and "reference planes" are described as a tool for a "virtual setup" (p. 9, time stamp 00:04:55, p. 10, time stamp 00:05:32), as well as "automated stripping" or interproximal reduction (p. 12, time stamp 00:05:59), "automated aligner calculation" (p. 13, time stamp 00:06:40) and "automatic attachment placement" (p. 14, time stamp 00:07:18).

119. An icon "setup and staging timeline" is described that opens a window that displays the teeth movements and their distribution over the amount of aligners. A tooth can be selected for display of all individual movements over the course of the treatment (p.15, time stamp 00:07:57). It is explained that initially the distribution of tooth movements is determined by the tooth which needs the most aligners to be moved into its desired position. Clicking on "optimize movements" may reduce the amount of aligners (p. 17, time stamp 00:08:42). The relationship between the ideal setup and the amount of aligners is shown. The user is allowed to select a specific aligner to delay or start a movement. It is illustrated in the screen

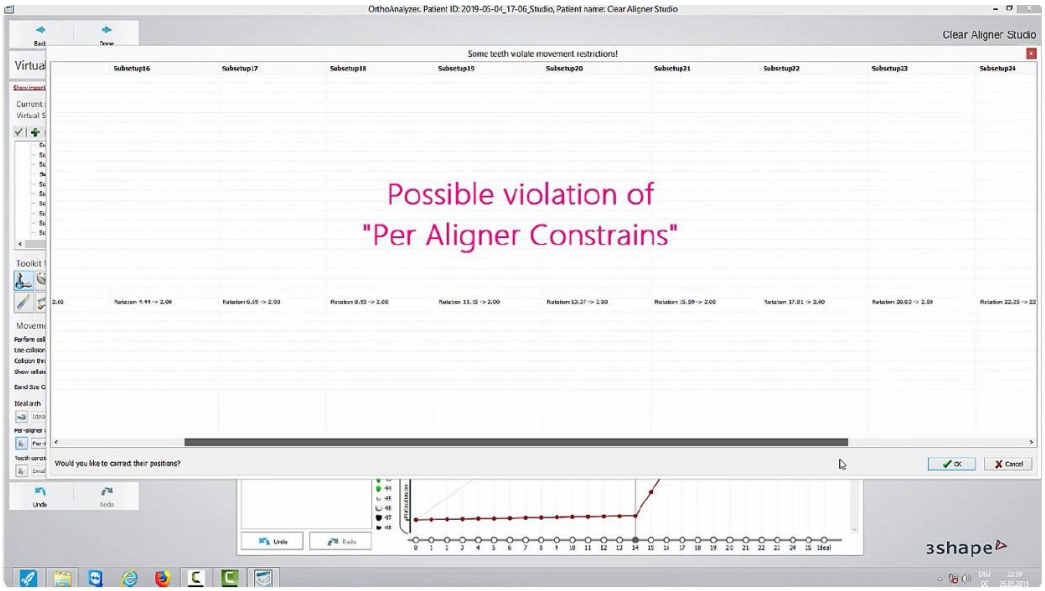
shot that for tooth 31 aligner 14 is selected and the user drags a dot in line down. (p. 18, time stamp 00:09:07):



120. It is explained that this can be necessary in case of for example crowding and rotation, to create space first and then rotate the tooth (p. 19, time stamp 00:09:21). The screen shot shows that the movement of the tooth is starting from aligner 14:



121. It is then explained that this may however leave not enough aligners to perform the full movement of the tooth (p. 20, time stamp 00:09:29). It is also explained that the check of a possible violation of the “per aligner constraints” will show the user if it has to add more aligners. The screen shot shows the text “Possible violation of “Per Aligner Constrains”” (p. 21, time stamp 00:09:24):



122. It is then explained that the last feature is the “automated ID tags” functionality and that, once setups are exported for manufacturing, the user can choose ID tags on each model stage (p. 22, time stamp 00.09.35).

(2) No disclosure of feature 1.7

123. In the opinion of the Court, D6 at least does not disclose the generation, automatically and in real time when the user requested modification is within predetermined threshold, a revised treatment plan based on the user requested modification (feature 1.7).

124. It has been disputed between the parties where in D6, the generation of an “initial” treatment plan (feature 1.3) and a request for a modification to this treatment plan (feature 1.5) is disclosed. For the treatment plan, the Defendants refer to the “aligner calculation” that results in “subsetups” as incremental positions corresponding to individual aligners.

125. For the disclosure of feature 1.5, the Defendants refer firstly to the movement of the target position of a tooth at 00:05:56. It would however not be clear to the skilled person from D6 that this takes place following the generation of the initial treatment plan that the Defendants rely on, at 00.07.18. So there is no disclosure of a modification to a treatment plan as required in feature 1.5.

126. The other possible modification to an initial treatment plan that the Defendants refer to, is a modification to the staging timeline for tooth 31 (see above under mn. 119) by the user using the mouse. Even if this would disclose a user requested modification to an existing “initial” treatment plan, D6 does not disclose generating, automatically and in real time when that user requested modification is within the predetermined threshold, a revised treatment plan based on the user requested modification (feature 1.7).

127. For the determination, in real time, that the user request is within a predetermined threshold for modifications in D6 (feature 1.6), the Defendants refer to the check of a “Possible violation of the Per Aligner Constraints” (see under mn. 121). Here a notification is shown: “Possible violation of “Per Aligner Constraints” and it is explained that the user will be shown if it has to add more aligners.

128. For the generation of a revised treatment plan, the Defendants refer to “setups exported for manufacturing” (see mn. 122 above) and assert that these setups correspond to incremental positions in terms of claim 1. According to the Defendants, from this it can be derived that generating the revised treatment plan based on the user requested modification occurs without any additional user interaction and thus takes place automatically and in real time. The Court does not agree. That at some point in the video a modification is made and at some point “setups exported for manufacturing” are mentioned, is no clear and unambiguous disclosure of the generating, automatically and in real time when the user requested modification is within the predetermined threshold, of a revised treatment plan based on the user requested modification. It is not disclosed in D6 that a treatment plan based on user requested modification, for which it is determined that it is within a threshold, is generated automatically and in real time.

129. With regard to the determination that the modification is within the threshold (“per aligner constraint”) that the Defendants refer to in D6, it is disclosed that a notification of a possible violation of this constraint is shown to the user and that the user will be shown if it has to add more aligners. If the revised treatment plan would be based on this modification, it would not be within the threshold. Therefore, no modification to a treatment plan that is determined to be within a threshold is disclosed in D6 and moreover, no generation, automatically and in real time of any revised treatment plan based on such a modification is disclosed.

130. The Defendants have argued that, according to the Applicant’s interpretation of claim 1, any prior art that prevents a treatment plan from being generated that cannot be implemented - so also D6 - is novelty destroying. This argument has to be rejected, already because, according to the claim interpretation by the Court above, claim 1 does not exclude that, in case of non-compliance of the requested modification with the predetermined threshold, a revised treatment plan is nevertheless generated.

131. Furthermore, the fact that the notification of a possible violation in D6 would allegedly disclose the subject matter of claim 7 (“returning an indication to the display if the user request to modify the treatment plan is outside the predetermined thresholds for modification to the treatment plan”) does not mean that as a result, claim 1, including feature 1.7 is also disclosed, as the Defendants seem to assert. For a novelty destroying disclosure it is required that all features of a claim are disclosed. The possible disclosure of the subject matter of a dependant sub claim cannot repair a lacking disclosure of a feature of the independent claim.

132. At the oral hearing, the Applicant has additionally referred to an “intended” revised treatment plan in D6, not being the “final” revised treatment plan that is showed at the end of the video according to the Defendants. This “intended” revised treatment plan is allegedly shown after the user dragged the dot in the staging timeline for tooth 31 down (see above under 120). Here, it is shown in the timeline that the rotation of tooth 31 will start at aligner 14 instead of aligner 1. Even if this could be seen as a revised treatment plan – and not as a modification to a treatment plan according to feature 1.5 – for this revised treatment plan it is not determined that the modification is within a predetermined threshold (feature 1.6) and it is (thus) not based on a modification that is within the predetermined threshold (feature 1.7). Rather, this determination is being done after the user clicks on the “per aligner constraint” button and a window showing the notification “Possible violation of Per Aligner Constraints” is opened. D6 does not disclose any further information on any possible steps taken after this.

cc) Novelty over D1, D3, D4 and D5

133. Based on the statement by the Defendants that they consider the novelty attacks based on D2 and D6 to be the most promising and based on an assessment of the facts and arguments and proof provided by the parties on D1, D3, D4 and D5, the Court, for the purposes of these proceedings for provisional measures, will assume the latter documents to be further away from the claimed invention than D2 and D6, and considers at least feature 1.7 not disclosed in these documents.

2. Inventive step

a) General principles

134. Pursuant to Art. 56 EPC, an invention shall be considered as involving an inventive step if, having regard to the state of the art, it is not obvious to a person skilled in the art.

135. According to the case law of the Court of Appeal, the approach taken by the Unified Patent Court when establishing inventive step is as follows (see UPC_CoA_464/2024, Decision of 25 November 2025, Headnotes 4 - 13, mn. 128 – 136 – Meril v Edwards; UPC_CoA_528/2024, Decision of 25 November 2025, Headnotes 10 - 22, mn. 122 – 138 – Amgen v Sanofi).

136. It first has to be established what the object of the invention is, i.e. the objective problem. This must be assessed from the perspective of the person skilled in the art, with their common general knowledge, as at the application or priority date (also referred to as the effective date) of the patent. This must be done by establishing what the invention adds to the state of the art, not by looking at the individual features of the claim, but by comparing the claim as a whole in the context of the specification and the drawings, thus also considering the inventive concept underlying the invention (the technical teaching), which must be based on the technical effect(s) that the person skilled in the art, on the basis of the application, understands is (are) achieved with the claimed invention.

137. In order to avoid hindsight, the objective problem should not contain pointers to the claimed solution. The claimed solution is obvious when at the effective date the person skilled in the art, starting from a realistic starting point in the state of the art in the relevant field of technology and wishing to solve the objective problem, would (and not only “could”) have arrived at the claimed solution.

138. The relevant field of technology is the specific field relevant to the objective problem to be solved as well as any field in which the same or similar problem arises and of which the person skilled in the art of the specific field must be expected to be aware.

139. A starting point is realistic if the teaching thereof would have been of interest to a person skilled in the art who, at the effective date, wishes to solve the objective problem. This may for instance be the case if the relevant piece of prior art already discloses several features similar to those relevant to the invention as claimed and/or addresses the same or a similar underlying problem as that of the claimed invention. There can be more than one realistic starting point, and the claimed invention must be inventive starting from each of them.

140. The person skilled in the art has no inventive skills and no imagination and requires a pointer or motivation that, starting from a realistic starting point, directs them to implement a next step in the direction of the claimed invention. As a general rule, a claimed solution must be considered not inventive/obvious when the person skilled in the art would take the next

step, prompted by the pointer or as a matter of routine, and arrive at the claimed invention.

141. For an inventive step to be present, it is not necessary to show improvement of the technical teaching as defined by the patent claims over the prior art. Inventive step may also be found if the patent claims disclose a non-obvious alternative to solutions known in the prior art.

b) Case at hand

142. Regarding inventive step of claim 1 of the patent in suit, the Defendant stated that if the references cited above were not considered to be novelty destroying, they would at least render the alleged invention claimed by the patent in suit obvious because automating a known manual procedure does not constitute a patentable invention. In this context, the Defendants also refer to the treatment planning process according to the prior art described in (the background section of) the patent in suit. Furthermore, the patent in suit fails to disclose how this is actually achieved. If the skilled person could have realized this based on common general knowledge, the patent would also be obvious, according to the Defendants. If this were not the case, there would be a lack of enabling disclosure.

143. The Defendants have further stated that the patent in suit lacks inventive step over any of the documents D1 to D6 in combination with "the expert knowledge". Also here, it is stated that as it is not disclosed how the method can be executed, claim 1 either does not enable the skilled person to carry out the invention, or it does not rely on an inventive step. Furthermore, it has stated that the patent lacks inventive step over D7 in combination D8.

144. At the request of the Court, the Defendants have stated that they consider the inventive step attack in light of D7 combined with D8 the most promising.

aa) Inventive step over D7 in combination with D8

145. D7 in combination with D8 does not render claim 1 obvious, already because both documents do not disclose features 1.5, 1.6, 1.7 (and 1.8). Even if the skilled person would combine D7 with D8, it would not arrive at the subject-matter of claim 1.

(1) Disclosure of D7

146. D7 is a European patent titled "Method for fabricating a plurality of dental incremental position adjustment appliances" on the name of the Applicant in this case. The date of publication and mention of the grant of D7 is 25 May 2011.

147. D7 relates to the field of orthodontics, more particularly to a method for fabricating a plurality of dental incremental position adjustment appliances (para. [0001]). D7 explains that repositioning teeth is accomplished conventionally by "braces", a variety of appliances such as brackets, arch wires, ligatures and O-rings. Attaching the appliances to a patient's teeth is tedious and time consuming and requires many meetings with the treating orthodontist. This limits an orthodontist's patient capacity and makes orthodontic treatment quite expensive. Moreover, from the patient's perspective, the use of braces is unsightly, uncomfortable, presents a risk of infection, and makes dental hygiene processes difficult (paras. [0002] and [0007]).

148. D7 states that for these reasons, it would be desirable to provide alternative methods and systems for repositioning teeth that should be economical and in particular should reduce the amount of time required by the orthodontist in planning and overseeing each individual

patient. The methods and systems should also be more acceptable to the patient, in particular being less visible, less uncomfortable, less prone to infection, and more compatible with daily dental hygiene (para. [0008]).

149. To accomplish this, D7 provides a method for fabricating a plurality of dental increment position adjustment appliances, in which repositioning is accomplished with a series of appliances configured to receive the teeth in a cavity and incrementally reposition individual teeth in a series of successive steps. The successive use of a number of such appliances permits each appliance to be configured to move individual teeth in small increments (para. [0014]). The individual appliances will preferably comprise a polymeric shell having the teeth-receiving cavity formed therein, typically by molding (para. [0015]). D7 thus refers to treatment with aligners as an improvement over bracket and wires.

150. D7 discloses producing a digital data set representing a final tooth arrangement by providing an initial data set representing an initial tooth arrangement, and presenting a visual image based on the initial data set. The visual image is then manipulated to reposition individual teeth in the visual image. A final digital data set is then produced which represents the final tooth arrangement with repositioned teeth as observed in the visual image (para. [0022]).

151. The initial digital data set may be provided by digitizing X-ray images, images produced by computer-aided tomography (CAT scans), images produced by magnetic resonance imaging (MRI), and the like. Preferably, the images will be three-dimensional images and usually, the initial digital data set is provided by producing a plaster cast of the patient's teeth that may then be scanned to produce digital representation of the plaster cast of the patient's teeth (para. [0022]).

152. D7 discloses that, once the digital data set is acquired, an image can be presented and manipulated on a suitable computer system equipped with computer-aided design software. Once the individual teeth have been repositioned, a final digital data set representing the desired final tooth arrangement will be generated and stored (para. [0024]).

153. D7 also discloses producing a plurality of digital data sets representing a series of discrete tooth arrangements progressing from an initial tooth arrangement to a final tooth arrangement, by providing a digital data set representing an initial tooth arrangement and a digital data set representing a final tooth arrangement. The plurality of successive digital data sets are then produced based on the initial digital data set and the final digital data set. Usually, the successive digital data sets are produced by determining positional differences between selected individual teeth in the initial data set and in the final data set and interpolating said differences (para. [0026]).

154. The parties seem to agree that D7 discloses generating a digital model of a final position of a patient's teeth from a scan of the patient's teeth in an initial position of the patient's teeth (feature 1.2), generating a treatment plan comprising incremental positions of the patient's teeth to move the patient's teeth from the initial position towards the final position (feature 1.3) and providing a three-dimensional representation of the treatment plan to a display (feature 1.4). The parties however dispute over whether D7 also discloses modifications to a treatment plan, for which it is determined that the requested modification is within a threshold and in that case generating a revised treatment plan based on the modification (features 1.5 – 1.7).

155. For modifications, the Defendants refer to paragraph [0024] of D7 and the therein described image manipulation, that can be performed by the user manually, with assistance from rules and algorithms or in a fully automatic manner. The skilled person will read paragraph [0024] in conjunction with paragraph [0022], that inter alia reads (underlining added):

> [0022] In yet another aspect, methods are provided for producing a digital data set representing a final tooth arrangement. The methods comprise providing an initial data set representing an initial tooth arrangement, and presenting a visual image based on the initial data set. The visual image is then manipulated to reposition individual teeth in the visual image. A final digital data set is then produced which represents the final tooth arrangement with repositioned teeth as observed in the visual image. (…)

156. From this the skilled person would understand that in D7 (the digital data set representing) the initial tooth position is used and manipulated to create (the digital data set representing) the final tooth position. From the wording of paragraph [0024], the skilled person would thus understand that the image manipulation – for which it is explained in this paragraph that it can be done subjectively, assisted with rules and algorithms or in a fully automatic manner – sees to the manipulation of the initial digital data set in order to generate the final digital data set (underlining added):

> [0024] Once the digital data set is acquired, an image can be presented and manipulated on a suitable computer system equipped with computer-aided design software, as described in greater detail below. The image manipulation will usually comprise defining boundaries about at least some of the individual teeth, and causing the images of the teeth to be moved relative to the jaw and other teeth by manipulation of the image via the computer. Methods are also provided for detecting cusp information for the teeth. The image manipulation can be done entirely subjectively, i.e. the user may simply reposition teeth in an aesthetically and/or therapeutically desired manner based on observation of the image alone. Alternatively, the computer system could be provided with rules and algorithms which assist the user in repositioning the teeth. In some instances, it will be possible to provide rules and algorithms which reposition the teeth in a fully automatic manner, i.e. without user intervention. Once the individual teeth have been repositioned, a final digital data set representing the desired final tooth arrangement will be generated and stored.

157. In the teaching of D7, this generated final digital data set will then, together with the initial data set, be used to produce a plurality of successive digital data sets representing a series of discrete tooth arrangements progressing from the initial tooth arrangement to the final tooth arrangement (incremental positions, in the wording of the patent in suit) (see para. [0026] of D7). It follows from this that the image manipulation in para. [0024] will be understood by the skilled person as being part of the generation of a(n) (initial) treatment plan, comprising incremental positions of the patient's teeth to move the patient's teeth from the initial position towards the final position (feature 1.3). This means that this image manipulation in para. [0024] cannot be seen as a clear and unambiguous disclosure of a *modification* to an already generated treatment plan.

158. The same applies to the paragraph the Defendants rely on for a predetermined threshold in D7 ("collision detection algorithm"). This paragraph [0066] reads (underlining added):

> [0066] The preferred method for creating the FDDS [final digital data set, addition by the Court] involves moving the teeth in a specified sequence. First, the centers of each of the teeth are aligned to a standard arch. Then, the teeth are rotated until their roots are in the proper vertical position. Next, the teeth are rotated around their vertical axis into the proper orientation. The teeth are then observed from the side, and translated vertically into their

> proper vertical position. Finally, the two arches are placed together, and the teeth moved slightly to ensure that the upper and lower arches properly mesh together. The meshing of the upper and lower arches together is visualized using the collision detection algorithm to highlight the contacting points of the teeth in red.

159. Here, the skilled person reads that for *creating* the final digital data set, a collision detection algorithm can be used. In this stage, the final tooth position is thus being created. Since the treatment plan comprises incremental positions of the teeth to move from the initial position towards the final position, it follows that no treatment plan has been generated yet.

160. The Defendants have further referred to paragraph [0071] of D7 that reads as follows:

> [0071] Treatment planning is extremely flexible in defining the movement of teeth and other components. The user may change the number of treatment stages, as well as individually control the path and speed of components.

161. Against the background of the teaching of D7 as a whole, this mere paragraph mentioning a change in number of treatment stages, does not provide the skilled person with a direct and unambiguous disclosure of a requested modification to a treatment plan according to feature 1.5 of the patent in suit. Moreover, it is not disclosed that a request for a modification is received in real time, that it is determined in real time that the requested user modification is within a predetermined thresholds for modifications to the treatment plan and that, when the user requested modification is within the predetermined threshold, a revised treatment plan based on the user requested modification is generated automatically and in real time.

162. It follows from the foregoing that D7 does not disclose features 1.5 – 1.7 (and consequently, feature 1.8).

163. The Defendants have stated that the skilled person would have a motivation to combine the teachings of D7 and D8 and would have arrived at the subject matter of claim 1 without using inventive skills.

164. Even if it would be left aside that the Defendants did not apply the above-mentioned approach by the Court of Appeal for establishing (lack of) inventive step (nor any other objective approach), the subject matter of claim 1 is not obvious in the light of the disclosures of D7 in combination with D8, already for the following reasons.

(2) Disclosure of D8

165. D8 is a European patent on the name of Ormco corporation titled: “Software and methods for dental treatment planning”. The date of publication and mention of the grant of D8 is 28 February 2007.

166. D8 relates to the field of orthodontics and, more particularly, to computer-automated development of an orthodontic treatment plan and appliance (para. [0002]). D8 describes the drawbacks of orthodontic procedures (paras. [0006] – [0009]) for, for example, braces/brackets. In paragraph [0010], it is described that one problem is that current orthodontic products are designed and manufactured to average anatomy and orthodontists have to modify the designs for treatment of the patient, initially and during the course of treatment. Thus, the treatment of the patient is a manual feedback system in which the orthodontist monitors the progress of the patient’s treatment and then readjusts the appliance. As a result, the patient may be subjected to treatment over a period that is longer than would

be necessary and the time required of the orthodontist for implementation of the treatment may be several times greater. Thus, the orthodontist is able to treat fewer patients and the costs are increased.

167. In order to address this and other problems, according to paragraph [0023] D8 discloses a software-modelling tool capable of manipulating the digital images of the teeth from their original position as digitized and scanned to an optimal position. The tool allows the treating orthodontist to develop a treatment plan based on evaluating tooth movements in the modelling tool.

168. In paragraph [0024], it is stated that the software modelling tool assists the orthodontist in manipulating he tooth positions by allowing him to adjust tooth positions in several ways and to review a simulated representation of the occlusal points with the teeth in their current and new positions to assist in developing the treatment plan.

169. Paragraph [0025] of D8 explains that the software modelling tool may also assist the orthodontist by allowing him to add notations to teeth as part of the treatment process. The software modelling tool may indicate to the orthodontist, which teeth have moved from their original position. It allows the orthodontist to undo and redo tooth movements as the orthodontist is developing the treatment plan.

170. From this, the skilled person would understand that D8 is aimed at providing – in contrast to the manual feedback system of monitoring and readjusting during the course of the treatment – a software-modelling tool to manipulate digital images of the teeth from their original position as digitized and scanned to an optimal position and therewith develop a treatment plan (beforehand).

171. As a result, the skilled person would understand the changes described in D8 as changes being made to the teeth from their original position to an optimal position. This also follows from the wording of paragraph [0036] where the Defendants rely on for the check in D8 of modifications requested by the user with a predetermined threshold. See paragraph [0036] (underling added):

> [0036] The control points 67, 68 may be moved in horizontal and/or vertical directions. Preset limits bound the distance that a control point 67, 68 may be moved. As the control points 67, 68 are moved, the updated tooth to tooth lines 64 and distance measurements are displayed along with the distance that the two teeth have moved relative to their the original position. The original curve 62' is also continuously displayed in an alternate color allowing the user to see the deviations made from the original position as the control points 67, 68 are moved. Control point movement may be set so that corresponding control points 67, 68 follow the same but mirror image of their counterpart being moved in order to make symmetrical adjustments. Alternatively, the control points 67, 68 may be independent of one another for unsymmetrical adjustments.

172. The Defendants further rely on paragraph [0045], that reads:

> [0045] (…) Holding down the left mouse key allows the user to drag the arrow in the direction of the mouse movement. This in turn moves the tooth. As the arrow and the tooth are being moved, the numerical value of the relative movement for the degree of freedom is being updated in real time. Predetermined limits bound the movements for each of the degrees of freedom. When the limit for the movement is reached, the movement stops and the user is warned that the operation would exceed the maximum allowed limit. (…).

173. Even if it would be assumed that D8 discloses determining, in real time, that the *movement* of a tooth is within a predetermined threshold, the skilled person, reading D8 as a whole, would understand that this is a movement of a tooth conducted in order to arrive at an optional (final) position of the teeth in order to develop a treatment plan (see para. [0023] of D8). D8 thus does not disclose determining that a requested user *modification* to a treatment plan is within a predetermined thresholds for modifications to the treatment plan (features 1.5 and 1.6) and moreover, does not disclose generating, automatically and in real time when the user requested modification is within the predetermined threshold, a revised treatment plan based on the user requested modification (feature 1.7).

174. Already from this it follows that, since both documents do not disclose features 1.5, 1.6, 1.7 (and 1.8), even if the skilled person would combine D7 with D8, it would not arrive at the subject-matter of claim 1.

bb) Inventive step claim 1 over D1-D2 and common general knowledge/automation of known steps

175. The Defendants have identified the inventive step attack based on D7 in combination with D8 to be the most promising. As follows from the above-mentioned approach by the CoA for establishing lack of inventive step, there can be more than one realistic starting point. It however also follows from this approach that several steps have to be taken in order establish this lack of inventive step. With regard to the other inventive step attacks, the Defendants have not carried out a proper assessment of whether the skilled person, starting from a *specific* realistic starting point, wishing to solve an objective problem, would (and not only "could") have arrived at the claimed solution, i.e. would take the next step, prompted by a pointer or as a matter of routine (e.g. by automation), and arrive at the claimed invention. The Court for these reasons will, based on the facts and arguments provided by the parties and for the purposes of these proceedings for provisional measures, assume that the further inventive steps attacks by the Defendants do also not render claim 1 obvious.

3. Sufficiency of disclosure

a) General principles

176. Sufficiency has to be examined on the basis of the patent as a whole, thus on the basis of the claims, description and drawings, from the perspective of the skilled person with his common general knowledge at the filing or priority date. The test to be applied is whether the skilled person is able to reproduce the claimed subject matter on the basis of the patent without any inventive effort and without undue burden. An invention is sufficiently disclosed if the patent specification shows the skilled person at least one way – and in case of functional features: one technical concept – of performing the claimed invention. Where a claim contains one or more functional features, it is not required that the disclosure includes specific instructions as to how each and every conceivable embodiment within the functional definition(s) should be obtained. A fair protection requires that variants of specifically disclosed embodiments that are equally suitable to achieve the same effect, which could not have been envisaged without the invention, should also be protected by the claim. Consequently, any non-availability of some embodiments of a functionally defined claim is immaterial to sufficiency, as long as the skilled person through the disclosure is able to obtain suitable embodiments within the scope of the claim. The burden of presentation and proof lies with the party invoking invalidity of the patent (UPC_CoA_528/2024, UPC_CoA_529/2024, Decision of 25 November 2025, mn. 105 - 108, Amgen v. Sanofi).

b) case at hand

aa) Sufficiency claim 1

177. Insofar as the Defendants have raised a sufficiency objection to claim 1, they have not provided any substantiation or proof for this. The mere fact that the patent does not disclose how steps of claim 1 can be carried out automatically (and in real time) is no sufficient substantiation. Without any proof of the contrary, it has to be assumed that the skilled person relevant to the patent in suit, being a software engineer with a background in orthodontics and experience in the field of orthodontic treatment planning software for clear aligner therapy, using its common general knowledge, would be able to technically carry out the invention in claim 1 without any inventive effort or undue burden.

bb Sufficiency claim 15

178. The system of claim 15 comprises processors and memories to carry out the method of claim 1 to 12, thus to carry out a method for automated management of clinical modifications to a treatment plan for orthodontically treating teeth comprising the steps in that claim(s). That processors, memories and treatment plans do not *actually* treat teeth, as the Defendants have argued, does not mean that claim 15 is not sufficiently disclosed. The Defendants have not substantiated and proven that the skilled person – a software engineer with a background in orthodontics and experience in the field of orthodontic treatment planning software for clear aligner therapy – using its common general knowledge, would not be able to technically carry out the invention in claim 15 without any inventive effort or undue burden and therewith come to orthodontically treating teeth. As far as the Defendant's objection must be seen as an objection to the clarity of claim 15, such an objection cannot be raised against an already granted claim (Art. 138 (1) EPC).

VII. Dependant claims

179. The Applicant bases its Application for provisional measures on claims 1, 13 and 15 and additionally refers to sub-claims 3, 5, 7, 8, 9, 10 and 14 in the form of "in particular of"-requests. It has done so from the outset. At the request of the Court, the Applicant has stated that, in the event that the Court considers claim 1 to be more likely than not invalid, the combination it wishes to fall back to is claim 1 + sub-claim 9, more specifically the first option in that claim.

180. As a result of claim 1 being assumed not more likely invalid, the question whether the other sub-claims are valid and whether they can be relied on in these proceedings for provisional measures does not have to be answered. Furthermore, other than the Defendants have argued, the mere fact that the Applicant has relied on combinations of claim 1 with sub-claims, does not lead to the invalidity of claim 1 being more likely than not.

VIII. Balance of interests

a) General principles

181. Pursuant to Art. 62(2) UPCA and R. 211.3 RoP, the Court shall in the exercise of its discretion weigh up the interests of the parties and, in particular, take into account the potential harm for either of the parties resulting from the granting or the refusal of the injunction.

182. The Court must also take the time factor into account. In particular, it must consider whether to await proceedings on the merits, or whether provisional measures are necessary

(UPC_CoA_540/2024, Order of 24 February 2025, mn. 19 – Biolitec v Light Guide; UPC_CoA_768/2024, Order of 30 April 2025 – Insulet Corporation v EOFLow; UPC_CFI_213/2025 (LD Düsseldorf), Order of 10 July 2025, mn. 104 – Aesculap v. Shanghai International Holding).

183. Provisional measures are, for example, necessary, if a delay would cause irreparable damage to the patent proprietor. However, such damage is not a necessary prerequisite for ordering provisional measures (UPC_CoA_182/2024, Order of 25 September 2024, mn. 237 – Mammut v Ortovox; UPC_CoA_540/2024, Order of 24 February 2025, mn. 21 – Biolitec v Light Guide; UPC_CoA_768/2024, Order of 30 April 2025, mn. 103 – Insulet Corporation v EOFlow; 15 UPC_CFI_213/2025 (LD Düsseldorf), Order of 10 July 2025, mn. 105 – Aesculap v. Shanghai International Holding).

184. The need for provisional measures may arise from direct competition between the challenged embodiment and the patent proprietor's product (UPC_CoA_540/2024, order of 24 February 2025, mn. 26 – Biolitec v Light Guide). In such situations, provisional measures may be justified if they are necessary to maintain the status quo prior to the alleged infringement until a decision is taken on the merits (UPC_CFI_182/2024, Order of 25 September 2024, mn. 238 – Mammut v Ortovox; UPC_CoA_540/2024, Order of 24 February 2025, mn. 28 – Biolitec v Light Guide; UPC_CFI_213/2025 (LD Düsseldorf), Order of 10 July 2025, mn. 106 – Aesculap v. Shanghai International Holding; UPC_CFI_387/2025 (LD Hamburg), order of 14 August 2025, mn. 136 – Dyson v. Dreame International).

185. The need for the ordering of provisional measures may also arise from a change in the market situation from one in which only one product is available to one in which two competing products are on the market. Such a transition may lead not only to price pressure but also to lasting price erosion (UPC_CoA_523/2024, Order of 3 March 2024, mn. 93 – Sumi v Syngenta; UPC_CoA_768/2024, Order of 30 April 2025, mn. 104 – Insulet v EOFlow; UPC_CFI_213/2025 (LD Düsseldorf), Order of 10 July 2025, mn. 106 – Aesculap v. Shanghai International Holding; UPC_CFI_712/2025 (LD Düsseldorf), Order of 5 December 2025, mn. 361 – Roche v Menarini).

186. The necessity of provisional measures may also arise from the difficulty to switch from one solution to another in a field of practice, both in terms of technical implementation and in terms of the necessary approval procedures (UPC_CoA_768/2024, order of 30 April 2025, mn. 108 – Insulet v EOFlow).

187. When weighing up the interests, the Court takes into account any unreasonable delay in applying for provisional measures, as set out in R. 211.4 RoP in conjunction with R. 209.1(b) RoP.

b) Case at hand

1. Unreasonable delay

188. The Defendants have not alleged that any unreasonable delay is associated with the Applicant's applying for provisional measures. Furthermore, the challenged embodiment has been on the market since May 2025. The patent has been granted on 23 July 2025 and the Application has been made on 15 August 2025. It follows from this that unreasonable delay is not an issue.

2. Necessity of provisional measures

189. Based on the above stated general principles, the weighing of interests in the present case is in favour of the Applicant.

190. The parties are direct competitors in the field of orthodontic treatment with clear aligners. Both their aligner systems and their treatment planning software are similar. The parties, however, are not the only provider in the relevant market that offers similar aligner systems and treatment planning software.

191. The Applicant has brought forward that its software has been a unique selling point so far. Should the Defendants be allowed to offer a similar software, this would have a lasting negative impact on the Applicant's market position. In the field of orthodontic treatment with aligners, clinicians typically once choose a provider they want to work with and then adhere to this decision. This means that a clinician who decides to use the Defendants' aligner system and treatment planning software will generally use this system for all of his current and future patients. The reason for this is not only that the clinician receives special training to use the treatment planning platform and the specific aligners of the provider, but also that they will set up the customised marketing for their practice and promote the cooperation. After that, it is unlikely that the clinician will switch to another system. In addition, once treatment of a patient has begun, the clinician will not change to another aligner system for this treatment. As treatments usually last a year or longer, the clinician is bound to the manufacturer at least for this time. Moreover, the clinician will not use different systems for different patients, so that their decision in favour of one system is usually final. If the Defendants were allowed to offer a similar treatment platform with the same innovative features, there would be a high risk that clinicians would now choose to cooperate with the Defendants and would thus be lost for the Applicant forever. The Applicant would not be able to regain this market position even if the Defendants were later prohibited from offering the challenged embodiments, as the clinicians would have already opted for the Defendants and started treatment of patients, and it is highly unlikely that they would switch to the Applicant, still according to the Applicant.

192. The Applicant further submits that its interests outweigh those of the Defendants, due to the high risk of damages, in particular in the form of loss of market share that could not be compensated. On the other hand, according to the Applicant, the Defendants would only be restricted in their sales activities to a very limited extent, as they could still offer an older version of their iOrtho software without the 'Live Now' feature and manufacture aligners resulting from treatment planning not using this feature. As the Defendants only recently started to market this new software feature, the impact on their business would not be significant. There are several other providers of clear aligner systems on the European market, which have a business without infringing the patent in suit, according to the Applicant.

193. The Defendants submit that there is no imminent threat of irreparable damage to the Applicant. The Defendants agree that clinicians typically choose a provider for clear aligners once and then adhere to this decision. They however argue that the factors weighing in to such a decision are manifold and mainly based on the quality of the aligners themselves, the variability of options they can offer to their patients as well as delivery times and pricing structures. According to the Defendants, the Applicant has not substantiated and proven the impact of the availability of the 'Live Now' feature on its market share. While the treatment planning software is also relevant factor, clinicians are hesitant to switch their provider and will rarely change their provider because a competitor's software offers a single feature that

the software they currently use does not (yet) provide. This means that the relevant market would only comprise clinicians currently looking for a (new) provider Hence, the Applicant's assertion that waiting for the outcome of main proceedings would have a lasting negative impact on their market position is not only unsubstantiated but also incorrect, according to the Defendants.

194. The Defendants further submit that it seems more probable that clinicians would switch providers if a feature they had become accustomed to and relied on in their daily work was removed from their treatment planning software, such as the Applicant's 'Live Now' feature. The Applicant's argument that customers once lost are difficult to regain applies equally to the Defendants, so that the potential damage suffered by the Defendants in case the preliminary measures are later revoked is an important factor to be considered by the Court in its weighing up of interests.

195. The Defendants further argue that another important factor weighing against requested the provisional measures is that they did not infringe any rights of the Applicant when the 'Live Now' feature was launched in version 5.2 of the Defendants' iOrtho software, released in May 2025. The patent in suit was granted in July 2025. While it is undisputed that intellectual property rights must be observed once they are granted (insofar as they are materially valid), there is no obligation to actively monitor the patent register for patent applications that may be granted in the future and to pre-emptively comply with what is claimed in such applications, according to the Defendants.

196. The Defendants also pointed out that the Applicant neither allowed a reasonable period of time for the Defendants to become aware of the grant of the patent, nor did it notify the Defendants of the patent and the alleged infringement before filing the Application. The Defendants conclude that the true motive of the Applicant in seeking provisional measures is to alter the status quo that existed in the market before the patent came into force.

197. When weighing up the interests, the Court takes into account the current assumption of the validity and infringement of the patent in suit and the potential damage incurred to the Applicant until a decision on the merits would be taken. This justifies the issuing of a provisional order.

198. Although the patent in suit was granted in July 2025, after the release of the 'Live Now' feature by the Defendants in May 2025, the Applicant has been on the market with its treatment planning software feature according to the patent since 2022. The two months during which the Defendants have been on the market with its software feature does not amount to a 'status quo' that should be protected over the much longer period in which the Applicant has been on the market with its own software variant before that. The Court in particular takes into account the specific market situation for clear aligners, in which the choice of a clinician for a supplier, as has been explained by the parties, can and will not be changed easily. This leads to the assumption that allowing the Defendants to stay on the market after the grant of the patent in suit until a decision on the merits, will result in a situation in the market that cannot easily be reversed and that can have a lasting effect on the Applicant's market share. The Court hereby also takes into account the significant position of the Defendants in the market of providing clear aligners with accompanying treatment planning system that the Applicant has described. The interest of the Applicant to avoid this as much as possible, weighs up to the interest of the Defendants to be able to continue the recent offering of the new feature in their treatment planning software that form the challenged embodiment. This is even more so because the Defendants can still use the software without

the ‘Live Now’ feature that they have offered to their clients until May 2025 and provide aligners fabricated accordingly. Going back to this situation does not cause any irreparable or severe harm to the Defendants.

IX. Liability of Defendant 3

199. With regard to Defendant 3, the Applicant has stated that it is the sole shareholder of Defendants 2, 4 and 5, meaning that it directly controls and supports these companies in their offering and distribution of the infringing products, so that their infringing actions can be attributed to it. The Applicant submits that the Defendants have a “commercial relationship”, which does not only refer to a business relationship but necessarily includes a financial relationship such as financial support and/or financial transactions within the group of companies and results in Defendant 3 being liable for infringement.

200. The Defendants have argued that the liability of each individual Defendant cannot be assumed simply because they belong to the same group of companies. Defendant 3 is no "infringer" in the sense of Art. 62(1) UPCA. It is not engaged in any activities referred to in Article 25 and 26 UPCA. In fact, Defendant 3 is a holding company that is not involved in any operational business. Its sole purpose is to act as a financial holding for other European companies, as evidenced by the business register excerpt. The Defendants further submit that liability of a holding for acts of its subsidiaries cannot be presumed solely based on the corporate structure, but only when it can be established that the holding company had positive knowledge of the patent infringement including its unlawfulness. Since the Applicant submitted nothing suggesting that Defendant 3 was aware of the alleged infringement by its subsidiaries, the Application must be rejected with respect to Defendant 3, according to the Defendants.

201. As follows from the arguments of both parties, Defendant 3 is not itself involved in the allegedly infringing activities. The Court of Appeal has ruled that an "infringer" within the meaning of Art. 63 UPCA in conjunction with Art. 25 UPCA is also someone who does not himself carry out the acts referred to in Art. 25 UPCA, but to whom the acts of a third party are attributable because it is an instigator, accomplice or accessory. Who is an instigator, accomplice or accessory in this sense is determined on the basis of an autonomous interpretation of Article 63 UPC Agreement and Article 25 UPC Agreement (UPC_CoA_534/2024, UPC_CoA_683/2024, UPC_CoA_19/2025, Decision of 3 October 2025, mn. 180 – Belkin v Philips).

202. The Court of Appeal has already addressed the liability of a managing director. It ruled that the mere position of a managing director does not make him an accomplice or accessory to a patent infringement by the company. The managing director can only be held liable if the contested action goes beyond his typical professional duties as managing director. This applies in particular in cases where he deliberately uses the company to commit patent infringements. This is also the case if the managing director knows that the company is committing a patent infringement and - although it is possible and reasonable for him to do so - does not take action to stop the patent infringement. Knowledge of the patent infringement does not only require that the managing director is aware of the circumstances giving rise to the patent infringement. Rather, as with any accomplice, awareness of the illegality of the act of use is also required (UPC_CoA_534/2024, UPC_CoA_683/2024, UPC_CoA_19/2025, Decision of 3 October 2025, mn. 190, 198 and 199 – Belkin v Philips). This applies even more so to a (financial) holding company. Since the Applicant has not stated any action of Defendant 3 going beyond its typical role of shareholder/financial holding, for instance using the

other companies to commit infringement or having knowledge of the infringing activities and not taking possible and reasonable action to stop it, the application against Defendant 3 has to be rejected.

X. Legal consequences

203. The following applies to the legal consequences for which the Applicant is applying.

1. Preliminary Injunction

204. In exercising its discretion (R. 209.2 RoP), the Court considers the grant of a preliminary injunction against the Defendants 1, 2, 4, 5 and 6 to be appropriate and justified (Art. 62(1), 25(a) UPCA). Only a preliminary injunction takes into account the Applicant's interest in the effective enforcement of the patent in suit.

205. The injunction will be granted based on claims 1, 13, and 15.

2. Penalty Payments

a) General principles

206. The system of penalties under the Rules of Procedure has been set out by the Court of Appeal (UPC_CoA_699/2025, Order of 14 October 2025, mn. 30 – 53, Kodak v. Fujifilm). As far as applicable here, the system is as follows. An order or decision may include a penalty order (R. 354.3 RoP). It follows from R. 354.3 RoP that the penalty amount that may be forfeited shall be set by the Court, considering the importance of the order in question. This amount should be sufficiently deterrent to be coercive, but also within reasonable limits for it to be an appropriate (proportionate) penalty. The penalty order must also specify upon which occurrence a certain penalty sum may be forfeited, e.g. as a lump sum or (preferably) for non-compliance per specified time period, per item, per act, etc. Where appropriate, the penalty order may also set a maximum amount of penalties that may be forfeited per order or overall. This, however, does not prevent the Court from increasing such maximum amount in any further order, e.g. in enforcement proceedings, for future further non-compliance, if the circumstances of the case so require (R. 354.3 RoP).

207. In view of legal certainty for the defendant, the order or decision on the merits should generally also, where compliance is not required immediately after service of the order or decision, specify the time period for compliance with each order, after which time a penalty shall be forfeited.

208. The suggested penalty amount for non-compliance with the relevant order(s) as well as the time period(s) for compliance therewith, must be included in the claimant's corresponding application (in the statement of claim, application for provisional measures or separate request as the case may be) (UPC_CoA_683/2024, Order of 3 October 2025, mn. 240 - Belkin v. Philips).

209. It is incumbent on the defendant to comment on both the penalty amount(s) as well as the time period suggested by the claimant during the proceedings on the merits or for provisional measures or for the separate request, as the case may be. If the claimant requests a penalty order but has not included a suggested amount and/or time period, the defendant may still comment on what it considers reasonable and feasible.

210. This also applies to applications for provisional measures (UPC_CoA_699/2025, Order of 14 October 2025, mn. 36 and 37, Kodak v. Fujifilm).

b) Case at hand

211. The Applicant has requested penalty payments for each individual infringement of the injunctions, of up to EUR 10,000 per infringing product and/or, in the case of continuous infringement such as the offering of the infringing method, of up to EUR 20,000 per day. The Applicant has further requested that the injunction and the penalty order will be immediately enforceable.

212. The Defendants have not commented on the penalty amounts or the time period suggested.

213. The Court regards the requested penalty amounts to be sufficiently deterrent to be coercive and also within reasonable limits for it to be an appropriate (proportionate) penalty. In view of none of the parties requesting this, the Court will not set a maximum to be forfeited already in this order.

214. The time period for compliance with each order, after which a penalty shall be forfeited, will be set at one week after the service of this order.

3. (No) enforcement security

a) General principles

215. Where appropriate, the enforcement of a decision may, pursuant to Art. 82(2) UPCA, be subject to the provision of security or an equivalent assurance to ensure compensation for any damage suffered, in particular in the case of injunctions. For provisional measures, this is reflected in R. 211.5 RoP, first sentence, which states that the Court may order the applicant to provide adequate security for appropriate compensation for any injury likely to be caused to the defendant which the applicant may be liable to bear in the event that the Court revokes the order for provisional measures. Furthermore, according to R. 352.1 RoP, decisions and orders may be subject to the rendering of a security (whether by deposit or bank guarantee or otherwise) by a party to the other party for legal costs and other expenses and compensation for any damage incurred or likely to be incurred by the other party if the decisions and orders are enforced and subsequently revoked.

216. Where provisional measures are revoked, or where they lapse due to any act or omission by the applicant, or where it is subsequently found that there has been no infringement or threat of infringement of the patent, the Court may order the applicant, upon request of the defendant, to provide the defendant with appropriate compensation for any injury caused by those measures (R. 213.2 RoP). Pursuant to R. 354.2 RoP, where during an action an enforceable decision or order of the Court is subsequently varied or revoked, the Court may order the party which has enforced such decision or order, upon the request of the party against whom the decision or order has been enforced, to provide appropriate compensation for any injury caused by the enforcement.

217. A security order is not dependent on a request by one of the parties. If provisional measures are ordered without the defendant having been heard, the Court shall order the applicant to provide appropriate security, unless there are special circumstances that preclude this (R.

213.2 RoP, second sentence). While security is therefore normally ordered in ex-parte situations, the Court has a discretion when the Defendant has been heard (inter partes, see R. 211.5 RoP, first sentence, „may“, UPC_CoA_523/2024, Order of 3 March 2025, mn. 110 - 113 – Sumi Agro v Syngenta; UPC_CFI_213/2024 (LD Düsseldorf), Order of 10 July 2025, mn. 131 – Aesculap v. Shanghai International Holding; UPC_CFI_712/2025 (LD Düsseldorf), Order of 5 December 2025, mn. 402 – Roche v Menarini).

218. If the Court does not see reasons to order, of its own motion, the rendering of security for enforcement of provisional measures, a defendant can still bring forward arguments and facts to support that the outcome may be different once the action on the merits is tried, and/or that there will be an undue burden in enforcing an order for compensation of injuries caused by the provisional measures if those measures are revoked. The burden of proof is then generally on the defendant. The undue burden can for example be related to the financial position of the applicant, or to the foreign law applicable in the territory where the order for compensation shall be enforced, including the application of that foreign law. Pursuant to R. 211.5 RoP, the Court may require the provision of adequate security to ensure that the Defendant is adequately compensated for the damage which it is likely to suffer if the Court revokes the order for provisional measures (UPC_CoA_523/2024, Order of 3 March 2025, mn. 114– Sumi Agro v Syngenta).

b) Case at hand

219. With reference to the Order of 6 November 2025 regarding the security for costs, the Court rejects the request to order security for enforcement.

220. The Defendants have not argued that the financial position of the Applicant gives rise to a legitimate and real concern that a possible order for costs may not be recoverable. The first ground for ordering security therefore does not apply.

221. With regard to the second ground for ordering security - how likely it is that a possible order for costs by the Court may not be enforceable, or that enforcement may be unduly burdensome - the Defendants solely refer to the order of the Munich Local Division of 27 August 2024 (UPC_CFI_74/2024 (Hand Held Products v Scandit) p. 60). They submit that in this order the Munich Local Division recognized that proceedings for the recognition and enforcement of a foreign damages award in the United States of America incur considerable legal costs which, even if successful, could be non-reimbursable.

222. Paragraph VII.2 on p. 60 of the Order of the Munich Local Division of 27 August 2024 reads:

> Vorliegend hat die Antragsgegnerin im Termin, anders als die Antragsgegnerin in dem Fall 10x Genomics, vorgetragen, dass ein Verfahren auf Anerkennung und Vollstreckung eines ausländischen Schadensersatztitels in den Vereinigten Staaten von Amerika Prozesskosten in erheblicher Höhe verursache, die selbst bei Erfolg nicht vom Schuldner zu erstatten seien. Die Antragstellerin hat sich hierzu nicht geäußert. Dieser Vortrag der Antragsgegnerin gilt daher im vorliegenden Verfahren als unstreitig (Regel 171.2 VerfO). Da eine vollständige Kompensation des Unterlassungsschuldners geschuldet und sicherzustellen ist, sind derartige nicht erstattbare Prozesskosten, soweit sie in erheblicher Höhe anfallen, zu berücksichtigen. Dieser Gesichtspunkt führt vorliegend dazu, dass die Lokalkammer das ihr eingeräumte Ermessen dahingehend ausübt, eine Sicherheitsleistung anzuordnen.

[English (machine) translation:]
In the present case, unlike the defendant in the 10x Genomics case, the defendant argued at the hearing that proceedings for the recognition and enforcement of a foreign judgment for damages in the United States of America would incur substantial legal costs which, even if successful, would not be reimbursed by the debtor. The applicant did not comment on this. This submission by the respondent is therefore considered undisputed in the present proceedings (Rule 171.2 RoP). Since full compensation is owed to and must be ensured for the debtor, such non-reimbursable legal costs must be taken into account insofar as they are substantial. In the present case, this consideration leads the Local Division to exercise its discretion to order the provision of security.

223. As follows from this paragraph, pursuant to R. 171.2 RoP the Munich Local Division held the statement of fact of the defendant in that case to be true between the parties, since the applicant did not contest it. This cannot be equated to the establishment of facts beyond that specific case and the parties involved. With the mere referral to the Order of 27 August 2024, the Defendants have not provided sufficient substantiation and proof of why an order for security for costs is appropriate in this case. The Defendants have not provided any evidence as to the foreign law applicable in the territory where the order is to be enforced, nor have they provided any evidence on the application of such law.

4. Costs

224. The decision on costs follows the standards set by the Court of Appeal, according to which a decision on costs shall be made in inter partes proceedings for provisional measures, since it concludes the action (UPC_CoA_523/2024, Order of 3 March 2025, mn. 117 – Sumi Agro v. Syngenta).

225. It will be ordered that, as the unsuccessful parties, the Defendants 1, 2, 4, 5 and 6 have to bear to costs of the proceedings. With regard to the proceedings against Defendants 3, it is assumed that no sufficiently significant costs have been made that would justify another decision on the costs. The request for interim award of costs has furthermore been reduced by the Applicant.

5. Interim award of costs

a) General principles

226. Pursuant to Art 69 UPCA in connection with R. 150.2 and R. 211.1(d) RoP, the Applicant can request an interim award of costs. An interim award of costs may also be ordered in proceedings for provisional measures. In proceedings for provisional measures, there will often be reasons to allow the successful party an interim award of costs. This allows the successful party to recover, on an interim basis, at least part of the costs incurred from the unsuccessful party, pending the subsequent start and final conclusion of separate proceedings for cost decision as set out in R. 150 et seq RoP (UPC_CoA_317/202, Order of 28 November 2025, headnotes 8-9 and mn. 97 - 99 - Barco v. Yealink).

227. In general, the Court may assume that the successful party will be entitled to 50% of the applicable ceiling for recoverable costs, and may order reimbursement of that amount by means of an interim award, unless there are clear indications that the successful party in fact incurred fewer representation costs or that 50% of the applicable ceiling is more than what would be reasonable or proportionate in the particular circumstances of the case. At the same time, as a general rule, the Court cannot assume that the successful party is entitled

to more than 50% of the applicable ceiling before the conclusion of the costs proceedings according to Chapter 5 of Part 1 RoP. An exception may apply if parties have submitted and discussed cost specifications during the proceedings or agreed on the costs to be reimbursed (UPC_CoA_464/2024, Decision of 25 November 2025, mn. 203 – Meril v. Edwards).

228. An interim award of costs up to the applicable ceiling for cost compensation effectively makes the procedure for cost decision pursuant to R. 150 et seq RoP largely redundant. While the Scale of ceilings for recoverable costs only applies to representation costs (see R. 152.2 RoP and Article 1(2) of the Scale of ceilings), and there can be additional costs in the form of recovery of court fees, costs of witnesses, costs of experts, and other expenses (see R. 151(d) RoP), representation normally forms the bulk of the costs. Even though the Court of First Instance has broad discretion in this matter, the Court of Appeal has considered that an interim costs award of up to equal to half of the ceiling is generally more appropriate. (UPC_CoA_317/202, Order of 28 November 2025, headnotes 8-11 and mn. 97 - 99 - Barco v. Yealink).

b) Case at hand

229. In the Application, the Applicant requested an interim award of costs of EUR 800.000,-.

230. The Defendants argue that the Applicant's request for an interim award of costs must be dismissed for lack of substantiation, since the Applicant has not given any justification whatsoever for the requested amount, nor has it tabled a detailed calculation of the costs it wishes to be reimbursed (cf. R. 151.d RoP). According to the Defendants, the amount of EUR 800,000,- appears to correspond to the Scale of ceilings for recoverable costs pursuant to R. 152.2 RoP for the value in dispute of EUR 12,000,000,- indicated by the Applicant. However, these ceilings only define the upper limit of the reimbursable costs. They do not constitute "flat rates" that can be claimed regardless of which costs were actually incurred, according to the Defendants.

231. On 14 January 2026, the day of the oral hearing, the Applicant submitted a reduced estimate of the representation costs, together with exhibits regarding invoices and work in progress, i.e. work already done but not yet invoiced. The Applicant argues that this is an estimate only, with further time and costs to be added following the oral hearing.

232. The Defendants objected to the provided evidence, since the invoices are partly redacted. They also objected to the estimated amount for the oral hearing.

233. The provided invoices and overview of work in progress regard the period up to and including 12 January 2026. This excludes costs made on 13 and 14 January 2026, the day of the oral hearing. Although the description of the activities in the invoices and overview of work in progress is redacted, the provided documents are sufficiently clear for the purpose of an interim award as to the date, timekeeper and amount relating to the current proceedings. Taking into account the considerations by the Court of Appeal, an interim award of costs of EUR 400.000, -, being an amount equal to half of the applicable ceiling for cost compensation in view of the not contested estimated value of the case of EUR 12.000.000,- and the provided specification, is considered appropriate. The provided specification of already made costs and the estimated further costs for representation, together exceed this amount of EUR 400.000,-. There are no clear indications that fewer costs were incurred, nor that this amount is more than what would be reasonable or proportionate in the particular circumstances of this case.

ORDER

A. The Defendants 1, 2, 4, 5 and 6 are ordered, in the territories of Austria, Belgium, Bulgaria, Germany, Denmark, Estonia, Finland, France, Italy, Lithuania, Luxembourg, Latvia, Malta, The Netherlands, Portugal, Romania, Sweden and Slovenia,

to cease and desist from

I. using or offering for use

a method for automated management of clinical modifications to a treatment plan for orthodontically treating teeth, the method comprising:

generating a digital model of a final position of a patient's teeth from a scan of the patient's teeth in an initial position of the patient's teeth;

generating the treatment plan comprising incremental positions of the patient's teeth to move the patient's teeth from the initial position towards the final position;

providing a three-dimensional representation of the treatment plan to a display (1324);

receiving, in real time, a user request to modify the treatment plan,
characterised by

determining, in real time, that the requested user modification is within a predetermined thresholds for modifications to the treatment plan,

generating, automatically and in real time when the user requested modification is within the predetermined threshold, a revised treatment plan based on the user requested modification; and

outputting to the display a three-dimensional representation of the revised treatment plan;

II. manufacturing, offering, placing on the market or using, or importing or storing for the aforementioned purposes,

orthodontic appliances obtained directly by the method of claim 1, further comprising: outputting instructions for fabricating a plurality of orthodontic appliances based on the modified treatment plan; and/or forming one or more aligners from the modified treatment plan;

III. supplying and/or offering to supply for use means which are suitable and intended for use in,

a system (200) for orthodontically treating teeth, the system comprising:

one or more processors and memory comprising instructions that when executed by the one more processors (1314) causes the system to carry out the method of one or more of claims 1 to 12.

B. For each individual infringement of the orders under A., the respective Defendant 1, 2, 4, 5 and 6 shall pay to the Court a (possibly repeated) penalty payment of up to EUR 10,000,- per infringing product and/or, in the case of continuous infringement such as the offering of the infringing method, of up to EUR 20,000,- per day.

C. The time period for compliance with each order under A., after which a penalty shall be forfeited, will be set at one (1) week after the service of this order.

D. The Defendants 1, 2, 4, 5 and 6 are ordered to provisionally reimburse the Applicant for costs in the amount of EUR 400,000,-.

E. The costs of the proceedings shall be borne by Defendants 1, 2, 4, 5 and 6.

F. In all other respects, the application for the ordering of provisional measures is rejected.

G. This order is enforceable without security.

H. The value of the case is set on EUR 12,000,000,-.

Düsseldorf on 12 February 2026
NAMES AND SIGNATURES

Presiding Judge Thomas	Ronny Thomas Digital unterschrieben von Ronny Thomas Datum: 2026.02.11 09:22:35 +01'00'
Legally qualified Judge Dr Thom	Anna Bérénice Dr. THOM Digital unterschrieben von Anna Bérénice Dr. THOM Datum: 2026.02.10 15:05:04 +01'00'
Legally qualified Judge Visser	Marjolein Jeanette Johanna Visser Signature numérique de Marjolein Jeanette Johanna Visser Date : 2026.02.10 13:46:08 +01'00'
Technically qualified Judge Dr Papa	Elisabetta Papa Firmato digitalmente da Elisabetta Papa Data: 2026.02.10 17:42:28 +01'00'
For the sub-registrar	LAURA CHANTAL DANIEL Digital unterschrieben von LAURA CHANTAL DANIEL Datum: 2026.02.10 15:08:02 +01'00'

INFORMATION ON APPEAL:

The Applicant and the Defendants may bring an appeal against the present order within 15 days of service of this order (Art. 73(2)(a), 62 UPCA, R. 220.1(c), 224.2(b) RoP).

INFORMATION ON ENFORCEMENT (ART. 82 UPCA, ART. 37(2) UPCS, R. 118.8, 158.2, 354, 355.4 ROP):

An authentic copy of the enforceable order will be issued by the Deputy-Registrar upon request of the enforcing party, R. 69 RegR.

NOTICE THAT PROCEEDINGS ON THE MERITS HAVE TO BE STARTED WITHIN A FIXED TERM

If proceedings on the merits are not started within a period not exceeding 31 calendar days or 20 working day whichever is longer from the time of service upon Defendant 2., the Court may order, upon request of Defendants 1, 2, 4, 5 and 6, that the present order be revoked or otherwise ceases to have effect (Art. 62(5), 60(8) UPCA, R. 213.1 RoP).