

NOVA MEASURING INSTRUMENTS LTD  
Form 6-K  
March 11, 2013

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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

March 11, 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  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 presented at Investors' Conference in Tel Aviv on March 11, 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: March 11, 2013

By: /s/ Dror David

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Dror David  
Chief Financial Officer

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Investors Meeting

Tel-Aviv Stock

Exchange

Gabi Seligsohn, President & CEO

Dror David, CFO

March 11, 2013

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- Brief Company background
    - FY 2012 summary
    - Industry's main drivers
    - Developing new horizons
  - Nova & the market - 2013 & beyond
    - Summary
- Meeting Outline
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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.

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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 \$90M in cash reserves available to support the Company's growth plans

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Company overview

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- 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
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Optical CD - leading and emerging technology  
Semiconductor  
Wafer  
Cross-Section  
View Using Electron  
Microscope  
Same View Using  
Optical CD  
Scatterometry  
View  
Integrated  
Circuit Die  
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Process control for current and future technologies

Nova's products portfolio

SW

NovaMARS SW Packages Fleet Management

SA

NEXT T500 T600

3D-IC

TSV

IM

NEXT i500

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Well positioned in most critical segments

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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

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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

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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

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Optical CD - growing adoption rate

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Source: Gartner

Disruptive Technology to meet the industry's most difficult challenges

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FY 2012  
Summary and  
Q1/13 Guidance

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2012 - a year with many achievements

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- Proliferating previously announced products and launching new ones:
  - T600, i500 and NovaMARS adopted by all key customers for advanced tech nodes down to 11nm
  - Ground breaking announcement of V2600 for 3D interconnect yielded 4 customers in 6 months
    - Shipping our first 450mm tool to key PEM for early development efforts
  - R&D efforts deliver high productivity solutions that support our business model:
    - Significant increase in number of IM tools shipping with OCD SW
      - Extensive deployment of NovaMARS modeling SW
    - Achieving remarkable gross margin profile even while introducing new products
  - Excellent financial performance during 2012 even as we increased R&D spending:
  - Revenues of \$96.2M ; non-GAAP net income of \$14.2M; gross margin 53%; cash >\$90M
    - Foundry represented 75% of revenues
  - Finishing Q4 at high end of revenue guidance as a result of operational efficiency
  - Temporary reduction in Q4 gross margin to 50% - expect to be back on track in Q1/13
- Strong bookings during Q4 provide good momentum for 2013
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Nova - Best start for the year

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Nova Q1/13 Guidance - \$25M-\$27M  
non GAAP EPS of \$0.09-\$0.13

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Industry's Main  
Drivers

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Excellent exposure to growing markets

Source: Jeffries & Company, iSupply Source: Gartner Q3/12

Tablet Semiconductor Content	% of Tablet BOM	
NAND Flash Memory	7%	P
Mobile DDR DRAM	7%	P
App Processor	5%	P
Baseband / RF	4%	P
Wi-Fi / BT	2%	P
Power Management	2%	P
Accelerometer	1%	P
Memory Controller	1%	P
Touch Controller	1%	P
GPS	<1%	P
Touch Screen Driver	<1%	P
Audio Codec	<1%	P

Expected Contribution to IC growth 2013

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Share of Growth

28.2%

16.3%

14.5%

11.3%

7.5%

7.3%

5.5%

0.9%

8.6%

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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

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Source: Intel, IDC, Company records  
Mobile revolution continues to gain traction

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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

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- The US fiscal cliff is still ahead of us
- The ECB is taking some responsibility but can't fix broken economies
  - China's GDP growth has tempered and India is slower too
  - The world is all about "playing delay" and not paying debts
    - PC sales have seen a significant decline
  - Mega electronic food chain trends miraculously still seem robust:
    - Smart phone sales continue to increase - price range of \$60-\$580
- Tablet sales are cannibalizing PC sales - "Surface" concept for corporate?
  - Cloud investments on the rise - looking for cheap infrastructure

The global economy and the electronic food chain

The Environment Entering 2013

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- Very tough to meet yield requirements at <28nm
- Customers are having to work in parallel on ~6 generations
  - This is something we never experienced
  - The cost and risks are HUGE - a multibillion \$ game
    - The process complexities continue to rise
    - The OEM equipment is barely meeting the specs
- It's like playing a guessing game of when and where will your fab win
  - Apple related business
    - The opportunities are also HUGE - tsmc capital intensity 50%!

Our customers

The Environment Entering 2013

Customers demand extendable high end solutions from all vendors

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- Time interval between advanced technology nodes is decreasing
- Chip manufacturers are developing multiple tech-nodes in parallel
  - All are fighting for a limited customer base - Intel joining the race (Altera announcement)
  - Equipment vendors need to enhance R&D to keep up with customer requirements

Growing Pace of Technology Development

\* Source: Publicly available information

Or: The Race to FinFet

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- Modeling complexity and measurement precision increases by tech node:
  - More investment in future products is needed to properly address the market
  - Metrology TAM grows as number of metrology steps per tech node increases
- Huge Optical Metrology Opportunity
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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

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Nova Continuously Exceeds Industry Performance

Nova significantly outperforms industry's 5 year CAGR

(2011/2012: Nova -10% vs. Industry -17%)

Source: \* Nova 2012 product revenues, Gartner WFE Q4/2012, Needham & Co.  
Foundry

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Nova's Solid Growth Strategy

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Execution continues to drive success

Expanding

Product

Portfolio

Increased

Fab Footprint

Displacing

Traditional

Metrology

Integrated and

Standalone Metrology;

Software

4 Process Steps

2012E TAM =

\$700M

2006 TAM = \$100M

1-2 Process Steps

Integrated Metrology

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Product strategy drives high margins  
Solid Financial performance

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Enabling the needed investments in advanced technology

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Nova and the  
market  
2013  
and beyond

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— 2013 outlook

— Expecting WFE to be 0% to down 5%

— Foundry/Logic - spending increase - ramping demand for leading edge mobility à all major players continue to invest in capacity increase for 28/20nm nodes and development of 16/14nm nodes

— Memory - no major growth (VNAND difficulties & PC market)

Wafer Fab Equipment 2013 Outlook

Expected spending by major players

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Market Expectations for 2013

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- Foundry 28nm ramp up is still under way:
  - Significant capacity insufficiency - expecting an addition of 70,000-100,000 wafer starts per month
  - Smartphone market remains key driver for 28nm node with several trends driving growth:
    - Windows 8 proliferation; Nokia Lumia; Blackberry 10
    - 2.5G smartphones in China for a mass market
      - And, overall market share battles
  - Foundry 20nm ramp to start towards end of H1/13 and deep into 2014:
    - Extent of ramp up during H2/13 still not clear
      - Spells big business for Nova
      - OCD is an enabling technology
    - Memory customers focused on achieving desired yield numbers:
  - Next generation DRAM and NAND flash depend on significant gate design changes
    - OCD is a key component
    - Nova is actively engaged in these customer efforts
    - Memory to remain weak at least throughout H1/13
    - Expecting foundry to remain robust 2013-2014
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Nova's plans for 2013

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- Strategic software development team:
    - Developing multiple new products to extend differentiation and strategic position with customers and PEM partners
  - Products include productivity enhancements, modeling capabilities and novel approaches to process control
  - Strong support to our profitability model - expect initial revenues by EO/13
    - 3D interconnect:
      - Continue to focus on expanding penetration
      - Leverage footing at 4 accounts into several others
  - Ultimately expecting a \$100M SAM increase once industry moves to HVM
    - 450mm - continue early collaborations to secure long term position
    - Continue to expand product offering for larger opportunity
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- The cost associated with retaining a competitive position is rising
- New technology horizons are critical - delivery in the present
- Customers depend on innovation - not just to satisfy their curiosity

What does it mean to Nova?

Developing New Horizons in Stormy Waters

Shooting for a step function in the role we play for our strategic customers

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  - New Horizons - what does it take
  - The elephants' trail is crowded
    - Working assumption: mature industry
    - Implication: scarce opportunities for secular growth
  - Look for disruptive technologies - attain a diverse tech portfolio
    - Look for enabling technologies
    - High value/high technology = high ASP/high margins
    - These rules apply for organic and inorganic growth
    - Only one elephant fits through the front door
- WE NEED SOMETHING DIFFERENT
-

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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

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— This market segment represents \$30M-\$80M new business potential for Nova  
in the coming years - with significant software content!

New Market being developed by Nova

\* Source: Gartner and company data

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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  
advanced IPC 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

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Revenues	FY2011 \$103M	2012 \$96M	Target Model
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Total Revenues	100%	100%	
Products Revenues	83%	80%	
Services Revenues	17%	20%	15% - 20%

Total Gross Margins	56%	53%	55%
Products Gross Margins	61%	59%	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%	11%	20% - 25%
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Financial model

Long - term effective tax rate ~15%

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- The foundry “Arms Race” is in full swing and the stakes are high
  - The move to FinFet (3D gates) is focused on 14nm
  - Demand for high end low power devices is solid
- The 28nm ramp up continues in 2013 and 20nm will run well into 2014
  - We expect two strong years for foundry
- Memory spending will resume once technology challenges are overcome and market conditions improve
  - Nova is very well positioned to capture these opportunities
- We will continue to develop our capabilities to best serve our customers

Summary

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Providing an excellent platform for further growth

Nova's 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

NG IPC

Expanded Customer Base

Turning penetrations into multi-

tool accounts