NOVA MEASURING INSTRUMENTS LTD Form 6-K January 15, 2013

UNITED STATES SECURITIES AND EXCHANGE COMMISSION Washington, DC 20549

FORM 6-K

REPORT OF FOREIGN PRIVATE ISSUER PURSUANT TO RULE 13a-16 OR 15d-16 OF THE SECURITIES EXCHANGE ACT OF 1934

January 15, 2013

Commission File No.: 000-30688

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

Building 22 Weizmann Science Park, Rehovot P.O.B 266 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 S Form 40-F £

Indicate by check mark if the registrant is submitting the Form 6-K in paper as permitted by Regulation S-T Rule 101(b)(1): _____

Indicate by check mark if the registrant is submitting the Form 6-K in paper as permitted by Regulation S-T Rule 101(b)(7): _____

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

Yes £ No S

Attached hereto and incorporated by way of reference herein are the slide presentations to be presented at the 15th Annual Needham Growth Conference in New York on January 15, 2013.

SIGNATURES

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. (Registrant)

Date: January 15, 2013

By: /s/ Dror David

Dror David Chief Financial Officer Investors Presentation Gabi Seligsohn, President & CEO Dror David, CFO January 2013

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Cautionary statement regarding forward-looking statements

This presentation includes statements that constitute forward-looking statements within the meaning of safe harbor provisions of the Private Securities Litigation Reform Act of 1995 relating to future events or our future financial performance, and involve known and unknown risks, uncertainties and other factors that may cause our actual results, level of activity, performance or achievements to be materially different than expressed or implied by these forward looking statements. You should not place undue reliance on forward-looking statements since they involve known and unknown risks, uncertainties and other factors which are in some cases beyond our control and which could materially affect actual results, level of activity, performance or achievements. These risks and other factors include but are not limited to: our dependency on two product lines; the highly cyclical nature of the markets we target; our inability to reduce spending during a slowdown in the semiconductor industry; our ability to respond effectively on a timely basis to rapid technological changes; our dependency on OEM suppliers; cyber security risks; risks related to open source technologies; our ability to retain our competitive position despite the ongoing consolidation in our industry; risks associated with our dependence on a single manufacturing facility; our ability to expand our manufacturing capacity or marketing efforts to support our future growth; our dependency on a small number of large customers and small number of suppliers; our dependency on our key employees; risks related to changes in our order backlog; risks related to the financial, political and environmental instabilities in Asia; risks related to our intellectual property; 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; changes in tax requirements; changes in customer demand for our products; risks related to currency fluctuations and risks related to our operations in Israel.

The matters discussed in this presentation also involve risks and uncertainties summarized under the heading "Risk Factors" in Nova's most recent Annual Report on Form 20-F filed with the Securities and Exchange Commission. These factors are updated from time to time through the filing of reports and registration statements with the Securities and Exchange Commission.

Any forward-looking statements contained in this presentation are made as of the presentation date and Nova Measuring Instruments Ltd. is under no obligation to revise or update these forward-looking statements. Certain of the information contained herein concerning economic trends and performance is based upon or derived from information provided by third party consultants and other industry sources. We have not independently verified and cannot assure the accuracy of any data obtained by or from these sources. Nova confidential & proprietary information Business highlights
— Pure player in the semiconductors optical metrology market, enjoying strong business fundamentals:
— Nova is exposed to the highest growing semiconductor applications serving industry leading manufacturers
— Nova continuously outperforms the industry
— Nova is entering the emerging market of 3D interconnect
— Strong balance sheet with over \$85M in cash reserves available to support the Company's growth plans Nova confidential & proprietary information Company overview 3 — Founded in 1993 - IPO in 2000 (NASDAQ - NVMI) — Headquarters: Rehovot, Israel — Global presence: — Asia Pacific -Taiwan, Korea, Singapore, China — United States, Japan and Europe — Employees: 370 — Active installed base >1200 systems — Listed on NASDAQ and Tel-Aviv Stock Exchange

Nova confidential & proprietary information Optical CD - leading and emerging technology Semiconductor Wafer Cross-Section View Using Electron Microscope Same View Using Optical CD Scatterometry View Integrated Circuit Die 4

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 5

 Process control for current and future technologies

 Nova's products portfolio

 SW
 SA

 NovaMARS
 SW Packages Fleet Management

 3D-IC
 IM

 TSV
 NEXT i500

Nova confidential & proprietary information 6 Well positioned in most critical segments 7 Memory: NAND: Design win 1Y (<10nm) DRAM: < 30nm Foundry: Ramping 28 nm. Design wins: 20,14,11 nm Source: Barclays, Needham 2012/3 Semi Market - Capital Spending Strong position with leading market spenders

Nova confidential & proprietary information 8 7 Well positioned in the right sectors Source: Gartner Foundry Revenue Source: Micron, Gartner NAND Outlook Capitalize on strong presence in memory once spending resumes Foundry revenues and spending will continue to grow

Nova confidential & proprietary information 8 Providing an excellent platform for further growth Nova's winning strategy Nova Optical CD Differentiation Cluster Best Reliability Highest Throughput Shortest Time to Solution **Best Solution** Quality Best Tool-to-**Tool Matching** Excellent Global Services * Process Equipment Manufacturers

Nova confidential & proprietary information 9 Expecting a further SAM increase of ~ \$100M for 3D-IC starting in 2013/14* Unification of the metrology market \$284M

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\$800M-\$900M Expansion of Nova's Addressable Market Thin Film Metrology Copper Metrology CD Metrology Source: Gartner, Yole Research & Company Estimates * Expected metrology and inspection SAM for 3D Integration Becoming a Unified Metrology Market - All Addressable by Optical

Nova confidential & proprietary information Optical CD - growing adoption rate 10 Source: Gartner Disruptive Technology to meet the industry's most difficult challenges

Nova confidential & proprietary information 11 Process control needs expand as geometries shrink Nova's TAM more than tripled 2009-2012 Wafer In Wafer Out 2013 Opportunity (<28nm) \$150M - \$200M Opportunity Implant Litho Etch CVD/EP CMP Notes: Company data. Based on Foundry with 100,000 wafer starts per month (updated 1/2013) <65nm \$30-40 M

Nova confidential & proprietary information 13 12 Nova Continuously Exceeds Industry Performance Nova significantly outperforms industry's 5 year CAGR (2011/2012: Nova -8% vs. Industry -17%) Source: * Nova Q4/2012 mid point guidance, Gartner Q4/2012, Needham & Co. Foundry Nova confidential & proprietary information 13 — Successful launch of Integrated and stand alone metrology: — NovaT600 - selected for 11nm/14nm/20nm at multiple foundries — Nova i500 - selected for 11nm/14nm/20nm/30nm at multiple memory and foundries — First shipment of 450mm tool to major PEM partner for early development — New product introduction for the 3D Interconnect market: — Multiple orders and installations at multiple customers — Several interactions with additional customers — Well positioned to take advantage once industry adopts in HVM Recent achievements Will continue to enhance our development and support capabilities for an expanding SAM Industry Review: 2012 and Beyond

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Excellent exposure to growing markets				
Source: Jeffries & Company, iSuppli Source: Gartner Q3/12				
Tablet				
Semiconductor	% of Tablet			
Content	BOM			
NAND Flash Memory	7%	Р		
Mobile DDR DRAM	7%	Р		
App Processor	5%	Р		
Baseband / RF	4%	Р		
Wi-Fi / BT	2%	Р		
Power Management	2%	Р		
Accelerometer	1%	Р		
Memory Controller	1%	Р		
Touch Controller	1%	Р		
GPS	<1%	Р		
Touch Screen Driver	<1%	Р		
Audio Codec	<1%	Р		
Expected Contribution to IC growth 2013				
16				
Share of Growth				
28.2%				
16.3%				
14.5%				
11.3%				
7.5%				
7.3%				
5.5%				
0.9%				
8.6%				

Nova confidential & proprietary information 16 70-100K WSPM* needed capacity increase for 28nm at foundries in 2013 Mobile Device Capacity needs for 2x Tech Nodes * WSPM - Wafer Starts Per Month Nova confidential & proprietary information Source: Intel, IDC, Company records Mobile revolution continues to gain traction 17 High performance low power - new chip designs are the enablers 3D Gates for foundries 3D Gates for Flash OCD - the only way to measure and control Nova 2012 and beyond

Nova confidential & proprietary information 19 The need: Low power high performance 3D technology driving Nova application growth 3D Devices **Planar Transistor 3D** Transistor Requires significant increase in number of Etch and CMP layers Multi-Chip Packaging with TSV 3D IC Integration Single Chip 2010 2012 onwards Nova introducing novel TSV metrology solution in time for transition to production

Nova confidential & proprietary information Strategy for taking Nova to the next level Nova will continue its strategy of investing in creating future growth opportunities Short Term Continue to enhance infrastructure and customer technology Strong end market position and excellent technological collaboration with leading PEM's -28nm ramp up at foundries and 20nm at NAND production sites - Transition to 3D gates Optical CD the ONLY way to measure and control Mid Term Long Term - Critical etch steps requiring closer monitoring leading to enhanced transition to IM for etch — Gradual move to 3D interconnect by all leading customers, and ramp up during 2014 -20nm ramp up in foundries - Transition to 450mm by 6 leading customers expected to start 2015/16 onwards — IM use expected to significantly extend given wafer cost and process complexity 20

Nova confidential & proprietary information Product strategy drives high margins Financial performance 21 Continuously adding feature and functionality for customer benefit

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Revenues	FY2011 \$103M		Target Model		
Total Revenues	100%	100%			
Products Revenues	83%	80%			
Services Revenues	17%	20%	15% - 20%		
Total Gross Margins	56%	54%	55%		
Products Gross Margins	61%	60%	58%+		
Services Gross Margins	36%	30%	30%+		
Total Operating Expenses	32%	42%	30% - 35%		
R&D, net	18%	26%	16% - 19%		
SG&A	14%	16%	14% - 16%		
Operating Margin	24%		20% - 25%		
Financial model					
Long - term effective tax rate ~ 15%					
* 2012 Forecast - based on mid range of Q4/12 guidance					

Nova confidential & proprietary information 23 Providing an excellent platform for further growth Ability to continue growth is well founded Litho Etch CVD/EP CMP Further Growth Accelerating Op CD Adoption Outpacing industry growth rate Expanding Fab footprint Industry Mid cycle behavior Well positioned where money will be spent New strategic Initiatives 3D-IC market; 450mm New Products and features **Expanded Customer Base** Turning penetrations into multitool accounts