

EDAP TMS S.A.
Parc Activite La Poudrette Lamartine
4/6 Rue du Dauphine
69120 Vaulx-en-Velin – France
R.C.S. Lyon 316 488 204

October 24, 2012

Via EDGAR

Mr. Martin James
Senior Assistant Chief Accountant
Division of Corporation Finance
Securities and Exchange Commission
100 F Street, NE
Washington, D.C. 20549

**Re: EDAP TMS SA
Form 20-F for the Fiscal Year Ended December 31, 2011
Filed April 26, 2012
File No. 000-29374**

Dear Mr. James:

We are responding to the Staff's comment letter dated October 10, 2012 relating to EDAP TMS SA's (the "Company") annual report on Form 20-F for the fiscal year ended December 31, 2011 (the "Form 20-F"). The numbered paragraphs below correspond to the numbered paragraphs of the Staff's comment letter which have been retyped in bold herein for your ease of reference.

Form 20-F for the Fiscal Year Ended December 31, 2011

Item 5. Operating and Financial Review and Prospects, Operating Results, page 31

- We note from your response to prior comment 1 that in future filings you will include a sub-total showing the specified measures excluding the FDA PMA trials segment in the notes to your financial statements. Please note that the presentation of a total or subtotal of segment profit or loss that is prepared for purposes of the reconciliation required by ASC 280-10-50-30 would still be considered a non-GAAP financial measure. Please refer to Question 104.04 of the CD&I on Non-GAAP Financial Measures. To the extent that you include non-GAAP measures in your MD&A in future filings you should include all of the disclosures required by item 10(e) of Regulation S-K, including reconciliations. Please provide us with a copy of your proposed revised disclosure..**

After further consideration of the Company's future financial disclosure and the diminishing importance of the FDA PMA trial expenses, the Company has decided to omit future reference to a subtotal of the profit or loss relating to the FDA PMA segment and, indeed, will no longer seek to isolate the effects of such expenses on its consolidated operating expenses in Item 5. The Company also considered ending segment reporting for its FDA PMA segment, but has decided to keep this reporting segment until the process with the FDA is more advanced because management continues to review closely these expenses. The Company therefore believes that Item 5 will not contain any non-GAAP financial measures in the future.

2. **We note your response to prior comment 2. Please provide us with a copy of the signature page of your Form 20-F that was manually signed by Messrs. Oczachowski and Soyer.**

Please find attached to this letter a copy of the signature page of the Company's Form 20-F that was signed by Messrs. Oczachowski and Soyer.

Item 18. Financial Statements

Note 31. Subsequent Significant Events as of April 26, 2012, page F-41

(b) Exchange Agreement regarding the Convertible Debentures and Warrants, page F-42

3. **Please refer to prior comment 3. We see that the €7.7 million of New Debentures (\$10 million) has an estimated preliminary fair value of €4.6 million (\$5.9 million) at inception. Please describe for us in greater detail the valuation procedures performed and valuation model utilized to determine the fair value of the New Debentures. Please also provide us a qualitative description of the facts and circumstances which support the discount to the note.**

We hereby refer to the Exchange Agreement closed on January 25, 2012 and as described in our response letter dated September 14, 2012.

In order to determine the fair value of the New Debentures, the Company based its valuation method on both principles that a) the fair value of the new instruments that resulted from the Exchange was equal to the fair value of the outstanding instruments prior to the Exchange; and b) the effective interest rate on the New Debentures was 35% at inception, in line with the valuation of the interest rate of the debt host of the 2007 Debentures. As of December 31, 2011, the Company had determined that the effective interest rate of the debt host of its 2007 Debentures was 35% and remained unchanged as of January 25, 2012. The Company determined that the New Debentures had been derived from the 2007 Debentures and that apart from the removal of the conversion option and related clauses, the New Debentures were held by the same investors and had the same features as the debt host of the 2007 Debentures, including the same nominal interest rate of 9% and the same covenants. At the date of the Exchange, the Company determined that it had the same risk profile as of December 2011 and therefore, that the effective interest rate of the New Debentures should remain unchanged at 35%.

Based on this, the Company determined that the fair value at inception of the New Debentures was \$6.3 million, to reflect a 35% effective interest rate. In view of providing investors with a preliminary estimate of the impact of the Exchange, the Company had made a preliminary valuation of \$5.9 million. This preliminary estimate was subsequently refined with a fair value calculation of \$6.3 million.

The difference between the \$10.0 million nominal value of the New Debentures and their fair value of \$6.3 million reflects the present discounting of the New Debentures with the effective interest rate of 35%, instead of their nominal interest rate of 9%.

4. **We note from your response to prior comment 4 that you provided the pro forma financial data under ASC 855-10-50-3 which recommends that companies consider supplementing the historical financial statements with pro forma financial data for significant non-recognized subsequent events. We note that your disclosure does not include a discussion and quantification of the pro forma adjustments and only includes selected line items from the balance sheet and statement of operations. In future filings, when you present pro forma data, please comply with the form and content requirements of Rule 11-02(b) of Regulation S-X. For example, in this case, the information disclosed should include a full pro forma balance sheet and pro forma statement of operations accompanied by a clear discussion of the information being presented, the assumptions made, and a clear description with appropriate quantification of the adjustments included in the pro forma data.**

The Company has taken careful note of the Staff's comment and in future filings, where applicable, will comply with the form and content requirements of Rule 11-02(b) of Regulation S-X. In future filings, as previously mentioned, the financial impact of the Exchange will be included as historical information.

* * *

As requested, the Company acknowledges that:

- the Company is responsible for the adequacy and accuracy of the disclosure in the filing;
- Staff comments or changes to disclosure in response to staff comments do not foreclose the Commission from taking any action with respect to the filing; and
- the Company may not assert staff comments as a defense in any proceeding initiated by the Commission or any person under the federal securities laws of the United States.

* * *

We appreciate your consideration in this matter. If you wish to discuss any of our responses, or have any further questions, please do not hesitate to call the undersigned (telephone number: +33-4-72-15-31-50) or email (esoyer@edap-tms.com).

Sincerely,

/s/ Eric Soyer
Eric Soyer
Chief Financial Officer

cc: Kate Tillan, *Assistant Chief Accountant, Securities and Exchange Commission*
Kevin Kuhar, *Staff Accountant, Securities and Exchange Commission*
Tom Jones, *Securities and Exchange Commission*
Geoff Kruczek, *Securities and Exchange Commission*

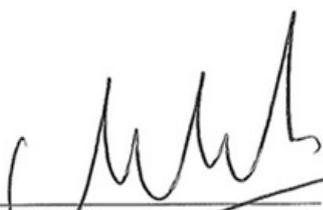
Marc Oczachowski, *EDAP TMS SA*
Linda Hesse, *Jones Day*

SIGNATURES

The registrant hereby certifies that it meets all of the requirements for filing on Form 20-F and that it has duly caused and authorized the undersigned to sign this annual report on its behalf.

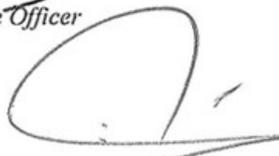
EDAP TMS S.A.

Dated: April 26, 2012



Marc Oczachowski
Chief Executive Officer

Dated: April 26, 2012



Eric Soyer
Chief Financial Officer