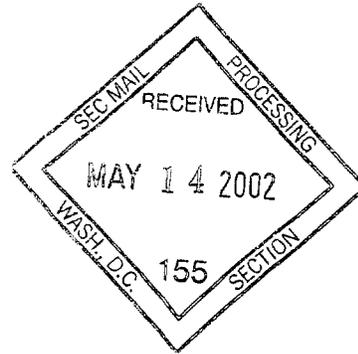




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SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549

FORM 6-K

Report of Foreign Issuer
Pursuant to Rule 13a-16 or 15d-16 of
the Securities Exchange Act of 1934

May 8, 2002 *PIE*

NOVA MEASURING INSTRUMENTS LTD.
(Translation of registrant's name into English)

PROCESSED

MAY 24 2002

THOMSON
FINANCIAL

Weizmann Science Park
P.O. Box 266
Rehovot 76100
Israel
(Address of principal executive offices)

Indicate by check mark whether the registrant files or will file annual reports under cover 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 furnishing the information to the Commission pursuant to Rule 12g3-2(b) under the Securities and Exchange Act of 1934.

Yes _____ No

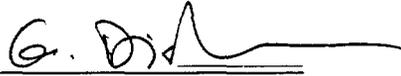
Attached hereto as Exhibit 1, and incorporated by reference herein, is the press release, dated May 8, 2002 of Nova Measuring Instruments Ltd. (the "Registrant"), relating to the First Quarter 2002 Results.

SIGNATURE

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

NOVA MEASURING INSTRUMENTS LTD.

May 8, 2002

A handwritten signature in black ink, appearing to read 'G. Dishon', written over a horizontal line.

Giora Dishon, President
and Chief Executive Officer



Company Contact:
Chai Toren, Chief Financial Officer
Nova Measuring Instruments Ltd.
Tel: 972-8-938-7505
E-mail: info@nova.co.il
<http://www.nova.co.il>

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Company Press Release

Nova Measuring Instruments Reports First Quarter 2002 Results

Rehovoth, Israel, - May 8, 2002 - Nova Measuring Instruments, Ltd. (Nasdaq: NVMI), today reported financial results for the first quarter ended March 31, 2002.

Revenues for the first quarter were \$4.0 million, representing an 11% increase sequentially over revenues of \$3.6 million for the fourth quarter of 2001 and compared with \$9.3 million reported for the first quarter of 2001. Net loss for the quarter, including a \$1.5 million one-time expense for purchasing technology, was \$(4.9) million, or \$(0.34) per share. Excluding this one-time expense and stock-based compensation, net loss for the first quarter was \$(3.1) million, or \$(0.21) per share. This is compared to a net loss of \$(3.3) million, or \$(0.23) per share, in the previous quarter, and compared to a net loss of \$(2.3) million reported for the comparable period last year.

Gross profit for the quarter was \$1.3 million (32% of revenues), compared with a gross profit of \$0.6 million in the fourth quarter of 2001 and gross profit of \$3.5 million reported for the comparable period in 2001.

The Company continues to maintain all of its major R&D and sales activities and is also supporting the advanced stages of several beta testings of the new products. R&D net expenses were \$2.8 million, compared to \$2.4 million in the previous quarter. Sales and marketing expenses were \$1.6 million, compare with \$1.4 million in the previous quarter.

First quarter 2002 results include stock-based compensation expenses of \$363,000. Excluding those expenses and the \$1.5 million one-time expenses for purchasing technology, net loss was \$(3.1) million, or \$(0.21) per share.

The Company's balance sheet remains strong, with cash and short-term investments of \$43.5 million, and net working capital of \$41 million, as of March 31, 2002.

The Company maintained its high market share in the Integrated Process Control (IPC) market, and enhanced its cooperation, as well as strategic alliances, with the major Process

Equipment Manufacturers, to coordinate the development, marketing and sales of its integrated monitoring systems. The Company's continuing investment in the new integrated products for Copper CMP, Photolithography and Etch provides very significant opportunities when the market begins to recover.

Commenting on the results, Dr. Giora Dishon, President and CEO of Nova said, "Taking into consideration current market conditions, we have made all necessary adjustments to our costs and operation levels without delaying any of our major development efforts for implementing new technologies and new integrated products. We see definite signs of recovery of the market, which will provide a significant opportunity for the sales of all our existing and new products that are directed towards the transition to 300mm manufacturing, the incorporation of smaller design rules (0.13 and below), and copper/low-K processing. We are in the final stages of several beta tests and evaluations of our new products in major customer sites. The cooperation with the major Process Equipment Manufacturers along with leading IDM manufacturers in these evaluations strengthens our confidence in the Company's long-term prospects."

Dr. Dishon added, "Integrated Process Control is today a major trend in semiconductor manufacturing, recognized by most companies and industry analysts. Our strong cash position allows us to develop and evaluate multiple new integrated systems on multiple types of process equipment in the major and most critical process steps such as CMP and photolithography. When the market ramps up, we shall be there with a wide range of product offerings to support our customers and ensure the Company's long-term growth."

About Nova:

Nova Measuring Instruments Ltd. develops, designs and produces integrated process control systems in the semiconductor manufacturing industry. Nova provides a broad range of integrated process control solutions that link between different semiconductor processes and process equipment. The company's web site is www.nova.co.il.

This press release may contain forward-looking statements, including statements related to anticipated growth rates, manufacturing capacity and tax rate. Actual results may differ materially from those projected due to a number of risks, including changes in customer demands for our products, new product offerings from our competitors, changes in or an inability to execute our business strategy, unanticipated manufacturing or supply problems, or changes in tax requirements. Nova cannot guarantee future results, levels of activity, performance or achievements. The matters discussed in this press release also involve risks and uncertainties summarized under the heading "Risk Factors" in Nova's Form F-1 filed with the Securities and Exchange Commission on April 9, 2000. These factors are updated from time to time through the filing of reports and registration statements with the Securities and Exchange Commission. Nova Measuring Instruments Ltd. does not assume any obligation to update the forward-looking information contained in this press release.

(Tables to Follow)

NOVA MEASURING INSTRUMENTS LTD.
INTERIM CONSOLIDATED STATEMENTS OF OPERATIONS
(U.S. dollars in thousands, except share and per share data)

	Three months ended	
	March 31, 2002	December 31, 2001
	(unaudited)	
REVENUES	3,998	3,617
COST OF REVENUES	2,713	3,041
GROSS PROFIT (LOSS)	1,285	576
OPERATING COSTS AND EXPENSES		
Research & Development expenses, net	2,758	2,436
Technology in use of R&D	1,478	-
Sales & Marketing expenses	1,605	1,352
General & Administration expenses	499	428
	6,339	4,216
OPERATING LOSS	(5,054)	(3,640)
FINANCING INCOME, NET	140	330
NET LOSS	(4,914)	(3,310)
Loss per share	(0.34)	(0.23)
 Comments:		
1. Employee Stock Based Compensation expenses	363	174
2. Shares for calculation of earnings (loss) per share		
Basic	14,651	14,627
Diluted	15,367	15,224
3. The adjusted results excluding Employee Stock Based Compensation & one time expenses:		
Gross Profit	1,329	597
Operating Expenses	4,524	4,063
Net Loss	(3,073)	(3,136)
Loss per share	(0.21)	(0.21)

NOVA MEASURING INSTRUMENTS LTD.
INTERIM CONSOLIDATED STATEMENTS OF OPERATIONS
(U.S. dollars in thousands, except share and per share data)

	Three months ended	
	March 31, 2002	March 31, 2001
	(unaudited)	
REVENUES	3,998	9,263
COST OF REVENUES	2,713	5,792
GROSS PROFIT (LOSS)	1,285	3,471
OPERATING COSTS AND EXPENSES		
Research & Development expenses, net	2,758	2,436
Technology in use of R&D	1,478	-
Sales & Marketing expenses	1,605	1,352
General & Administration expenses	499	428
	6,339	6,783
OPERATING LOSS	(5,054)	(3,312)
FINANCING INCOME, NET	140	1,027
NET LOSS	(4,914)	(2,285)
Loss per share	(0.34)	(0.16)
 Comments:		
1. Employee Stock Based Compensation expenses	363	611
2. Shares for calculation of earnings (loss) per share		
Basic	14,651	14,442
Diluted	15,367	15,372
3. The adjusted results excluding Employee Stock Based Compensation & one time expenses:		
Gross Profit	1,329	3,544
Operating Expenses	4,542	6,245
Net Loss	(3,073)	(1,674)
Loss per share	(0.21)	(0.12)

NOVA MEASURING INSTRUMENTS LTD.
INTERIM CONSOLIDATED BALANCE SHEET
(U.S. dollars in thousands)

	<u>As of March 31, 2002</u>	<u>As of December 31, 2001</u>
	<u>(unaudited)</u>	
CURRENT ASSETS		
Cash and cash equivalents	32,191	34,468
Short-term interest-bearing deposits	3,236	-
Marketable securities available for sale	6,984	6,984
Securities held to maturity	994	7,214
Trade accounts receivable	2,611	1,673
Inventories	3,870	4,313
Other current assets	1,199	1,389
	51,085	56,041
	1,521	1,545
SEVERANCE PAY FUNDS		
	2,063	1,978
FIXED ASSETS, NET		
	54,669	59,564
CURRENT LIABILITIES		
Trade accounts payable	2,765	2,687
Other current liabilities	7,377	7,825
	10,142	10,512
LIABILITY FOR EMPLOYEE TERMINATION BENEFITS & other long term liabilities		
	2,220	2,046
SHAREHOLDERS' EQUITY		
Share capital	46	46
Additional paid in capital	72,764	72,774
Deferred stock-based compensation	(1,669)	(2,073)
Accumulated other comprehensive loss	(703)	(524)
Accumulated deficit	(28,131)	(23,217)
	43,307	47,006
	54,669	59,564
	54,669	59,564

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