

UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549

AMENDMENT NO. 1
TO
FORM F-3
REGISTRATION STATEMENT
UNDER
THE SECURITIES ACT OF 1933

EDAP TMS S.A.
(Exact name of registrant as specified in its charter)

Not Applicable
(Translation of Registrant's name into English)

France
*(State or Other Jurisdiction
of Incorporation or Organization)*

Not applicable
*(I.R.S. Employer
Identification No.)*

Parc d'Activités la Poudrette-Lamartine
4, rue du Dauphiné
69120 Vaulx-en-Velin, France
+33 (0) 4 7215 3150
(Address and telephone number of Registrant's principal executive offices)

Corporation Service Company
1090 Vermont Avenue, Suite 430
Washington, D.C. 20005, USA
Tel: +1 800 927 9800
(Name, address and telephone number of agent for service)

Blandine Confort
EDAP TMS S.A.
4, rue du Dauphiné
69120 Vaulx-en-Velin, France
Fax : +33 (0) 4 72 15 31 44

Linda Hesse
JONES DAY
2 rue Saint-Florentin
75001 Paris, France
Fax : +33 (0) 1 56 59 39 38

Approximate date of commencement of proposed sale to the public: From time to time after the effective date of this Registration Statement as determined by market conditions.

If the only securities being registered on this Form are being offered pursuant to dividend or interest reinvestment plans, please check the following box.
If any of the securities being registered on this Form are to be offered on a delayed or continuous basis pursuant to Rule 415 under the Securities Act of 1933, check the following box.

If this Form is filed to register additional securities for an offering pursuant to Rule 462(b) under the Securities Act, please check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering.

If this Form is filed as a post-effective amendment filed pursuant to Rule 462(c) under the Securities Act, please check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering.

If this Form is a registration statement pursuant to General Instruction I.C. or a post-effective amendment thereto that shall become effective upon filing with the Commission pursuant to Rule 462(e) under the Securities Act, check the following box.

If this Form is a post-effective amendment to a registration statement filed pursuant to General Instruction I.C. filed to register additional securities or additional classes of securities pursuant to Rule 413(b) under the Securities Act, check the following box.

CALCULATION OF REGISTRATION FEE

Title of each class of securities to be registered	Amount to be registered ⁽¹⁾⁽²⁾	Proposed maximum aggregate offering price ⁽³⁾	Amount of registration fee ⁽³⁾
Ordinary shares, with a nominal value of €0.13 per share, issuable upon exercise of outstanding warrants	408,691 shares	US\$ 69,908 ⁽⁴⁾	US\$ 8.00
Ordinary shares, with a nominal value of €0.13 per share, issuable as interest shares on outstanding debentures	781,942 shares ⁽⁵⁾	US\$ 1,500,000	US\$ 172.00
Total	1,190,633 shares	US\$ 1,569,908	US\$ 180.00 ⁽⁶⁾

- (1) Ordinary shares may be in the form of American Depositary Shares evidenced by American Depositary Receipts. American Depositary Shares evidenced by American Depositary Receipts issuable on deposit of the ordinary shares registered hereby have been registered under separate registration statements on Form F-6/A (File No. 333-7314) and Form F-6EF (File No. 333-176843). Each American Depositary Share represents one ordinary share.
- (2) Pursuant to Rule 416 under the Securities Act, the ordinary shares being registered hereunder include such indeterminate number of ordinary shares as may be issuable with respect to the ordinary shares being registered hereunder as a result of stock splits, stock dividends or similar transactions.
- (3) In United States dollars or the equivalent thereof as converted from euros based upon the exchange rate of one U.S. dollar expressed in euros of €0.76, as set forth in the H.10 statistical release of the Federal Reserve Board on February 10, 2012.
- (4) Calculated in accordance with Rule 457(g) based on the exercise price of the warrants, which is €0.13 per share.
- (5) Based on the registrant's reasonable good-faith estimate of the maximum number of ordinary shares that may be issued in payment of interest on the registrant's outstanding debentures, calculated on the basis of the maximum total interest amount due under the initially issued debentures divided by an estimated price per ordinary share of \$1.9183, which represents 90% of the volume-weighted average price of the registrant's ADSs as listed on the Nasdaq Global Market over the 20 consecutive trading days from March 5, 2012 to March 31, 2012. The total number of ordinary shares that may be issuable as interest shares may exceed such number of shares because it is based on the market prices of the registrant's ADSs over a specified period prior to each interest payment date.
- (6) Such fee was paid upon filing of the original registration statement on Form F-3 (File No. 333-179689)

The Registrant hereby amends this Registration Statement on such date or dates as may be necessary to delay its effective date until the Registrant shall file a further amendment which specifically states that this Registration Statement shall thereafter become effective in accordance with Section 8(a) of the Securities Act of 1933 or until the Registration Statement shall become effective on such date as the Securities and Exchange Commission, acting pursuant to said Section 8(a), may determine.



EXPLANATORY NOTE

This Amendment No. 1 to the registration statement on Form F-3 filed on February 24, 2012 by EDAP TMS SA is being filed solely for the purpose of providing a reasonable estimate of the number of shares which may be issuable as interest shares on the registrant's outstanding debentures. No other changes to the prospectus included in the original registration statement are being made by this Amendment.

PART II

INFORMATION NOT REQUIRED IN THE PROSPECTUS

Item 8. *Indemnification of Directors and Officers*

The French Commercial Code prohibits provisions of articles of association (*statuts*) that limit the liability of directors or officers. However, directors' and officers' insurance is customary in France and commentaries suggest that companies may indemnify their directors and officers against liability they can be exposed to as a result of their duties, provided that such insurance or indemnity may not apply in the case of gross negligence (*faute lourde*) or willful misconduct (*faute intentionnelle*).

We maintain liability insurance for our directors and officers, including insurance against liabilities under the U.S. Securities Act of 1933, as amended.

Item 9. *Exhibits*

See Exhibit Index following the signature pages of this Registration Statement.

Item 10. *Undertakings*

(a) The undersigned registrant hereby undertakes:

(1) To file, during any period in which offers or sales are being made, a post-effective amendment to this registration statement:

(i) To include any prospectus required by Section 10(a)(3) of the Securities Act of 1933;

(ii) To reflect in the prospectus any facts or events arising after the effective date of the registration statement (or the most recent post-effective amendment thereof) which, individually or in the aggregate, represent a fundamental change in the information set forth in the registration statement. Notwithstanding the foregoing, any increase or decrease in volume of securities offered (if the total dollar value of securities offered would not exceed that which was registered) and any deviation from the low or high end of the estimated maximum offering range may be reflected in the form of prospectus filed with the Commission pursuant to Rule 424(b) if, in the aggregate, the changes in volume and price represent no more than a 20 percent change in the maximum aggregate offering price set forth in the "Calculation of Registration Fee" table in the effective registration statement; and

(iii) To include any material information with respect to the plan of distribution not previously disclosed in the registration statement or any material change to such information in the registration statement;

Provided, however, that paragraphs (a)(1)(i), (a)(1)(ii) and (a)(1)(iii) of this section do not apply if the registration statement is on Form S-3 or Form F-3 and the information required to be included in a post-effective amendment by those paragraphs is contained in reports filed with or furnished to the Commission by the registrant pursuant to Section 13 or Section 15(d) of the Securities Exchange Act of 1934 that are incorporated by reference into the registration statement, or is contained in a form of prospectus filed pursuant to Rule 424(b) that is part of this registration statement.

(2) That, for the purpose of determining any liability under the Securities Act of 1933, each such post-effective amendment shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial *bona fide* offering thereof.

(3) To remove from registration by means of a post-effective amendment any of the securities being registered which remain unsold at the termination of the offering.

(4) To file a post-effective amendment to the registration statement to include any financial statements required by Item 8.A. of Form 20-F at the start of any delayed offering or throughout a continuous offering. Financial statements and information otherwise required by Section 10(a)(3) of the Securities Act of 1933 need not be furnished, *provided*, that the registrant includes in the prospectus, by means of a post-effective amendment, financial statements required pursuant to this paragraph (a)(4) and other information necessary to ensure that all other information in the prospectus is at least as current as the date of those financial statements. Notwithstanding the foregoing, with respect to the registration statement on Form F-3, a post-effective amendment need not be filed to include financial statements and information required by Section 10(a)(3) of the Securities Act of 1933 or Item or Rule 3-19 of Regulation S-X if such financial statements and information are contained in periodic reports filed with or furnished to the Commission by the registrant pursuant to Section 13 or Section 15(d) of the Securities Exchange Act of 1934 that are incorporated by reference into the Form F-3.

(5) That, for the purpose of determining liability under the Securities Act of 1933 to any purchaser:

(i) Each prospectus filed pursuant to Rule 424(b)(3) shall be deemed to be part of the registration statement as of the date the filed prospectus was deemed part of and included in the registration statement; and

(ii) Each prospectus required to be filed pursuant to Rule 424(b)(2), (b)(5), or (b)(7) as part of a registration statement in reliance on Rule 430B relating to an offering made pursuant to Rule 415(a)(1)(i), (vii), or (x) for the purpose of providing the information required by section 10(a) of the Securities Act of 1933 shall be deemed to be part of and included in the registration statement as of the earlier of the date such form of prospectus is first used after effectiveness or the date of the first contract of sale of securities in the offering described in the prospectus. As provided in Rule 430B, for liability purposes of the issuer and any person that is at that date an underwriter, such date shall be deemed to be a new effective date of the registration statement relating to the securities in the registration statement to which that prospectus relates, and the offering of such securities at that time shall be deemed to be the initial *bona fide* offering thereof. *Provided, however*, that no statement made in a registration statement or prospectus that is part of the registration statement or made in a document incorporated or deemed incorporated by reference into the registration statement or prospectus that is part of the registration statement will, as to a purchaser with a time of contract of sale prior to such effective date, supersede or modify any statement that was made in the registration statement or prospectus that was part of the registration statement or made in any such document immediately prior to such effective date.

(6) That for the purpose of determining liability of the registrant under the Securities Act of 1933 to any purchaser in the initial distribution of securities:

The undersigned registrant undertakes that in a primary offering of securities of the undersigned registrant pursuant to this registration statement, regardless of the underwriting method used to sell the securities to the purchaser, if the securities are offered or sold to such purchaser by means of any of the following communications, the undersigned registrant will be a seller to the purchaser and will be considered to offer or sell such securities to such purchaser,

(i) Any preliminary prospectus or prospectus of the undersigned registrant relating to the offering required to be filed pursuant to Rule 424;

(ii) Any free writing prospectus relating to the offering prepared by or on behalf of the undersigned registrant or used or referred to by the undersigned registrant;

(iii) The portion of any other free writing prospectus relating to the offering containing material information about the undersigned registrant or its securities provided by or on behalf of the undersigned registrant; and

(iv) Any other communication that is an offer in the offering made by the undersigned registrant to the purchaser.

(b) The undersigned registrant hereby undertakes that, for purposes of determining any liability under the Securities Act of 1933, each filing of the registrant's annual report pursuant to Section 13(a) or 15(d) of the Securities Exchange Act of 1934 (and, where applicable, each filing of an employee benefit plan's annual report pursuant to Section 15(d) of the Securities Exchange Act of 1934) that is incorporated by reference into the registration statement shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial *bona fide* offering thereof.

(c) The undersigned registrant hereby undertakes that:

(i) For purposes of determining liability under the Securities Act of 1933, the information omitted from the form of prospectus filed as part of this registration statement in reliance upon Rule 430A and contained in the form of prospectus filed by the registrant pursuant to Rule 424(b)(1) or (4) or 497(h) under the Securities Act of 1933 shall be deemed to be part of the registration statement as of the time it was declared effective.

(ii) For purposes of determining any liability under the Securities Act of 1933, each post-effective amendment that contains a form of prospectus shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial *bona fide* offering thereof.

(d) Insofar as indemnification for liabilities arising under the Securities Act of 1933 may be permitted to directors, officers and controlling persons of the registrant pursuant to the foregoing provisions, or otherwise, the registrant has been advised that in the opinion of the Securities and Exchange Commission such indemnification is against public policy as expressed in the Securities Act of 1933 and is, therefore, unenforceable. In the event that a claim for indemnification against such liabilities (other than the payment by the registrant of expenses incurred or paid by a director, officer or controlling person of the registrant in the successful defense of any action, suit or proceeding) is asserted by such director, officer or controlling person in connection with the securities being registered, the registrant will, unless in the opinion of its counsel the matter has been settled by controlling precedent, submit to a court of appropriate jurisdiction the question of whether such indemnification by it is against public policy as expressed in the Act and will be governed by the final adjudication of such issue.

SIGNATURES

Pursuant to the requirements of the Securities Act of 1933, EDAP TMS S.A. certifies that it has reasonable grounds to believe that it meets all of the requirements for filing on Form F-3 and has duly caused this registration statement to be signed on its behalf by the undersigned, thereunto duly authorized, in the City of Vaulx-en-Velin, France, on April 27, 2012.

EDAP TMS SA

By: /s/ Marc Oczachowski
Name: *Marc Oczachowski*
Title: *Chief Executive Officer*

By: /s/ Eric Soyer
Name: *Eric Soyer*
Title: *Chief Financial Officer*

Pursuant to the requirements of the Securities Act of 1933, as amended, this Registration Statement has been signed by the following persons in the capacities indicated on April 27, 2012.

By: /s/ Marc Oczachowski
Name: Marc Oczachowski
Title: Chief Executive Officer
(Principal Executive Officer)

By: /s/ Eric Soyer
Name: Eric Soyer
Title: Chief Financial Officer
(Principal Financial and Accounting Officer)

By: *
Name: Philippe Chauveau
Title: Chairman of the Board of Directors

By: *
Name: Pierre Beysson
Title: Director

By: *
Name: Rob Michiels
Title: Director

By: *
Name: Argil Wheelock
Title: Director

By: *
Name: Jeff Howell
Title: Representative in the United States of America

*By: /s/ March Oczachowski
Name: Marc Oczachowski
Title: Attorney-in-fact

EXHIBIT INDEX

Description

5.1**	Opinion of Jones Day, French counsel to the registrant.
23.1	Consent of Ernst & Young.
23.2**	Consent of Jones Day (included in Exhibit 5.1).
24.1**	Powers of attorney (included in the signature pages herein).
99.1*	Form of Debenture.
99.2*	Form of Warrant.
99.3*	Form of Registration Rights Agreement.

*Incorporated by reference to the registrant's report on Form 6-K furnished on January 27, 2012.

** Previously filed.

CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

We consent to the reference to our firm under the caption “Experts” in the Registration Statement (Form F-3), as amended, and related Prospectus of EDAP TMS S.A. (the “Company”) for the sale of up to 408,691 of the Company’s ordinary shares issuable upon exercise of outstanding warrants and up to 781,942 of the Company’s ordinary shares issuable as interest shares on outstanding debentures (either in the form of shares or American Depositary Shares) and to the incorporation by reference therein of our report dated April 26, 2012, with respect to the consolidated financial statements of the Company and its subsidiaries included in the Company’s Annual Report (Form 20-F) for the year ended December 31, 2011, filed with the Securities and Exchange Commission.

ERNST & YOUNG Audit

Represented by
Nicolas Sabran

Lyon, France
April 27, 2012