

SECURITIES AND EXCHANGE COMMISSION  
Washington, D.C. 20549

FORM 6-K

REPORT OF FOREIGN PRIVATE ISSUER

PURSUANT TO RULE 13a-16 OR 15d-16  
UNDER THE SECURITIES EXCHANGE ACT OF 1934

EDAP TMS S.A. Files on

May 18, 2010

EDAP TMS S.A.  
Parc Activite La Poudrette Lamartine  
4/6 Rue du Dauphine  
69120 Vaulx-en-Velin - France

Indicate by check mark whether the registrant files or will file annual reports under cover of Form 20-F or Form 40-F.

Form 20-F  Form 40-F

Indicate by check mark whether the registrant by furnishing the information contained in this Form is also thereby furnishing the information to the Commission pursuant to Rule 12g3-2(b) under the Securities Exchange Act of 1934.

Yes  No

This report on Form 6-K is hereby incorporated by reference in the registration statement of EDAP TMS S.A. on Forms F-3, file number 333-136811, 333-147762 and 333-152738.

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**SIGNATURES**

Pursuant to the requirements of the Securities Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned thereunto duly authorized.

Date: May 18, 2010  
EDAP TMS S.A.

/s/ MARC OCZACHOWSKI  
MARC OCZACHOWSKI  
CHIEF EXECUTIVE OFFICER

## EDAP Reports First Quarter 2010 Financial Results

### First Quarter 2010 Highlights:

- **Approval and launch of Sonolith i-sys in Japan and Sonolith i-move in Europe**
- **Total revenue in line with expectations after strong fourth quarter 2009**
- **Robust cash position of EUR 11.3 million (USD 15.3 million) as anticipated**
- **HIFU expansion continues surpassing 22,000 treatments in Q1.**

LYON, France, May 18, 2010 (GLOBE NEWSWIRE) -- EDAP TMS SA (Nasdaq:EDAP), the global leader in therapeutic ultrasound, announced today financial results for the first quarter ended March 31, 2010.

Revenue for the first quarter 2010, was EUR 4.3 million (USD 5.9 million), compared to EUR 5.4 million (USD 6.9 million) for the first quarter of 2010. Total revenue for the first quarter 2010 reflected traditional seasonality for HIFU and lithotripsy device sales following a strong fourth quarter 2009.

Total revenue for the HIFU division was EUR 1.6 million (USD 2.2 million) in the first quarter 2010, compared to EUR 2.0 million (USD 2.6 million) for the same period last year. Results for the first quarter 2010 reflect the sale of one previous owned Ablatherm-HIFU machine at a discounted price compared to the new machine sales. At the beginning of the second quarter 2010, the Company is actively developing a pipeline of sales and expects future quarters to reflect these transactions.

For the three months ended March 31, 2010, total revenue for the lithotripsy division was EUR 2.7 million (USD 3.8 million), compared to EUR 3.3 million (USD 4.3 million) during the year ago period. During the first quarter 2010, the Company recorded sales of six lithotripsy machines, including one Sonolith i-sys device, compared to seven machines, including three Sonolith i-sys devices, sold in the prior year period. The Company has a solid pipeline of lithotripsy projects and its sales team is actively working on maturing these deals. At the beginning of the second quarter 2010, the Company already has a strong backlog of six lithotripsy systems, including four Sonolith i-sys devices and one recently launched Sonolith i-move system.

Gross profit for the first quarter 2010 was EUR 1.7 million (USD 2.3 million), compared to EUR 2.1 million (USD 2.7 million) in the year ago period. Gross profit margin was 39.6% in the first quarter 2010, compared to 39.7% in the year ago period.

Operating expenses decreased to EUR 3.1 million (USD 4.2 million) for the first quarter 2010, compared to EUR 3.4 million (USD 4.4 million) for the same period 2009. First quarter 2010 operating expenses included EUR 0.6 million related to the U.S. FDA ENLIGHT clinical trial for Ablatherm-HIFU.

Operating loss was EUR 1.4 million (USD 1.9 million) for the first quarter 2010, compared to EUR 1.3 million (USD 1.6 million) for the year ago period. Excluding U.S. FDA trial expenses, first quarter 2010 operating loss was EUR 0.8 million.

Net loss for the first quarter 2010 was EUR 2.6 million (USD 3.5 million), or EUR 0.24 per diluted share, compared to a net loss of EUR 3.1 million (USD 4.0 million), or EUR 0.32 per diluted share, in the year ago period. The first quarter 2010 net loss included a non-cash interest expense of EUR 1.0 million (USD 1.3 million) to adjust the Company's convertible debt and outstanding warrants to fair value, compared to a EUR 1.2 million (USD 1.6 million) non-cash expense during the prior year period.

At March 31, 2010, cash and cash equivalents, including short-term treasury investments, were EUR 11.3 million (USD 15.3 million). The current cash position continues to leave the Company well funded to pursue its strategic development projects, both in the U.S. and Europe.

Marc Oczachowski, EDAP's Chief Executive Officer, commented, "Entering the second quarter 2010, we are encouraged by the expected return of capital equipment sales from our robust pipeline of projects. While revenues in the first quarter 2010 reflected anticipated seasonality and an uncertain economic climate in Europe, we are confident in the growth of our business and continued penetration of our expanded product portfolio in key markets. Turning to our newest product, the European launch of the Sonolith i-move was a significant milestone, validating EDAP as a leader in the development and innovation of high-end technology. The approval highlights our successful execution of regulatory processes and approvals for multiple devices in major global markets."

Mr. Oczachowski, continued, "Our strategy remains to aggressively expand our business by investing in development projects that will sustain EDAP's long-term growth. We will continue our efforts to reach profitability through global operating efficiencies and business development initiatives."

### Conference Call

EDAP will hold a conference call on Tuesday, May 18, 2010 at 8:30 a.m. ET to discuss the results. The dial-in numbers are (877) 407-4134 for domestic callers and (201) 689-8430 for international. The conference ID number for both is 350180. A live Webcast of the conference call will be available online from the investor relations page of the Company's corporate Website at [www.edap-tms.com](http://www.edap-tms.com).

After the live Webcast, the call will remain available on EDAP's Website, [www.edap-tms.com](http://www.edap-tms.com), through June 18, 2010. In addition, a telephonic replay of the call will be available until May 25, 2010. The replay dial-in numbers are 877-660-6853 for domestic

## About EDAP TMS SA

EDAP TMS SA develops and markets Ablatherm, the most advanced and clinically proven choice for high-intensity focused ultrasound (HIFU) treatment of localized prostate cancer. HIFU treatment is shown to be a minimally invasive and effective treatment option with a low occurrence of side effects. Ablatherm-HIFU is generally recommended for patients with localized prostate cancer (stages T1-T2) who are not candidates for surgery or who prefer an alternative option, or for patients who failed radiotherapy treatment. Approved in Europe as a treatment for prostate cancer, Ablatherm-HIFU (High Intensity Focused Ultrasound) is currently undergoing evaluation in a multicenter U.S. Phase II/III clinical trial under an Investigational Device Exemption granted by the FDA, the ENLIGHT U.S. clinical study. The Company also is developing this technology for the potential treatment of certain other types of tumors. EDAP TMS SA also produces and commercializes medical equipment for treatment of urinary tract stones using extra-corporeal shockwave lithotripsy (ESWL). For more information on the Company, please visit <http://www.edap-tms.com>, and <http://www.hifu-planet.com>.

## Forward-Looking Statements

In addition to historical information, this press release contains forward-looking statements that involve risks and uncertainties. These include statements regarding the Company's growth and expansion plans, the conclusiveness of the results of and success of its Ablatherm-HIFU clinical trials and expectations regarding the IDE submission to and approval by the FDA of the Ablatherm-HIFU device. Such statements are based on management's current expectations and are subject to a number of uncertainties, including the uncertainties of the regulatory process, and risks that could cause actual results to differ materially from those described in these forward-looking statements. Factors that may cause such a difference include, but are not limited to, those described in the Company's filings with the Securities and Exchange Commission and in particular, in the sections "Cautionary Statement on Forward-Looking Information" and "Risk Factors" in the Company's Annual Report on Form 20-F. Ablatherm-HIFU treatment is in clinical trials, but not FDA-approved or marketed in the United States.

**EDAP TMS S.A.**  
**CONDENSED CONSOLIDATED STATEMENTS OF OPERATIONS (UNAUDITED)**  
 (Amounts in thousands of Euros and U.S. Dollars, except per share data)

	Three Months Ended :		Three Months Ended :	
	March 31, 2010 Euros	March 31, 2009 Euros	March 31, 2010 \$US	March 31, 2009 \$US
Sales of goods	1,760	2,582	2,408	3,333
Net Sales of RPP and Leases	1,239	1,413	1,695	1,824
Sales of spare parts and Services	1,334	1,365	1,826	1,762
<b>TOTAL NET SALES</b>	<b>4,333</b>	<b>5,360</b>	<b>5,929</b>	<b>6,919</b>
Other revenues	2	8	3	11
<b>TOTAL REVENUES</b>	<b>4,335</b>	<b>5,369</b>	<b>5,932</b>	<b>6,930</b>
Cost of goods	(987)	(1,743)	(1,351)	(2,250)
Cost of RPP and Leases	(660)	(706)	(903)	(911)
Cost of spare parts & services	(972)	(793)	(1,330)	(1,024)
Cost of sales	(2,619)	(3,242)	(3,585)	(4,185)
<b>GROSS PROFIT</b>	<b>1,715</b>	<b>2,127</b>	<b>2,347</b>	<b>2,745</b>
Research & development expenses	(753)	(932)	(1,031)	(1,203)
Marketing & Sales expenses	(1,446)	(1,482)	(1,979)	(1,913)
G & A expenses	(900)	(981)	(1,232)	(1,267)
Total operating expenses	(3,100)	(3,396)	(4,242)	(4,384)
<b>OPERATING PROFIT (LOSS)</b>	<b>(1,384)</b>	<b>(1,269)</b>	<b>(1,895)</b>	<b>(1,638)</b>
Interest (expense) income, net	(1,598)	(1,660)	(2,187)	(2,143)
Currency exchange gains (loss), net	462	(122)	632	(157)
Other income (loss), net	--	6	--	8
<b>INCOME (LOSS) BEFORE TAXES AND MINORITY INTEREST</b>	<b>(2,521)</b>	<b>(3,045)</b>	<b>(3,450)</b>	<b>(3,930)</b>
Income tax (expense) credit	(69)	(43)	(94)	(55)
<b>NET INCOME (LOSS)</b>	<b>(2,589)</b>	<b>(3,088)</b>	<b>(3,544)</b>	<b>(3,986)</b>
Earning per share – Basic	(0.24)	(0.32)	(0.32)	(0.42)
Average number of shares used in computation of EPS	10,944,958	9,582,593	10,944,958	9,582,593
Earning per share – Diluted	(0.24)	(0.32)	(0.32)	(0.42)
Average number of shares used in computation of EPS for positive net income	10,980,385	9,594,368	10,980,385	9,594,368

**NOTE:** Translated for convenience of the reader to U.S. dollars at the 2010 average three months noon buying rate of 1 Euro = 1.3686 USD, and 2009 average three months noon buying rate of 1 Euro = 1.2909 USD.

**CONSOLIDATED BALANCE SHEETS HIGHLIGHTS (UNAUDITED)**  
 (Amounts in thousands of Euros and U.S. Dollars)

	Mar 31, 2010 Euros	Dec. 31, 2009 Euros	Mar. 31, 2010 \$US	Dec. 31, 2009 \$US
Cash, cash equivalents and short term investments	11,342	12,703	15,342	18,207
Total current assets	31,875	33,248	41,567	46,981
Total current liabilities	13,341	15,175	18,046	21,750
Shareholders' Equity	11,287	12,579	15,267	18,029

**NOTE:** Translated for convenience of the reader to U.S. dollars at the noon buying rate of 1 Euro = 1.3526 USD, on March 31, 2010 and at the noon buying rate of 1 Euro = 1.4333 USD, on December 31, 2009.

**EDAP TMS S.A.**  
**CONDENSED STATEMENTS OF OPERATIONS BY DIVISION**  
**THREE MONTHS ENDED MARCH 31, 2010**  
 (Amounts in thousands of Euros)

	HIFU Division	UDS Division	FDA Trials	Corporate	Total After Consolidation
Sales of goods	324	1,436			1,760
Sales of RPPs & Leases	919	320			1,239
Sales of spare parts & services	341	993			1,334
<b>TOTAL NET SALES</b>	<b>1,584</b>	<b>2,748</b>			<b>4,333</b>
Other revenues	2	0			2
<b>TOTAL REVENUES</b>	<b>1,586</b>	<b>2,748</b>			<b>4,335</b>
<b>GROSS PROFIT</b>	<b>838 53%</b>	<b>877 32%</b>			<b>1,715 40%</b>
Research & Development	(28)	(200)	(525)		(753)
Total SG&A plus depreciation	(802)	(1,113)	(69)	(361)	(2,346)
<b>OPERATING PROFIT (LOSS)</b>	<b>8</b>	<b>(436)</b>	<b>(594)</b>	<b>(361)</b>	<b>(1,384)</b>

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