

EDAP TMS S.A.
Parc Activite La Poudrette Lamartine
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69120 Vaulx-en-Velin – France
R.C.S. Lyon 316,488,204

September 14, 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 July 23, 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 see that you discuss various measures in your management's discussion and analysis on pages 33 through 36 that adjust your operating results to exclude expenses from your FDA PMA trials. Please tell us how you considered the guidance in Item 10(e) of Regulation S-K relating to the presentation of non-GAAP measures in determining that the disclosures required by that Item were not required for these measures, including the reconciliation of a non-GAAP measure to its most directly comparable GAAP measure, the disclosure of the reasons why management believes the presentation provides useful information to investors and the additional purposes for which your management uses the non-GAAP measure. Alternatively, please revise future filings, including any amendments, to include the disclosures required by Item 10(e) for these measures and provide us with a copy of your proposed disclosure.**

The Company includes information about its FDA PMA trials in Item 5 as part of its segment reporting. In connection with the Company's \$20 million principal amount of 9% Senior Convertible Debentures due 2012 and related Warrants issued in 2007, the Company undertook to use the proceeds of the private placement to finance costs associated with the regulatory approval for the commercialization of

Ablatherm HIFU in the United States (including related clinical trials). As part of the Company's desire to monitor such costs and ultimately to provide investors with clear information regarding the use of such proceeds and, pursuant to Accounting Standards Codification 280, the Company updated its internal reporting with a new segment reviewed regularly by the Chief Operating Decision Maker, which resulted in the creation of a new reporting segment dedicated to the Federal Drug Administration's approval for the Company's Ablatherm-HIFU activity in its segment information.

Since that time, the Company's expenses in relation to FDA PMA activities have been presented in a separate reporting segment and detailed in a note to its financial statements, provided in conformity with ASC 280. The information provided in Item 5 of the Form 20-F with respect to GAAP measures excluding expenses of the FDA PMA trials is directly derived from the segment information that can be found in Note 27 to the Company's financial statements for the year ended December 31, 2011. The Company will include in its future filings a sub-total showing such measures excluding expenses of the FDA PMA in its Note 27.

Signatures, page 68

2. We note that your Form 20-F is unsigned. Please file a full amendment that includes all required signatures.

The Form 20-F was manually signed by Marc Oczachowski, Chief Executive Officer and Eric Soyer, Chief Financial Officer. Due to a clerical error, the Edgarized version of the document inadvertently failed to include the conformed signatures. The Company will ensure that future filings include properly conformed electronic signatures.

Given that the two officers authorized to sign on behalf of the registrant also signed the certifications required by Rules 13a-14(a) and (b) of the Exchange Act and by Form 20-F, and that the signature lines were correctly conformed in the Edgarized filing, the Company believes that it should be treated the same as various domestic issuers filing on Form 10-K, where the Staff noted the missing signatures and requested that future filings contain fully conformed signatures (see for example, SEC comment letters dated December 15, 2010 regarding Comfort Systems USA, Inc and dated March 28, 2012 regarding Stericycle, Inc.). The registrant's liability for the filing is clearly established by the fact that it filed the form and that the two officers authorized to take this corporate action signed the certifications in their individual capacities elsewhere in the filing.

In addition, the Company believes it would be a significant hardship and potentially misleading to investors for it to file an amendment containing an entire Form 20-F for the year ended December 31, 2011 that does not include updated information as required by General Instruction C(b) and C(d) to Form 20-F. Indeed, it would seem that any amendment containing the entire document would need to comply with the reporting requirements of each Item as of the date of filing, in particular because in this case, the signature pages would be dated the date of the amendment, as if the full document spoke also as of that date.

If the Staff believes that an amendment is required, we would propose to file an amendment containing:

- the Cover Page,
 - an explanatory note with the following text:
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“We are filing this Amendment No. 2 (this “Amendment No. 2”) to the Annual Report on Form 20-F for the year ended December 31, 2011, filed with the Securities and Exchange Commission (the “SEC”) on April 26, 2012 (the “Original Form 20-F”) by EDAP TMS SA (the “Company”), solely to file an electronic version of the manually signed signature page dated the date of the original filing, which version, due to a clerical error in the Edgarization process, was inadvertently omitted from the Original Form 20-F. As required by Rule 12b-15 under the Securities Exchange Act of 1934, as amended, new certifications by our Chief Executive Officer and Chief Financial Officer are being filed as exhibits to this Amendment No. 2 under Item 19. This Amendment No. 2 therefore consists solely of the cover page, this explanatory note, the electronic version of the signature page to the Original Form 20-F, the signature pages to this Amendment No. 2 and the exhibits attached hereto.

Other than as expressly set forth above, this Amendment No. 2 does not, and does not purport to, amend, update or restate any other information or disclosure included in the Original Form 20-F, or reflect any events that have occurred after the filing date of the Original Form 20-F. Accordingly, this Amendment No. 2 should be read in conjunction with the Original Form 20-F, Amendment No. 1 to the Annual Report on Form 20-F for the year ended December 31, 2011, filed with the Securities and Exchange Commission on May 21, 2012 and the documents filed with or furnished to the Securities and Exchange Commission by the Company subsequent to April 26, 2012, including any amendments to such documents. Among other things, forward-looking statements contained in the Original Form 20-F have not been revised to reflect events, results or developments that occurred or facts that became known to us after the original filing date, and such forward-looking statements should be read in their historical context.”

- the electronic version of the manually signed signature page dated the date of the original filing,
- the signature page for the amendment (appropriately conformed) dated the date the amendment is filed, and
- the certifications required by Rule 13a-14(a) of the Securities Exchange Act of 1934, dated the date of the amendment.

Item 18. Financial Statements

Note 31. Subsequent Significant Events as of April 26, 2012, (b) Exchange Agreement regarding the Convertible Debentures and Warrants, page F-42

3. **Please describe for us in appropriate detail how you valued and accounted for the exchange, including a discussion of how the embedded warrant derivatives were treated upon extinguishment, how the exchange was recorded and provide the calculations supporting any gain or loss recorded as part of the exchange. Please refer to the appropriate authoritative literature which supports your accounting.**
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I. BACKGROUND: DESCRIPTION OF THE EXCHANGE AGREEMENT

On January 19, 2012, the Company entered into a privately negotiated exchange agreement (the “Exchange Agreement”) with all holders of the Company’s outstanding 9% Senior Convertible Debentures due October 29, 2012 (the “2007 Debentures”) and warrants to purchase up to 882,000 ordinary shares at an exercise price of \$6.87 per share (the “2007 Warrants”). Pursuant to the terms of the Exchange Agreement:

- ‘Option A’ of the Exchange Agreement: certain holders of an aggregate principal amount of USD 500,000 of 2007 Debentures and 2007 Warrants to purchase up to 42,000 ordinary shares agreed to exchange their outstanding securities for 22,186 newly issued ordinary shares, in the form of ADRs, and \$500,000 in cash ; and
- ‘Option B’ of the Exchange Agreement: holders of an aggregate principal amount of USD 10 million of 2007 Debentures and 2007 Warrants to purchase up to 840,000 ordinary shares agreed to exchange their outstanding securities for an aggregate principal amount of USD 10 million of new 9% non-convertible Senior Debentures due June 30, 2014 (the “New Debentures”), new warrants to purchase up to 408,691 newly issued ordinary shares at an exercise price equal to the par value per share (the “New Warrants”), and 1,926,685 newly issued ordinary shares, in the form of restricted American Depositary Receipts (“ADRs”) (collectively, the “Exchange”).

On January 25, 2012, the Company closed the Exchange and all of the 2007 Debentures and the 2007 Warrants were exchanged for the New Debentures, 1,948,871 newly issued ordinary shares, in the form of ADRs, the New Warrants and \$500,000 in cash, or a combination thereof as described above.

As result of the Exchange, all 2007 Debentures and 2007 Warrants of the Company have been cancelled.

II. ACCOUNTING AND VALUATION ANALYSIS OF THE EXCHANGE AGREEMENT

II-1. Accounting analysis:

Analysis of the relevant accounting model to be applied by the Company to recognize the Exchange Agreement.

II-1-1. Authoritative literature and accounting principles

The Company considered guidance contained in FASB Accounting Standard Codification (ASC) 405-20 – Extinguishments of Liabilities and FASB ASC 470-50 – Debt Modifications and Extinguishment / FASB ASC 470-60 – Troubled Debt Restructuring for the general concepts on debt modifications and restructurings.

Pursuant to this literature and given that the Exchange did not result in a change of lenders, the Company structured its initial analysis around three questions:

1. Have the Liability Derecognition criteria been met pursuant to ASC 405-20-40?
 2. If not, do the Company and the Exchange meet the Troubled Debt Restructuring criteria?
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3. If the Troubled Debt Restructuring accounting model is not applicable, should the Company apply the accounting model for a Debt Modification or Extinguishment?

II-1-2. Application of the Extinguishment Accounting model to the Exchange Agreement

Step 1: Have the Liability Derecognition criteria been met pursuant to ASC 405-20-40?

The derecognition threshold would have been met only if: a) the Company had reimbursed the holders of the existing 2007 Debentures (upon delivery of cash, or of other financial assets, or of goods or services) for the total amount of the remaining 2007 Debentures; or b) the Company had been legally released from its debt obligation as the primary obligor. Since neither of these two criteria has been met through the Exchange, the Company needed to proceed to Step 2 of the debt exchange analysis in order to determine whether it should take the 2007 Debentures off its books.

Step 2: Did the Company and the Exchange meet the Troubled Debt Restructuring criteria?

The Company determined that the Company and the Exchange did not meet any of the criteria needed to apply the Troubled Debt Restructuring accounting model:

- The Company is not and was not at the time of the Exchange experiencing financial difficulties.
- The Exchange did not result in any economic concession granted to the Company by the Holders of the 2007 Debentures. This was primarily a result of the large "day 1 sweetener" of new shares and the New Warrants provided by the Company to facilitate the transaction (i.e., 1,948,871 ordinary shares in the form of ADRs and 408,691 New Warrants, with an exercise price set at par).

Since the Troubled Debt Restructuring accounting model did not apply to the Exchange, the Company then determined whether the Debt Modification or Debt Extinguishment model applied.

Step 3: Did the Exchange meet the Debt Extinguishment criteria?

Pursuant to FASB ASC 470-50-40-6 through 12, the Company determined that the Exchange met the Debt Extinguishment model on the basis that the New Debentures received in the exchange were substantially different from the 2007 Debentures, which were convertible.

The elimination of the conversion option, which was a substantive conversion feature within the meaning of FASB ASC 470-20-40-7 to 9, was a substantive modification of the 2007 Debentures and therefore qualified the exchange for the Debt Extinguishment model.

Similarly, the substantial differences in the 2007 Warrants and the New Warrants (different exercise prices, extended maturity, elimination of certain price adjustment mechanisms, including the elimination of the "Black-Scholes adjustment") justified the extinguishment of the 2007 Warrants.

As a result of the above, the Company determined that the Debt Extinguishment model should apply to account for the Exchange and that gains or losses that could result from the Exchange would be recognized in its income statement.

II-2. Valuation analysis:

II-2-1. Fair Value of the \$10 million principal amount New Debentures:

After review of its valuation models with experts and the assumptions used, the Company determined that a preliminary estimate of the fair value of the New Debentures, still subject to further review and analysis, was \$5,925,000.

The difference between the nominal value of the New Debentures (\$10,000,000 or €7,691,000 using the USD/EUR exchange rate on January 24, 2012 of 1.3003) and its preliminary estimate of market fair value (\$5,925,000 or €4,557,000 using the USD/EUR exchange rate on January 24, 2012 of 1.3003) is therefore €3,134,000.

II-2-2. Fair Value of the ordinary shares issued as part of the Exchange:

Pursuant to the Exchange Agreement, the Company issued 1,926,685 new ordinary shares to the holders that chose the cash and shares option of the Exchange Agreement.

Based on the market price of EDAP's shares on the day immediately prior to Closing (i.e., \$2.59 on January 24, 2012) and the USD/EUR exchange rate on January 24, 2012 (i.e., \$1.3003 for €1), the Company determined that the issuance price of the new ordinary shares shall be €1.99184 (i.e., \$2.59/1.3003) and that the total fair market value of the 1,926,685 new shares issued was €3,838,000.

II-2-3. Fair Value of the New Warrants issued as part of the Exchange:

Pursuant to the Exchange Agreement signed on January 19, 2012, the Company issued 408,691 New Warrants to the holders that chose the New Debentures, New Warrants and/or New Shares option of the Exchange Agreement.

The Company used a Black-Scholes model to value these warrants. The model, based on the market price of the Company's share of \$2.59 as of January 24, 2012, a strike price of €0.13 or \$0.17, a 10-year maturity, a 119.90% volatility and a risk-free interest rate of 2.17%, resulted in a \$2.56 fair market value for each New Warrant, i.e., a total fair value for the 408,691 issued New Warrants of \$1,059,000 or €814,000.

The 2007 Warrants were evaluated at issuance under FASB ASC 480-10-25, and ASC 815-40-15 and ASC 815-40-25 (formerly EITF 07-5 and 00-19, respectively) as freestanding instruments, as they were both legally detachable and separately exercisable from any other instruments. Based on this analysis, the 2007 Warrants were classified as a derivative liability because the Company may have been required to pay a net-cash settlement upon the occurrence of certain events outside the control of the Company. Specifically, Section 3(e) (Certain Adjustments-Fundamental Transaction) of the 2007 Warrants provided that under certain circumstances outside the control of the Company, the Company might be required, at the Holder's election, to pay an amount of cash equal to the value of the Warrant as determined in accordance with the Black-Scholes option pricing model. As a result, the 2007 Warrants did not qualify for a scope exception from derivative accounting under ASC 815-10-15-74(a) as it was not always within the Company's control to settle the contract in its own shares and therefore it did not meet the guidance of ASC 815-40-25.

The New Warrants that resulted from the Exchange (also legally detachable and separately exercisable) do not provide for any net cash settlement in any circumstances. Specifically, the 'Black-Scholes' cash settlement provision has been eliminated in Section 3(e) of the New Warrants. Considering this and all the other relevant features of the New Warrants, the Company determined that the New Warrants, which require settlement in shares, should be recognized as equity instruments. More specifically, the shares underlying the New Warrants were a fixed number of shares that were not redeemable outside of the Company's control, and therefore the guidance of ASC 480-10-25 did not apply. Further, the New Warrants qualified for a scope exception from derivative accounting under ASC 815-10-15-74(a) as the New Warrants are both indexed to the Company's own stock and can be classified in stockholders' equity in the statement of financial position.

II-3. Impact on consolidated accounts as of December 31, 2011

II-3-1. Disclosure as a Subsequent Event.

The Company entered into the Exchange Agreement on January 19, 2012, and issued the New Debentures, New Warrants and shares pursuant thereto on January 25, 2012. Therefore, the Exchange was not completed as of December 31, 2011 and the Company determined that the impact of the Exchange should be reflected in the Company's financial statements for the 2012 fiscal year.

Pursuant to ASC 855-10-50-2 and ASC 855-10-50-3, the Company determined that the Exchange Agreement was of such a significant nature that it needed to be disclosed as a subsequent event to keep the financial statements from being misleading and that such disclosure would be best made by means of disclosure of financial data relating to the impact of the Exchange presented in tabular format.

II-3-2. Valuation of the impact of the Exchange Agreement and related financial data as of December 31, 2011.

In order to determine the impact of the transaction, the Company conducted the following accounting analysis related to the Exchange Agreement:

	<u>Financial liability</u>		<u>Equity</u>		<u>P&L</u>	
	<u>Debit</u>	<u>Credit</u>	<u>Debit</u>	<u>Credit</u>	<u>Debit</u>	<u>Credit</u>
Option A / K\$500 cash redemption						
Extinguishment of existing debt, conversion option and warrants	347	385				38
Interest payment				29		29
Option B / Debt Exchange						
Extinguishment of existing debt	6,624					
Extinguishment of conversion option	124					
Extinguishment of warrants	186					
New Debt - Nominal Value (\$10M in KEUR)		7,691				
Fair Value impact on New Debt	3,134					
New ordinary shares (Fair value)				3,838		
New warrants (Fair value)				814		
Impact on P&L						2,275
Total P&L impact on Equity:				-2,342		
Total Net Impact on Equity:				2,338		

Upon closing of the Exchange, all 2007 Debentures and 2007 Warrants were cancelled: either as the result of a \$500,000 cash redemption (Option A), or as the result of the exchange for new shares, New Warrants and New Debentures (Option B). Under Option A, the extinguishment of all existing debt, conversion option and warrants amounted to €347 thousand (debt: €331 thousand, conversion option: €6 thousand, 2007 Warrants: €9 thousand), while under Option B, the extinguishment of all existing debt, conversion option and warrants amounted to €6,933 thousand (debt: € 6,624 thousand, conversion option: €124 thousand, 2007 Warrants: €186 thousand), for a total of €7,085 thousand (debt and conversion option) and €195 thousand(2007 Warrants).

Option A resulted in a cash payment of \$500,000, which was converted into €385,000 using the 1.3003 USD/EUR exchange rate as of January 24, 2012.

Option B resulted in the issuance of a \$10 million aggregate principal amount of New Debentures, New Warrants and shares, with market fair values of €4,557,000 (a €3,134,000 difference with the nominal value in Euros), €814,000 and €3,838,000, respectively.

Based on the above, the Company estimated the impact on its financial statements as of December 31, 2011 as follows, making the assumptions for that purpose that all market and economic parameters of the Exchange were the same at December 31, 2011 as they were as of January 25, 2012 and included the following tabular information in Note 31:

Note 31 of the 2011 20F-Annual Report - pro forma financial data:

<i>Amounts in thousands of euros</i>	As of Dec 31, 2011 before exchange offer ACTUAL	As of Dec 31, 2011 after exchange offer PRO FORMA	pro forma impact	Note Index for explanatory comments
Cash and cash equivalents	4,900	4,515	-385	(1)
Short term borrowings	1,700	1,700		
Current portion of long-term loans	238	238		
Convertible debentures at FV - current	7,085	0	-7,085	(2)
Financial Instruments at FV - current	195	0	-195	(2)
Short terms debt	9,218	1,938	-7,280	
Non-current portion of long-term loans	720	720		
Convertible debentures at FV - Long-term	0	4,557	4,557	(3)
Financial Instruments at FV - Long-term	0	0		
Long term debt	720	5,277	4,557	
Shareholder's equity	8,714	11,052	2,338	(5)
Operating profit (loss)	(2,497)	(2,497)		
Financial income, net	1,522	(820)	(2,342)	(4)
Net income (loss)	(938)	(3,280)	(2,342)	(4)

Comment (1): the impact on the Company's cash position was estimated to be -€385,000, as a result of the \$500,000 cash payment to the Holders having chosen Option A of the Exchange, as detailed above.

Comment (2): the impact on the current portion of the 2007 Debentures and 2007 Warrants was estimated to be -€7,085,000 thousand and -€195,000 thousand, respectively, as a result of the extinguishment of all 2007 Debentures and 2007 Warrants that were either redeemed for a cash payment as part of Option A of the Exchange, or exchanged for new securities and new debt as part of Option B the Exchange, as detailed above.

The 2007 Debentures and 2007 Warrants have been classified as current liabilities as the 2007 Debentures were to mature on October 29, 2012 and the 2007 Warrants terminated on October 30, 2013. The New Debentures mature on June 30, 2014 and therefore have been classified as a long-term liability in the tabular presentation above.

Comment (3): the impact on the non-current portion of the 2007 Debentures was estimated to be €4,557,000 (or \$5,925,477 / 1.3003), as a result of the recording of the new debt stemming from Option B of the Exchange, at fair value. The New Debentures mature on June 30, 2014 and therefore have been classified as a long-term liability in the tabular presentation.

Comment (4): the net impact on net financial income and net result was estimated to be -€2,342,000 and is described in the table above. It resulted from the extinguishment of the 2007 financial instruments (debt, conversion option and 2007 Warrants for a total of €7,280,000), the \$500,000 (€385,000) cash payment for Option A, the issuance of the \$10 million (€7,691,000) principal amount of New Debentures and the €3,134,000 difference between the nominal value and the fair value of the New Debentures, the issuance of the new shares (-€3,838,000) and New Warrants (-€814,000), and the accrued interest on the \$500,000 redeemed portion of the existing debt.

Comment (5): the net impact on Equity value was estimated to be €2,338,000 and is described on the table above. It resulted from the -€2,342,000 net result impact as described above, the €29,000 accrued interest on the \$500,000 portion of the 2007 Debentures redeemed under Option A of the Exchange, and the fair value of the new shares and New Warrants issued in the Exchange, of €3,838,000 and € 814,000 respectively.

4. In future filings, including any amendments, please either delete the pro forma information, or include all of the pro forma financial information and explanatory notes required by Article 11 of Regulation S-X.

The information set forth above was included in Note 31 to the Company's financial statements as required by ASC 855-10-50, which also requires disclosure of the characteristics of the Exchange and an analysis of the impact of the transaction on certain line items. ASC 855-10-50 provides that this impact can be shown by using a tabular presentation of pro forma financial information.

Because the Exchange will now be included in the Company's financial statements, including the six month financial information that the Company intends to file on Form 6-K, the Company believes that it is not useful to investors to amend its Form 20-F to omit this supplemental information.

Exhibits 12.1 and 12.2

5. We note that the identification of the certifying individual at the beginning of the Section 302 certification required by Exhibit 12 of Form 20-F also includes the title of the certifying individual. In future filings, including any amendments to your Form 20-F, please revise the identification of the certifying individual at the beginning of the certification to remove the individual's title.

In future filings, including any amendments to the Company's Form 20-F, the Company will remove the certifying individual's title at the beginning of the Section 302 certifications.

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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.

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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

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*