

**Internal distribution code:**

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

**Datasheet for the decision  
of 26 April 2022**

**Case Number:** T 2037/17 - 3.2.03

**Application Number:** 06784176.7

**Publication Number:** 1949019

**IPC:** F42B10/14, F42B10/38,  
F42B10/04, F42B10/40,  
F42B10/16, F42B10/64, F42B14/06

**Language of the proceedings:** EN

**Title of invention:**

METHOD OF INCREASING THE RANGE OF A SUBCALIBRE SHELL AND  
SUBCALIBRE SHELLS WITH A LONG RANGE

**Patent Proprietor:**

BAE Systems Bofors AB

**Opponent:**

LEONARDO S.p.A.

**Headword:**

**Relevant legal provisions:**

EPC Art. 123(2), 83, 56  
RPBA 2020 Art. 13(2)

**Keyword:**

Amendments - allowable (yes)

Sufficiency of disclosure - (yes)

Inventive step - non-obvious alternative

Amendment after summons - cogent reasons (no) - taken into account (no)

**Decisions cited:**

G 0003/14, J 0014/19

**Catchword:**



**Beschwerdekammern**  
**Boards of Appeal**  
**Chambres de recours**

Boards of Appeal of the  
European Patent Office  
Richard-Reitzner-Allee 8  
85540 Haar  
GERMANY  
Tel. +49 (0)89 2399-0  
Fax +49 (0)89 2399-4465

Case Number: T 2037/17 - 3.2.03

**D E C I S I O N**  
**of Technical Board of Appeal 3.2.03**  
**of 26 April 2022**

**Appellant:** BAE Systems Bofors AB  
(Patent Proprietor) 691 80 Karlskoga (SE)

**Representative:** Heimdal, Pär  
Heimdal Patent AB  
Hökarvägen 4  
129 41 Hägersten (SE)

**Appellant:** LEONARDO S.p.A.  
(Opponent) Piazza Monte Grappa 4  
00195 Roma (IT)

**Representative:** Vitillo, Giuseppe  
Barzanò & Zanardo Milano S.p.A.  
Corso Vittorio Emanuele II, 61  
10128 Torino (IT)

**Decision under appeal:** **Interlocutory decision of the Opposition  
Division of the European Patent Office posted on  
21 July 2017 concerning maintenance of the  
European Patent No. 1949019 in amended form.**

**Composition of the Board:**

**Chairman** C. Herberhold  
**Members:** B. Miller  
N. Obrovski

## **Summary of Facts and Submissions**

I. European patent No. 1 949 019 B1 ("the patent") relates to a method for increasing the range of shells (projectiles) charged with an explosive substance or provided with some other active payload.

II. An opposition was filed against the patent. In the interlocutory decision the opposition division found that the contested patent met the requirements of the EPC, on the basis of claims 1 to 7 of auxiliary request 1 submitted by fax on 24 April 2017.

Both parties appealed against this decision. As the patent proprietor and the opponent are appellants and respondents in these proceedings, for simplicity the Board will continue to refer to the parties as the patent proprietor and the opponent in this decision.

III. At the beginning of the oral proceedings, the patent proprietor requested that the decision under appeal be set aside and that the patent be maintained as granted or, alternatively, as amended on the basis of claims 1 to 7 of the main request submitted by fax on 24 April 2017. It further requested that the opponent's appeal be dismissed and the patent be maintained as amended on the basis of claims 1 to 7 of auxiliary request 1 submitted by fax on 24 April 2017.

The opponent requested that the decision under appeal be set aside and that the patent be revoked in its entirety.

IV. State of the art

The following documents cited during the opposition proceedings are of particular importance for the present decision:

- E1: Jane's Defence Weekly, Volume 42, Issue 37, 14 September 2005, advertising supplement from the company OTO Melara, 12 pages
- E2: Jane's Navy International - Volume 110 (2), 2 March 2005, advertisement from the company OTO Melara, page 18
- E3: Naval Forces No. IV/2005 - Vol. XXVI - (bimonthly magazine 4th number of 2005) - "Evolution of Smart Naval Munitions - Blurring the Border Line between Gun-fired Projectiles and Missiles", pages 50 to 51
- E4: WO 2005/003676 A2
- A6: US 4,438,893

The opponent submitted the following further documents with the statement setting out the grounds of appeal:

- A10: PDF printed copy of the definition of "fixed" from the Merriam Webster online dictionary
- A11: US 2004/094661 A1
- A12: US 2003/071166 A1

V. With the summons to oral proceedings, the Board sent a communication pursuant to Article 15(1) of the Rules of Procedure of the Boards of Appeal (RPBA) giving the parties its preliminary, non-binding opinion that the opposition division's decision was likely to be upheld.

VI. Oral proceedings were held on 26 April 2022 in the form of a videoconference.

At the end of the oral proceedings:

- i) The opponent additionally requested that the description be adapted
  - by introducing a reference to the Vulcano projectile and the DART projectile as prior art in the background section of the description and
  - by reflecting the distinguishing features as acknowledged by the Board

The opponent further requested that the independent claims of auxiliary request 1 as filed in the opposition proceedings by fax on 24 April 2017 be drafted in the two-part form accordingly.

- ii) The patent proprietor withdrew its request for the patent to be maintained as granted and its main request as filed in the opposition proceedings. Hence, the above-mentioned auxiliary request 1 as filed in the opposition proceedings is the sole remaining request to be discussed in this decision (referred to hereinafter as "the main request").

VII. Wording of the independent claims of the main request

Claim 1 reads

Method for increasing the range of shells (1, 8, 13) charged with an explosive substance or provided with some other active payload

(whereby) the shells (1, 8, 13), on the one hand, are made subcalibre and are provided with fixed rear guide fins (5, 10), wherein the radial extent or span of the fixed rear guide fins does not exceed the available space between the outside of the respective shell case (1, 8, 13) and the inside of a barrel in an artillery piece utilized for firing the shell (1, 8, 13) and,

on the other hand, are provided with non-retractable steerable front nose-mounted canard fins (6, 9), wherein the radial extent or span of the canard fins (6, 9) does not exceed the available space between the outside of the respective shell case (1, 8, 13) and the inside of a barrel in an artillery piece utilized for firing the shell (1, 8, 13), which rear and front fins (5, 6, 9, 10) together provide the shell (1, 8, 13) with aerodynamic bearing surfaces primarily during the terminal part of its trajectory, and in that the subcalibre shells (1, 8, 13) are fired from the respective artillery piece with propulsion mirrors (2) adapted for the purpose.

Claim 4 reads

Shell (1, 8, 13) charged with an explosive substance or provided with some other active payload, to which a long range has been imparted in accordance with the method according to one of the Claims 1 - 3, characterized in that the shell (1, 8, 13) is subcalibre relative to the barrel from which the shell (1, 8, 13) is intended to be fired, and in that the shell (1, 8, 13) is provided with fixed, rear mounted guide fins (5, 10), the radial extent or span of which does not exceed the available space between the outside of the case of the shell (1, 8, 13) and the inside of the barrel and also exhibits front non-retractable, moving, nose-mounted canard fins (6, 9), wherein the radial extent or span of the canard fins (6, 9) does not exceed the available space between the outside of the respective shell case (1, 8, 13) and the inside of a barrel in an artillery piece utilized for firing the shell (1, 8, 13).

VIII. The patent proprietor's arguments as far as relevant for the main request can be summarised as follows.

(a) Amendments

The limitation to shells comprising a fixed rear fin according to claim 1 was based on claim 1 of the application as originally filed, with one of the two options for the rear fins having been deleted.

Concerning the front canard fins, claim 1 had further been amended in a similar manner by deleting the alternative option of "folding" fins and replacing the term "fixed" with "non-retractable" in line with the disclosure on page 6, line 24 to page 7, line 6, and on page 11, lines 24 to 25 of the application as originally filed.

(b) Sufficiency

The skilled person was able to provide shells with steerable front and fixed rear fins in view of the common general knowledge.

Defining the canard fins as being non-retractable but steerable was readily understood by the skilled person. The definition therefore did not hinder the skilled person in any way in reworking the invention as defined in the patent.



(c) Inventive step

E1 to E4 described the Vulcano and DART subcalibre projectiles in general terms and did not disclose their rear and front canard fins in detail. In particular E1 to E4 did not disclose whether the fins of the Vulcano or DART projectiles were fixed or foldable/retractable. Moreover, no details could be retrieved from said documents concerning the kinematics or dimensions of the fins of the Vulcano or DART projectiles.

The subject-matter of claims 1 and 4 therefore differed from the disclosure in E1 to E4 concerning the Vulcano or DART projectiles in that:

- the rear fins were fixed fins
- the front canard fins were nose-mounted non-retractable, steerable front canard fins
- the rear and front fins together provided the shell with aerodynamic bearing surfaces primarily during the terminal part of its trajectory

Starting from the Vulcano or DART projectiles and their use as subcalibre ammunition, the objective technical problem to be solved in the context of claims 1 and 4 could be formulated as providing shells having a longer range.

To solve this problem the skilled person would not have considered A6 since it was related to spin-stabilised projectiles for point defence against antiship missiles, not to subcalibre projectiles having a long range due to good gliding properties.

Therefore the subject-matter as defined in claims 1 and 4 was not obvious.

(d) Late-filed request for further amendment of the claims and the adapted description

The request to amend the independent claims and the corresponding part of the description in order to reflect the Board's interpretation (by adopting or introducing a two-part form into the wording of the independent claims and introducing a description of the Vulcano and DART projectiles into the background section of the description of the patent) was late-filed and unfounded. Hence, it should not be admitted into the proceedings.

IX. The opponent's arguments can be summarised as follows.

(a) Amendments

The amendments in claims 1 and 4 extended beyond the teaching of the application as originally filed since a double selection (fixed/non-retractable) from the teaching in claim 1 was required, even when taking account of the disclosure on page 11 of the application. Moreover, the amendments to claim 1 resulted in an intermediate generalisation since teaching for shells comprising non-retractable, steerable front canard fins and fixed rear fins was not derivable from the application as originally filed.

(b) Sufficiency

The wording of claim 1 was vague and ambiguous concerning the structure of the front and rear fins. The patent did not disclose how to obtain the steerability of the non-retractable and thus "fixed" front canard fins. Furthermore, the patent did not

describe how the fins had to be arranged to provide aerodynamic bearing surfaces during the terminal part of the trajectory leading to an improved range compared with Vulcano or DART projectiles. Claim 1 was merely defined by the use of a propulsion mirror for achieving the desired effect, while the provision of aerodynamic bearing surfaces by the rear and front fins in fact described an effect to be achieved without any information in the patent as a whole about how this could be accomplished.

(c) Inventive step

The term "fixed" in conjunction with the rear fins as defined in claims 1 and 4 had to be interpreted broadly in view of the corresponding teaching of the patent referring to fins which were attached to the shell but which were neither foldable against the shell surface nor retractable into the shell. The term "fixed" in the context of the patent did not exclude the possibility that the fins were fixed to a rotating part of the shell.

Any rear and canard fin provided aerodynamic bearing surfaces during the terminal part of the trajectory of a shell since this was the purpose and effect of any fin. Claim 1 did not define any specific interplay or alignment of the rear and front fins.

The subject-matter of claims 1 and 4 therefore differed from the disclosure in E1 to E4 concerning the Vulcano or DART projectiles only in that the steerable, front canard fins were nose-mounted and non-retractable.

The objective technical problem could be seen as improving the steerability of the Vulcano or DART projectiles, in particular their terminal guidance.

From the common general knowledge, the skilled person knew the various fin arrangements available for projectiles. In this regard, the skilled person would consider any document relating to ammunition and projectiles, such as A6, which clearly demonstrated that the skilled person was aware of the fact that steerable, non-retractable canard fins of projectiles could be nose-mounted in order to improve the steerability to provide terminal guidance. Modifying a projectile of the DART system or the Vulcano system using a known alternative fin design was customary practice for the skilled person.

## **Reasons for the Decision**

1. Article 123(2) EPC
- 1.1 Claim 1 of the application as originally filed ("the application"; reference is made to the corresponding international publication WO 2007/058573 A2) refers to a shell comprising:
  - "folding or fixed rear guide fins" and
  - "fixed or folding front steerable so-called canard fins"

The application as filed therefore distinguishes between "fixed" and "folding" fins and discloses the possibility of using one of the two options.

- 1.2 The wording of claim 1 of the main request with regard to the rear fins therefore corresponds to the wording of claim 1 as filed, with one of the two options defined in that claim having been deleted.
- 1.3 Concerning the front canard fins, claim 1 has been further amended by deleting the alternative "folding" and replacing the term "fixed" with "non-retractable".

In this regard, the application describes the following from page 6, line 33 to page 7, line 6:

*"The expression folding is used here to denote that the aforementioned fins are so arranged as to be capable of being folded in and/or out in relation to the outside of the shell, that is to say including both fins that have been arranged folded against the outside of the shell and fins that have been retracted within the aforementioned outside, as a result of which the extent or the span of the fins in the radial direction outside the outside of the shell is essentially reduced or entirely eliminated during propulsion through the barrel."*

On page 11, lines 24 and 25, the application further states that the *"canard fins 6 could also have been non-retractable, that is to say fixed ..."*, thereby confirming that in the application the term "fixed" encompasses the meaning "non-retractable".

The application therefore discloses that the expression "fixed fins" is to be understood as being opposite to the expression "folding fins", which denotes fins which, when in their undeployed state, are "folded against the outside of the shell" or "retracted within the ... outside". Hence, the application specifies that

the expression "fixed ... front steerable canard fins" in claim 1 relates to non-foldable or non-retractable steerable canard fins.

Documents A10 to A12 do not call into question this interpretation of the term "fixed" in the context of the application as filed since to evaluate the technical teaching of the application as filed the technical term it uses has to be interpreted in the context of the application. Any abstract meanings presented in a dictionary, such as A10, or interpretations derivable in a different context, such as in A11 or A12, are irrelevant in this regard.

Limiting the general definition in claim 1 as filed to a more specific option - though explicitly described in the application as filed - does not extend its technical teaching and in particular does not lead to an intermediate generalisation.

Rather, the alternative options for the rear and front fins described in claim 1 of the application form short lists with only two or three members. Furthermore, there is no functional relationship between the front and rear fins with regard to their method of attachment in a "fixed" or "folding" design.

Selecting two independent and individual options within this very limited number of choices does not generate any new teaching. For this to be the case, multiple selections from longer lists would be required.

1.4 The further addition of "nose-mounted" to claim 1 of the main request is based on page 6, line 26 of the application.

- 1.5 The same arguments apply to the corresponding amendments in claim 4 of the main request.
- 1.6 The Board therefore agrees with the finding in point II.2 of the contested decision that the amendments to the claims according to the main request fulfil the requirements of Article 123(2) EPC.
2. Article 83 EPC
  - 2.1 According to Article 83 EPC and established case law as summarised in the Case Law of the Boards of Appeal, 9th edition, 2019 ("the Case Law"), the patent specification as a whole, and not claim 1 as such, must convey reworkable teaching for the skilled person; see the Case Law, Chapter II.C.3.1.

A successful objection for lack of sufficiency of disclosure presupposes that there are serious doubts, substantiated by verifiable facts (see the Case Law, Chapter II.C.9). The mere fact that a claim is broad does not constitute a reason to assume that the patent does not fulfil the requirement of sufficient disclosure.
  - 2.2 No technical difficulty can be seen in providing "fixed rear fins" and "non-retractable, steerable front nose-mounted canard fins" as defined in claims 1 and 4. Both parties also agreed in principle that the skilled person was aware of the various possible fin designs and how to achieve them.
  - 2.3 The opponent's objection is more so related to a perceived contradiction in the definition of the canard fins as being "non-retractable", hence "fixed", and "steerable" at the same time. However, this definition

does not leave the skilled person in doubt as to what is meant. In particular, it does not lead to a contradiction which prevents the skilled person from reworking the invention. In the context of the patent, the term "fixed" is to be understood as being opposite to "foldable against" or "retractable" (see point 1.3 above). Hence, when a meaningful interpretation of the term "non-retractable" is applied in claims 1 and 4, it does not mean "stationary", "non-movable" or even "non-steerable" and does not generate an irresolvable contradiction which prevents the skilled person from reworking the invention.

- 2.4 Moreover, the opponent pointed out that claim 1 defined an effect to be achieved ("the rear and front fins together provide the shell with aerodynamic bearing surfaces primarily during the terminal part of its trajectory") without giving information about how this could be accomplished.

However, the purpose of any fin is to provide aerodynamic bearing surfaces and thus to contribute to the flight characteristics of a projectile or shell. Hence, the skilled person cannot be expected to have any difficulties in providing shells with fins which provide aerodynamic bearing surfaces.

Although claim 1 specifies that "the rear and front fins together provide the shell with aerodynamic bearing surfaces", claim 1 does not require any further technical relationship among the fins, such as a specific alignment or orientation to achieve either an interplay of their aerodynamic bearing surfaces or an unexpected range; it is enough that both fins provide their share of aerodynamic bearing.



Hence, defining the shell to be used in the method of claim 1 by an intended effect to be achieved by the fins is not an obstacle preventing the skilled person from reworking the invention.

- 2.5 Since claim 1 does not define the method or shells in comparison with which the claimed shell-range increase has to be obtained, and given that claim 1 does not require any further special relationship among the fins such as a specific alignment or orientation to achieve an interplay of their aerodynamic bearing surfaces, the Board concludes that the invention as defined in claims 1 and 4 is sufficiently described in the patent to allow the skilled person to rework the invention.

The Board therefore agrees with the finding in point II.3 of the contested decision that the main request fulfils the requirements of Article 83 EPC.

3. Article 56 EPC

- 3.1 The parties agree that the DART projectile (a subcalibre projectile having Driven Ammunition Reduced Time of flight) and the Vulcano projectile as described in documents E1 to E4 are both extended-range subcalibre shells as addressed by the patent.

The Board sees no reason to deviate from the parties' opinion and the finding in point II.5 of the contested decision that both the Vulcano projectile as shown in Figure 5 of E3 and the DART projectile as shown in Figure 7 of E3 can be considered a suitable starting point for the assessment of inventive step.

Figure 5 of E3

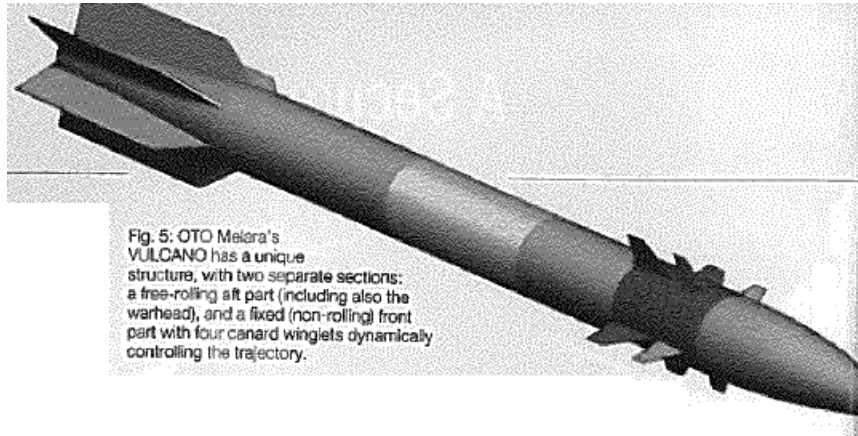
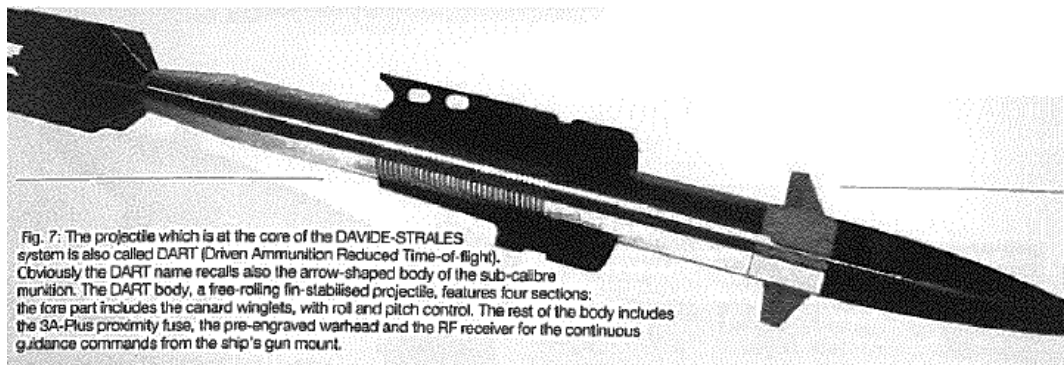


Figure 7 of E3



Both parties further agree that the arguments with regard to the Vulcano projectile equally apply to the DART projectile.

Hence, the discussion on inventive step below focuses by way of example on the Vulcano projectile as a starting point for the assessment of inventive step.

3.2 The Vulcano projectiles as disclosed in the paragraph bridging the left-hand and middle columns on page 4 of E1, in the advertisement according to E2 and in Figure 5 of E3 comprise a free-rolling aft part with rear fins and a non-rolling front part with steerable canard fins. The Vulcano projectile is a subcalibre projectile which is fired using a propulsion mirror as shown in the four small pictures close to the left edge of E2.

The fins are mounted on a rotating ring, so they can be considered to be fixed to the shell as per the patent (non-foldable, non-retractable).

The Vulcano projectile has a range of 100-120 km and flies a supersonic gliding trajectory (see E3, page 50, left-hand column, bullet point "Vulcano-C"). Therefore the front and rear fins of the Vulcano projectile together have to provide aerodynamic bearing surfaces.

3.3 In view of the above, the subject-matter of claim 1 differs from the projectiles of the Vulcano system in that the steerable front fins are non-retractable, nose-mounted fins.

3.4 The patent does not describe any effect or advantage linked to either the positioning of the front fins at the nose of the projectile or their non-retractable design.

Therefore, starting from the Vulcano projectile there is no reason to assume that using a shell as defined in claims 1 and 4 can improve the gliding properties of the Vulcano projectiles and hence improve their range, as argued by the patent proprietor. Nor can it be concluded that their steerability and hence their terminal guidance can be improved by using non-retractable, nose-mounted canard fins, as argued by the opponent.

3.5 Thus, the objective technical problem to be solved in the context of the claimed method and shell has to be formulated in a less ambitious manner as providing a shell with an alternative steering concept.

3.6 The documents relating to the Vulcano projectile do not contain any incentive or pointer to modify the projectile's design in terms of the front canard fins, in particular to have the canard fin at the nose of the shell.

No such motivation is provided by A6 either, which relates to spin-stabilised projectiles for point defence against antiship missiles, not to subcalibre projectiles having a wide range. The fins in A6 provide their steering action on a constantly spinning projectile whereas the canard winglets of the Vulcano munition provide their dynamic control of the trajectory on a fixed, non-rolling front part. The ammunition described in A6 is therefore used for short-distance defence and relates to a completely different type of projectile from the long-distance Vulcano shell, which relies on its optimum gliding properties. Hence, the skilled person would not consider the teaching of A6.

Even if the skilled person were to consider A6, they would only modify the Vulcano projectile as advertised in E1 to E3 if it were apparent that the advertised excellent gliding properties and long range of the projectile could be maintained if the position and design of the steering canard fins were changed.

However, A6 does not provide any teaching or motivation in this regard since it does not relate to long-distance projectiles having gliding properties. No such motivation is provided by the common general knowledge either since the skilled person would expect that changing the position of the fins would also change the aerodynamic properties and hence the gliding properties.

- 3.7 The Board therefore agrees with the reasoning in point II.6.1.2 of the contested decision and concludes that the subject-matter of claims 1 and 4 of the main request is not obvious when starting from the Vulcano projectiles disclosed in E1 to E3.
- 3.8 In line with the parties' submissions, the same arguments - and therefore also the same conclusion - apply when starting from the DART projectiles disclosed in E1, E3 and E4.
- 3.9 The claims of the main request therefore fulfil the requirements of Article 56 EPC.
4. Admissibility of the request for further amendment of the claims and the description
- 4.1 Any part of a party's appeal case which is not directed to the requests, facts, objections, arguments and evidence contained in the statement of grounds of appeal or reply constitutes an amendment to a party's appeal case within the meaning of Article 13(1) and (2) RPBA 2020 (J 14/19, Reasons 1.4).
- 4.2 At the end of the oral proceedings before the Board, the opponent requested that the description be adapted:
- by introducing a reference to the Vulcano projectile and the DART projectile as prior art into the background section of the description and
  - by reflecting the distinguishing features as acknowledged by the Board
- The opponent further requested that the independent claims of auxiliary request 1 as filed in the

opposition proceedings be drafted in the two-part form accordingly.

These requests for amendment - or objections - relate to the set of claims and the adapted description as considered to be allowable by the opposition division in the contested decision. Hence, these requests concern the set of claims and the accordingly adapted description on which the opponent's appeal was based.

- 4.3 As these requests were filed for the first time at the latest possible stage of the appeal proceedings - at the end of the oral proceedings before the Board - and hence after the notification of the summons to attend oral proceedings, they constitute an amendment to the opponent's appeal case which is subject to Article 13(2) RPBA 2020.

As per this provision, any amendment to a party's appeal case is, in principle, not to be taken into account unless there are exceptional circumstances, which have been justified with cogent reasons by the party concerned.

- 4.4 In the case in hand, the opponent has not presented any cogent reasons. The mere fact that the Board interpreted certain features in the claims and in E1 to E4 differently from the opposition division is not a reason to change the wording of the claims or the description; doing so does not change anything in respect of the claims' support by the description (Article 84 EPC). Consequently, any alleged inconsistency between the claims and the description must have already been present at the end of the opposition proceedings and thus could and should have been objected to at that point in time. There is no

justification for not raising these objections until the end of the oral proceedings before the Board.

- 4.5 Furthermore, the opponent's requests for further amendments are *prima facie* unfounded.
- 4.5.1 A mere editorial change such as implementing a two-part form in claim 1 or correcting the two-part form in claim 4 is not occasioned by a ground of opposition and therefore not allowable in view of Rule 80 EPC. Moreover, the two-part form is not obligatory under the EPC (see Rule 43(1) EPC: "Wherever appropriate, ...").
- 4.5.2 Even if the allegedly missing or wrong two-part form of a claim were considered to result in a lack of clarity as argued by the opponent, any such alleged lack of clarity must have already been present in the claims as granted and therefore cannot be examined in opposition and appeal proceedings (see G 3/14). Moreover, as stated above, even if the amendment in claim 4 as maintained required a change of the two-part form, any such change could and should have been requested in the opposition proceedings.
- 4.5.3 The description of the patent does not describe the Vulcano and DART projectile disclosed in E1 to E4. However, this does not lead to a contradiction or a lack of support between the claimed subject-matter and the corresponding description. Moreover, in view of the possible grounds for opposition pursuant to Article 100 EPC, a patent cannot be challenged on the basis that a prior-art citation is allegedly missing. The duty to state any advantageous effects of the invention with reference to the background art as per Rule 42(1)(b) EPC relates to the filing stage of an application and does not require the applicant to provide a complete

overview of the prior art. Lastly, this objection too could and should have been raised in the opposition proceedings (where the Vulcano and DART projectile had been discussed as the closest prior art), not at the end of the oral proceedings before the Board.

4.6 The Board therefore did not admit these late-filed requests/objections into the appeal proceedings under Article 13(2) RPBA 2020.

## Order

**For these reasons it is decided that:**

The appeals are dismissed.

The Registrar:

The Chair:



C. Spira

C. Herberhold

Decision electronically authenticated