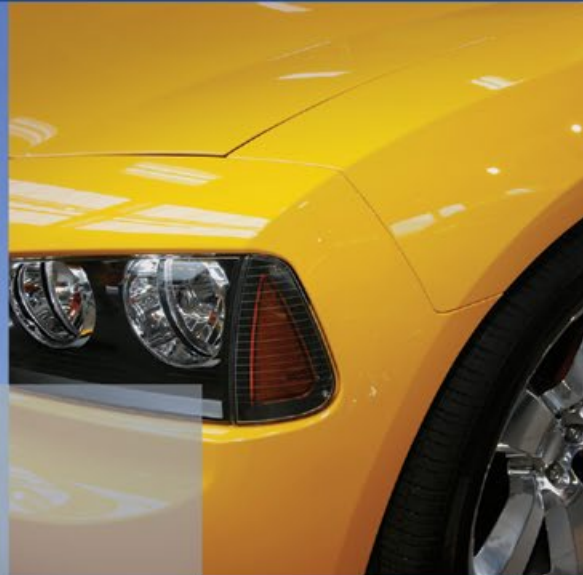
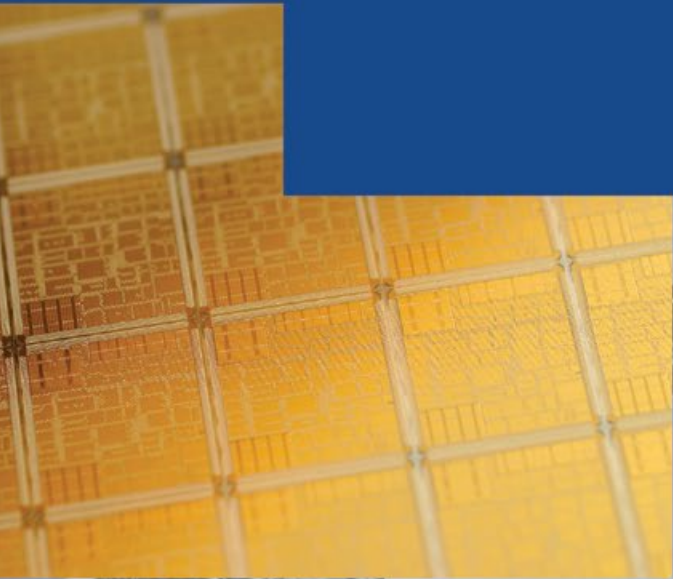




# materials

that matter.



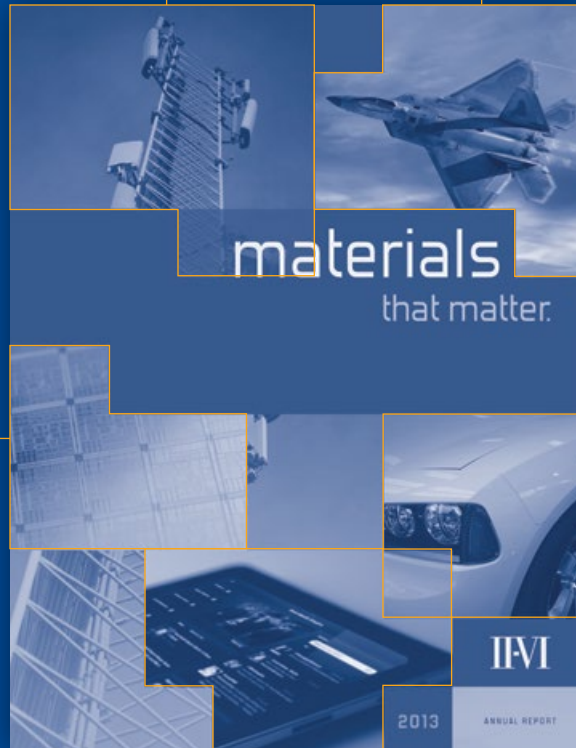
IMI

2013

ANNUAL REPORT

II-VI's optical materials are essential for optical communication systems that carry digital voice and data over wireless networks around the world and to your smart phone.

II-VI's high-precision optical assemblies, systems and components are critical materials in our customers' advanced military platforms such as fighter jets, missiles and unmanned aerial vehicle weapon systems, contributing to our national defense.



II-VI's reaction bonded silicon carbide and other advanced materials have been designed into the platforms of semiconductor equipment that supports next-generation extreme ultraviolet lithography systems for advanced integrated circuit chip production.

II-VI's industry-leading zinc selenide laser optics and components enable CO<sub>2</sub> laser systems to operate at peak performance as automobile manufacturers produce the vehicles that are vital to our everyday lives.

II-VI's photonic crystal materials are the building blocks for optical communication that enables end users' access to the Internet to stream music, video and other information on their portable electronic devices.

## about II-VI

II-VI Incorporated, a global leader in engineered materials and opto-electronic components, is a vertically integrated manufacturing company that develops products for diversified markets, including industrial manufacturing, optical communications, military, high-power electronics, thermoelectronics applications and semiconductor substrates. Headquartered in Saxonburg, Pennsylvania, with manufacturing, research and development, and sales and distribution facilities worldwide, the Company produces numerous crystalline compounds, including zinc selenide for infrared laser optics, yttrium vanadate for passive optical components for optical communications, germanium for military infrared applications, bismuth telluride for thermoelectric coolers, and high-precision ceramic and metal-matrix composite components used in LCD manufacturing, semiconductor equipment and optics applications.

For the year ended June 30

2013

2012

(5000 except per share data)

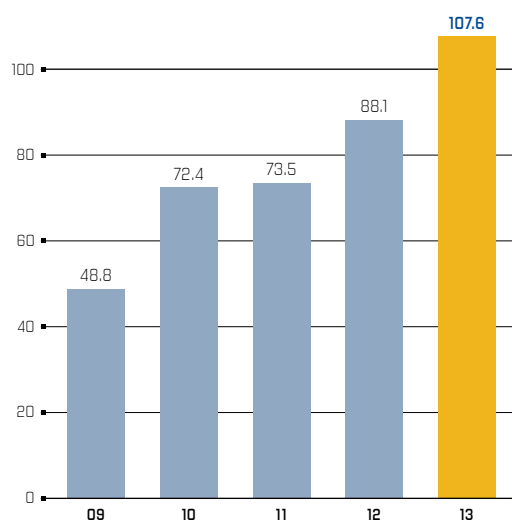
Bookings	\$ 527,237	\$ 534,865
Revenues	\$ 558,396	\$ 534,630
Net earnings attributable to II-VI Incorporated	\$ 50,813	\$ 60,306
Diluted earnings per share	\$ 0.80	\$ 0.94

As of June 30

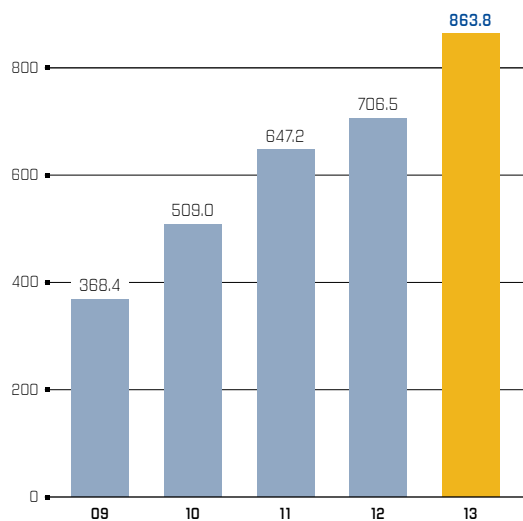
Total assets	\$ 863,802	\$ 706,486
Total shareholders' equity	\$ 636,108	\$ 586,226
Working capital	\$ 366,710	\$ 326,645



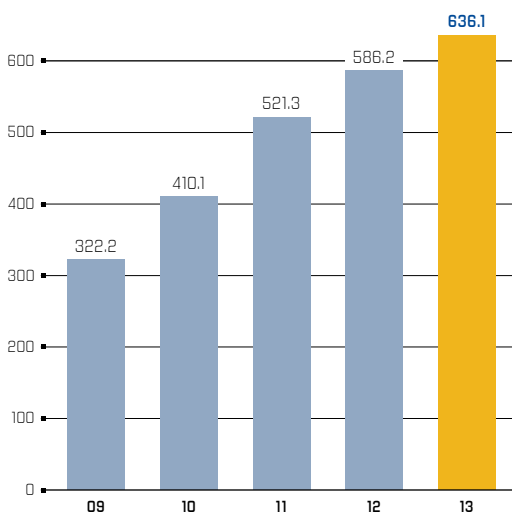
**Net Revenues**  
(5 in millions)



**Cash Flow from Operations**  
(5 in millions)



**Total Assets**  
(5 in millions)



**Total Shareholders' Equity**  
(5 in millions)



## Dear Fellow Shareholders:

For II-VI Incorporated, fiscal 2013 was a challenging yet rewarding year. Our financial performance was below our standards as we continued to be impacted by raw material pricing volatility and cautious consumption patterns from certain customers. Despite these obstacles, we continued to strengthen our core competencies as a global leader in engineered materials and opto-electronic components by achieving several significant initiatives. We believe that these accomplishments will help fuel future growth, maintain our focus on what we do best, and enable us to continue to produce materials that matter.

Some noteworthy fiscal year 2013 milestones included the following:

- > We generated record revenues of \$558 million, a 4% increase over previous record revenues from last fiscal year.
- > We established a new record cash flow from operations of \$108 million, a 22% increase over last fiscal year's record level.
- > We ended the fiscal year with \$185 million in cash and cash equivalents, the highest level in the history of the Company.
- > We completed a \$25 million share repurchase program, our largest such program ever.
- > We completed the Company's most active year for acquisitions by acquiring three strategic, material-based businesses that will make contributions to our planned growth.
- > We resized our Pacific Rare Specialty Metals & Chemicals, Inc. (PRM) business unit to reduce exposure to volatility in minor metal commodity prices, while creating a platform for sustained shareholder value.
- > We acquired the remaining 25% equity of HIGHYAG Lasertechnologie, GmbH, (HIGHYAG) in July 2013, moving HIGHYAG from a majority-owned subsidiary to a wholly-owned subsidiary.

- > We appointed our first Chief Technology Officer to help drive new product introductions while coordinating the external and internal research efforts of our multiple businesses.
- > We completed our 41st consecutive year of profitability.

The three acquisitions of fiscal 2013 were M Cubed Technologies, Inc. (November 2012); the Thin Film Filter business and Interleaver product line from Oclaro, Inc. (December 2012), and LightWorks Optics, Inc. (December 2012). Each of these acquisitions has expanded our engineered material business portfolio into new and exciting technologies and markets. We are focusing on optimizing the synergies available through these acquisitions in both material and process technologies that will enable us to launch new product developments across our businesses.

After careful and deliberate evaluation of our long-term strategy for enhancing shareholder value, we announced that our PRM business within our Military & Materials segment will discontinue its tellurium product line, downsize its selenium product line to eliminate selenium chemical products while continuing to supply our Infrared Optics business unit with selenium metal, and remain focused on rare earth element refining. These changes will allow us to capitalize on the strengths of PRM, reduce the unit's operating losses and focus on the strategy that originally drove our acquisition of PRM in 2007: to become the strategic supplier of selenium material to our Infrared Optics business.

The military portion of our business remains strong, and despite uncertainties surrounding the U.S. government's planned military spending, we are targeting this business to grow in fiscal year 2014. Paramount to this growth strategy has been the merger of Exotic Electro-Optics and our recently acquired LightWorks Optics, Inc. to form LightWorks Optical Systems. We expect

that this merger will accelerate the synergies between these two groups and will strengthen our design, engineering and production capabilities to meet our customers' needs for complex optical solutions in the defense, aerospace, life science and commercial markets.

Regarding the recent acquisition of M Cubed, we are excited about our ability to leverage existing process technology and high-precision material capabilities to capitalize on opportunities in the emerging semiconductor technology of extreme ultraviolet (EUV) lithography. While the majority of the lithography systems in the semiconductor industry today still utilize 300 mm diameter substrates, EUV lithography systems will require larger, more cost-effective 450 mm diameter wafers. M Cubed's ability to produce high-precision ceramic materials of varying shapes and sizes provides a great platform for manufacturing products on these next-generation wafers. We look forward to using our resources and making increased research and development investments to take advantage of this exciting new opportunity.

We believe that II-VI is positioned for success in fiscal 2014, and we will continue to grow II-VI to deliver increased shareholder value. On behalf of the board of directors, our management and our employees worldwide, we thank you for supporting our Company.



Francis J. Kramer  
*President and Chief Executive Officer*

September 6, 2013

materials that matter:

zinc selenide, zinc sulfide, CVD diamond

These materials are a key part of our industry-leading vertically integrated process that produces CO<sub>2</sub> laser optics and parts, which are critical components of CO<sub>2</sub> laser systems deployed around the world. Over the years, our talented team of scientists and engineers has developed world-leading expertise by adapting to change through innovation in the areas of material growth, thin-film coating, precision diamond turning and finished optics fabrication. The ability of our team to transform these raw materials into finished laser optics, lenses, windows and optical components is unmatched around the globe and allows CO<sub>2</sub> laser OEMs to secure a supply of the highest quality and most efficient laser optics available.

As the worldwide installed base of over 65,000 CO<sub>2</sub> laser systems continues to grow, our business of supplying critical replacement optics remains an integral part of II-VI. With improving economic sentiment, demand for durable goods such as cars, appliances and other industrial products

will drive laser utilization to higher levels, thus increasing the need for our replacement optics and components. Fiscal 2013 also yielded exciting growth opportunities in sales of scan lens optics. These optics are used for via hole drilling in circuit boards for high-volume markets such as cell phone electronics and enable CO<sub>2</sub> lasers to drill large numbers of hair-diameter holes in a circuit board quickly and accurately.

We are excited about expanding our presence in the one-micron fiber laser market through our purchase of the remaining ownership of our HIGHYAG subsidiary. As this business is now 100% owned by II-VI, we are focused on opportunities to invest in its workforce, capital expansion, and research and development activities. We have already begun to support these initiatives, as a planned move into a larger facility at the end of calendar year 2013 will help streamline production and build capacity as we continue to experience growth in one-micron welding and cutting heads for fiber laser systems.



CVD Diamond substrates position II-VI for the next generation of semiconductors and other strategic markets

Diamond has always been of interest to engineers and material scientists because of its extreme hardness and strength, high thermal conductivity, low thermal expansion, excellent dielectric properties, resistance to chemical attack, and optical transmission over a wide spectral range. We produce one of the highest quality polycrystalline CVD diamond substrates in the market in our state-of-the-art growth fabrication facilities. The diamond is grown using a plasma-assisted chemical vapor deposition (CVD) process, laser-cut to the required dimension and finished to customer specifications. We continue to invest in our diamond manufacturing capacity in anticipation of supplying the emerging semiconductor technology known as extreme ultraviolet (EUV) lithography. We also envision diamond as the material of choice for use in high-energy microwave windows, radiation detectors for particle physics and thermal management solutions in high-performance electronics or lasers.

CVD Diamond Material

materials that matter:

## yttrium vanadate, yttrium lithium fluoride, yttrium aluminum garnet

These materials are the essential optical building blocks for the systems that carry digital voice and data over fiber and wireless networks around the world. Worldwide communication networks are growing rapidly, reaching new populations in remote areas. Bandwidth continues to increase signal speed, scaling up from 40G to 100G as higher numbers of digital consumers want access to Netflix, iTunes, YouTube and other content-rich applications for their computers and smart phones. These demands are what help contribute to the growth of the Near-Infrared Optics segment of II-VI. In fiscal 2013, we continued investing in research and development in support of the transition from 40G to 100G technology. In particular, we are focusing our efforts on high-end components and module products to satisfy high-speed network requirements. In addition, we continued to invest in new product development of high-performance

flexible bandwidth optical channel monitors and high-power fiber laser couplers and combiners. Other noteworthy accomplishments during fiscal 2013 were as follows:

- > Photop Aegis fully recovered from a flood that crippled its main contract manufacturer in Thailand during 2011. Production capacity was rebuilt at Photop in China on an accelerated timetable.
- > Growth for Near-Infrared was partly driven by new product penetration in the data center and life sciences markets and expansion in the enterprise network and datacom markets.
- > We acquired Photop Advanced Coating Center, solidifying our lead as a supplier of thin-film filters and expanding our product offerings in the life sciences market.

### Acquisition of Photop Advanced Coating Center and Interleaver Product Line diversifies and expands Photop's global footprint

In December 2012, the Company purchased the Thin-Film Filter business and Interleaver product line of Oclaro, Inc. These businesses now operate as part of the Company's Photop business unit and are referred to as Photop's Advanced Coating Center, or "PACC." PACC designs and manufactures thin-film filter optical chips and products for optical communications, life sciences and industrial applications. The acquisition has helped expand the global footprint of Photop and contribute to the diversification of its products through penetration into the growing life sciences market. In addition, PACC also solidifies Photop as a worldwide market leader in the production of thin-film filter optical component products by delivering distinct technological advantages and processing capabilities.



Thin Film Filters



materials that matter:

germanium, sapphire

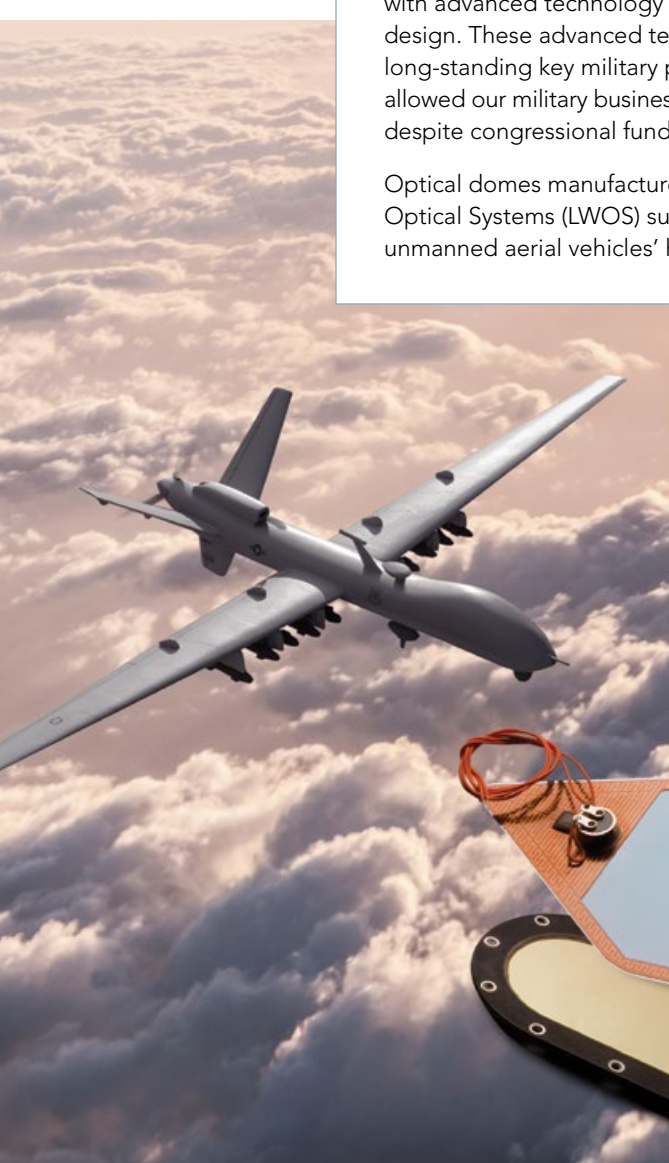
These materials are used to produce optical modules, windows, systems and assemblies that are key components of advanced military platforms in the areas of targeting, navigation, night vision and Homeland Security.

Today's defense situations require split-second decision making with unassailable accuracy. Defense systems — air, sea and ground — depend on sophisticated optical components to detect, identify and target threats. Our vertically integrated Military & Materials business unit meets these demanding requirements routinely with advanced technology and reliable product design. These advanced technologies support long-standing key military programs and have allowed our military business to continue growing despite congressional funding sequestration.

Optical domes manufactured by our LightWorks Optical Systems (LWOS) subsidiary support unmanned aerial vehicles' highly sophisticated

vision needed to carry out missions remotely, displacing more expensive manned aircraft. Sapphire windows manufactured by LWOS are part of what gives the Joint Strike Fighter's targeting system its ability to find and destroy targets with greater precision and at greater standoff distance than any other targeting system. Our Max Levy Autograph subsidiary produces electro-magnetic gridding that is applied to the windows and other surfaces of the F-35. This technology is used to counter electronic interference generated by the enemy and to make the aircraft nearly invisible to radar detection.

Despite uncertainties surrounding the U.S. government's planned military spending, we are optimistic about this business in fiscal year 2014 and expect to capitalize on the synergies of the business units that comprise II-VI's military operations.



Acquisition of LightWorks Optics strengthens our military product portfolio

In December 2012, the Company acquired LightWorks Optics, Inc. (LightWorks), located in Tustin, California. LightWorks and the Company's Exotic Electro-Optics merged to form LightWorks Optical Systems (LWOS), a leading provider of high-precision optical assemblies, systems and components. Their products are being deployed on military platforms such as fighter jets, unmanned aerial vehicles (UAVs),

missiles, tanks and submarines. The award-winning design, engineering and production capabilities of this new capability are meeting the complex optical needs of customers not just in the military but in life science and commercial industries as well.

Germanium-Based Products



materials that matter:

## reaction bonded silicon carbide and boron carbide, silicon carbide, bismuth telluride

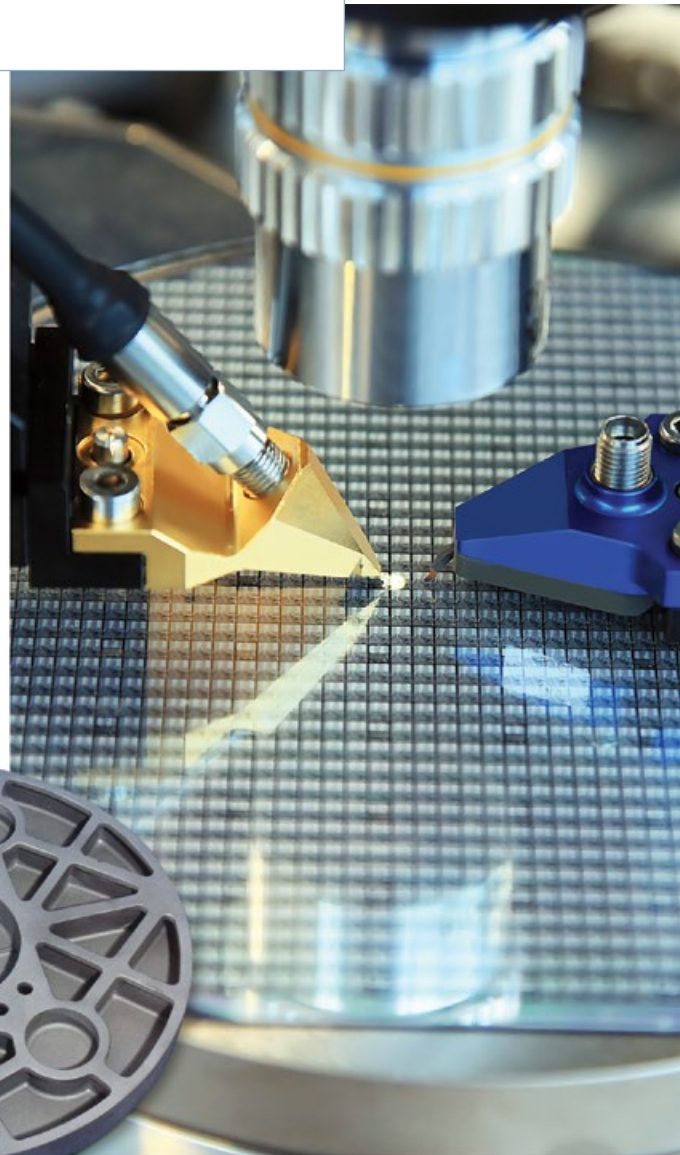
Materials from our Advanced Products Group extend the limits of what technology can do. Bismuth telluride used in thermoelectric cooling technology from our Marlow subsidiary helps keep the Hubble Space Telescope functioning. Silicon Carbide substrates from WBG are used to support applications operating under the restraints of high temperature, high power and high frequency. Advanced ceramic and composite materials such as reaction bonded silicon carbide and boron carbide from our M Cubed subsidiary are used in a variety of semiconductor, display, defense and industrial applications.

Our Marlow subsidiary began participation in a promising new market in fiscal 2013 with a solid-state cooling application for the personal comfort market. In a new twist on the idea of the electric blanket, Marlow's thermoelectric cooling technology is now available in personal bedding solutions for a cooler, more comfortable night's sleep. Large-scale manufacturing at Marlow's plant in Vietnam will help contribute to the profitability of this new product line due to our low cost structure.

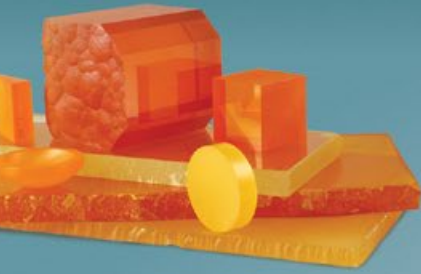
### M Cubed Technologies adds the strength of composites and ceramics to II-VI

In November 2012, the Company acquired M Cubed Technologies, Inc., a U.S.-based manufacturer of advanced ceramic materials and precision motion control products. M Cubed uses Metal Matrix Composites (MMCs) and Reaction Bonded Ceramics for applications in the semiconductor, display, industrial, defense and other markets that require precision, light weight, strength and hardness. This is especially true in semiconductor tool applications that must meet the need for increased tolerances, enhanced thermal stability, faster wafer transfer speeds and increased yields. M Cubed's industry-leading sizing and shaping capabilities, combined with its precision machining, motion system assembly and nano-scale metrology capabilities, will be valuable contributors to our Advanced Products Group. Of special interest is M Cubed's ability to produce high-precision ceramic material of varying shapes and sizes, which provides a great platform for manufacturing products on next-generation 300 and 450 mm diameter silicon wafers produced through deep ultraviolet (DUV) and extreme ultraviolet (EUV) lithography. M Cubed products are found in multiple applications in display and semiconductor fabs, including lithography, inspection, metrology and repair. As an engineered materials company, M Cubed is a good fit with the II-VI family of businesses. Its materials technology and unique process knowledge should help develop value-added and cost-effective product solutions for OEM markets.

Silicon Carbide  
Wafer Chuck



# INFRARED OPTICS



**165,000 new automobiles are produced every day.**

Source: Worldometers Realtime World Statistics.

## Engineered Materials:

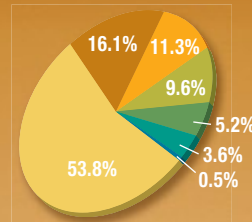
- Zinc Selenide
- Zinc Sulfide
- Zinc Sulfide Multi Spectral
- CVD Diamond

## Worldwide Automobile Production:



Source: Worldometers Realtime World Statistics.

# NEAR-INFRARED OPTICS



## Internet Population Growth (2007-2012)

- Asia
- Europe
- Latin America
- North America
- Oceania/Australia
- Africa

Source: Internet World Stats.

## Engineered Materials:

- Yttrium Aluminum Garnett
- Yttrium Lithium Fluoride
- Yttrium Vanadate



**There are over 6.8 billion mobile phones in use around the world.**

Source: Wikipedia

IA																IIA																IIIB																IVB																VB																VIB																VIIB																VIIIB																VIII																IIIA																IVA																VA																VIA																VIIA																VIII																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																															
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Hydrogen																Lithium																Beryllium																Sodium																Magnesium																Potassium																Calcium																Scandium																Titanium																Vanadium																Chromium																Manganese																Iron																Cobalt																Nickel																Copper																Zinc																Gallium																Germanium																Arsenic																Selenium																Bromine																Krypton																Rubidium																Strontium																Yttrium																Zirconium																Niobium																Molybdenum																Technetium																Ruthenium																Rhodium																Palladium																Silver																Cadmium																Indium																Tin																Antimony																Tellurium																Iodine																Xenon																Caesium																Barium																Lanthanum																Hafnium																Tantalum																Tungsten																Rhenium																Osmium																Iridium																Platinum																Gold																Mercury																Thallium																Lead																Bismuth																Polonium																Astatine																Radon																Francium																Radium																Actinium																Rutherfordium																Dubnium																Seaborgium																Bohrium																Hassium																Meitnerium																Darmstadtium																Roentgenium																Ununbium																Ununtrium																Ununquadium																Ununpentium																Ununhexium																Ununseptium																Ununoctium															



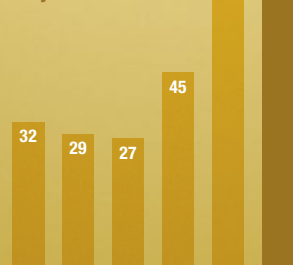
- Business Units:**
- IR Optics
  - Near-IR Optics
  - M&M
  - APG

Sapphire is the hardest material next to diamond with the required optical transmission properties, making it the preferred choice for windows used in harsh environments for infrared targeting applications.

## Engineered Materials:

- Germanium
- Sapphire

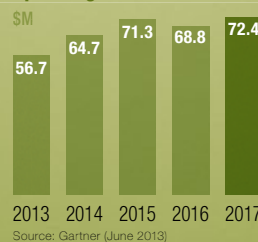
## U.S. F-35 Joint Strike Fighter Production Projections:



Total Projected U.S. Procurement: 2,457 Aircraft through 2037

Source: 2014 President's Budget and March 2013 GAO Report to Congress.

## Worldwide Semiconductor Manufacturing Equipment Spending Forecast



Source: Gartner (June 2013)

## Engineered Materials:

- Bismuth Telluride
- Silicon Carbide
- Reaction Bonded Silicon Carbide
- Reaction Bonded Boron Carbide

Unique electronic, mechanical and thermal properties of Silicon Carbide make it ideally suited for electronic devices that operate at high temperature and high power.



# MILITARY & MATERIALS

# ADVANCED PRODUCTS GROUP

**United States**  
SECURITIES AND EXCHANGE COMMISSION  
Washington, D.C. 20549  
**FORM 10-K**

- Annual Report pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 for the fiscal year ended June 30, 2013**
- Transition report pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 for the transition period from \_\_\_\_\_ to \_\_\_\_\_.

**Commission File Number: 0-16195**

**II-VI INCORPORATED**

(Exact name of registrant as specified in its charter)

PENNSYLVANIA  
(State or other jurisdiction of  
incorporation or organization)

25-1214948  
(I.R.S. Employer  
Identification No.)

375 Saxonburg Boulevard  
Saxonburg, PA  
(Address of principal executive offices)

16056  
(Zip code)

Registrant's telephone number, including area code: **724-352-4455**

Securities registered pursuant to Section 12(b) of the Act:

Title of Each Class	Name of Each Exchange on Which Registered
Common Stock, no par value	Nasdaq Global Select Market

Securities registered pursuant to Section 12(g) of the Act: None

Indicate by check mark if the registrant is a well-known seasoned issuer, as defined in Rule 405 of the Securities Act.

Yes  No

Indicate by check mark if the registrant is not required to file reports pursuant to Section 13 or Section 15(d) of the Exchange Act.

Yes  No

Indicate by check mark whether the registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days.

Yes  No

Indicate by check mark whether the registrant has submitted electronically and posted on its corporate Web site, if any, every Interactive Data File required to be submitted and posted pursuant to Rule 405 of Regulation S-T during the preceding 12 months (or for shorter period that the registrant was required to submit and post such files).

Yes  No

Indicate by check mark if disclosure of delinquent filers pursuant to Item 405 of Regulation S-K is not contained herein, and will not be contained, to the best of registrant's knowledge, in definitive proxy or information statements incorporated by reference in Part III of this Form 10-K or any amendment to this Form 10-K.

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, or a smaller reporting company. See definition of "large accelerated filer," "accelerated filer" and "smaller reporting company" in Rule 12b-2 of the Exchange Act. (Check one):

Large accelerated filer  Accelerated filer  Non-accelerated filer  Smaller reporting company   
(Do not check if a smaller reporting company)

Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Exchange Act).

Yes  No

Aggregate market value of outstanding Common Stock, no par value, held by non-affiliates of the Registrant at December 31, 2012, was approximately \$957,128,000 based on the closing sale price reported on the Nasdaq Global Select Market. For purposes of this calculation only, directors and executive officers of the Registrant and their spouses are deemed to be affiliates of the Registrant.

Number of outstanding shares of Common Stock, no par value, at August 20, 2013, was 62,360,357.

## **DOCUMENTS INCORPORATED BY REFERENCE**

Portions of the registrant's definitive proxy statement, which will be issued in connection with the 2013 Annual Meeting of Shareholders of II-VI Incorporated, are incorporated by reference into Part III of this Annual Report on Form 10-K.

### **Forward-Looking Statements**

This Annual Report on Form 10-K (including certain information incorporated herein by reference) contains forward-looking statements made pursuant to Section 21E of the Securities Exchange Act of 1934, as amended (the "Exchange Act"), and the safe harbor provisions of the Private Securities Litigation Reform Act of 1995. These statements relate to the Company's performance on a going-forward basis. Forward-looking statements are also identified by words such as "expects," "anticipates," "intends," "plans," "projects" or similar expressions.

The forward-looking statements in this Annual Report on Form 10-K involve risks and uncertainties, which could cause actual results, performance or trends to differ materially from those expressed in the forward-looking statements herein or in previous disclosures. The Company believes that all forward-looking statements made by it have a reasonable basis, but there can be no assurance that these expectations, beliefs or projections as expressed in the forward-looking statements will actually occur or prove to be correct. Actual results could materially differ from such statements. In addition to general industry and economic conditions, factors that could cause actual results to differ materially from those discussed in the forward-looking statements include, but are not limited to: (i) the failure of any one or more of the assumptions stated in this Annual Report on Form 10-K to prove to be correct; (ii) the Risk Factors set forth in Item 1A of this Annual Report on Form 10-K; (iii) purchasing patterns from customers and end-users; (iv) timely release of new products, and acceptance of such new products by the market; (v) the introduction of new products by competitors and other competitive responses; and (vi) the Company's ability to devise and execute strategies to respond to market conditions, which could have a material adverse effect on our results of operations and cash flows. In addition, we operate in a highly competitive and rapidly changing environment; therefore, new risk factors can arise, and it is not possible for management to predict all such risk factors, nor to assess the impact of all such risk factors on our business or the extent to which any individual risk factor, or combination of risk factors, may cause results to differ materially from those contained in any forward-looking statement. Any forward-looking statements included in this Annual Report on Form 10-K are based solely on information currently available to the Company and speak only as of the date of this report and the Company disclaims any obligation to update information in this report, including any forward-looking statements, whether as a result of new information, future events or developments, or otherwise, except as may be required by the securities laws, and we caution you not to rely on them unduly.

Investors should also be aware that while the Company does communicate with securities analysts, from time to time, such communications are conducted in accordance with applicable securities laws and investors should not assume that the Company agrees with any statement or report issued by any analyst irrespective of the content of the statement or report.

## PART I

### Item 1. BUSINESS

#### Introduction

II-VI Incorporated (“II-VI,” the “Company,” “we,” “us,” or “our”) was incorporated in Pennsylvania in 1971. Our executive offices are located at 375 Saxonburg Boulevard, Saxonburg, Pennsylvania 16056. Our telephone number is 724-352-4455. Reference to “II-VI,” the “Company,” “we,” “us,” or “our” in this Annual Report on Form 10-K, unless the context requires otherwise, refers to II-VI Incorporated and its wholly-owned subsidiaries. The Company’s name is pronounced “Two Six Incorporated.” The majority of our revenues are attributable to the sale of engineered materials and opto-electronic components for industrial, military and medical laser applications, optical communications products, compound semiconductor substrate-based products and elements for material processing and refinement. Reference to “fiscal” or “fiscal year” means our fiscal year ended June 30 for the year referenced.

The Company consists of four reportable segments: (i) Infrared Optics; (ii) Near-Infrared Optics; (iii) Military & Materials; and (iv) Advanced Products Group. See below for a more detailed description of each of these segments.

During the fiscal year ended June 30, 2013, the Company completed three acquisitions:

November 1, 2012	M Cubed Technologies, Inc. (“M Cubed”)
December 3, 2012	The Thin-Film Filter business and Interleaver product line of Oclaro, Inc. (“Oclaro”)
December 21, 2012	LightWorks Optics, Inc. (“LightWorks”)

M Cubed joined the Advanced Products Group segment, the Thin-Film Filter business and Interleaver product line of Oclaro became a part of Photop Technologies, Inc. (“Photop”) in the Near-Infrared Optics segment, and LightWorks joined the Military & Materials segment.

See Note 2 to the Company’s consolidated financial statements included in Item 8 of this Annual Report on Form 10-K for additional information regarding the Company’s acquisitions, which information is incorporated herein by reference.

The Company acquired the remaining 25% equity of HIGHYAG Lasertechnologie GmbH (“HIGHYAG”) that it did not already own, thereby moving HIGHYAG from a majority-owned subsidiary to a wholly-owned subsidiary. The purchase price for the 25% equity of HIGHYAG was \$7.6 million, and a dividend of \$1.0 million was recorded as of June 30, 2013 in Other accrued liabilities in the accompanying Consolidated Balance Sheet included in Item 8 of this Annual Report on Form 10-K. Effective July 1, 2013, the Company will record 100% of the operating results of HIGHYAG in the Company’s Infrared Optics segment.

In August 2013, the Company announced that its subsidiary, Pacific Rare Specialty Metals & Chemicals, Inc. (“PRM”), a business in the Military & Materials segment, will discontinue its tellurium product line and will downsize its selenium product line to focus on providing selenium metal to the Company’s Infrared Optics segment, and will maintain production of its rare earth element. The Company believes this revised business model will better focus the PRM business on providing a reliable supply of selenium for the Company’s own internal needs while significantly decreasing write-downs and profit volatility associated with minor metal index price fluctuations.

Our Internet address is [www.ii-vi.com](http://www.ii-vi.com). Information contained on our website is not part of, and should not be construed as being incorporated by reference into, this Annual Report on Form 10-K. We post the following reports on our website as soon as reasonably practical after they are electronically filed with or furnished to the Securities and Exchange Commission (the “SEC”): our Annual Reports on Form 10-K, our Quarterly Reports on Form 10-Q, our Current Reports on Form 8-K, and any amendments to those reports or statements filed or

furnished pursuant to Section 13(a) or 15(d) of the Securities Exchange Act of 1934, as amended (“the Exchange Act”). In addition, we post our proxy statements on Schedule 14A related to our annual shareholders’ meetings as well as reports filed by our directors, officers and ten-percent beneficial owners pursuant to Section 16 of the Exchange Act. In addition, all filings are available via the SEC’s website ([www.sec.gov](http://www.sec.gov)). We also make our corporate governance documents available on our website, including the Company’s Code of Business Conduct and Ethics, governance guidelines and the charters for various board committees. All such documents are located on the Investors page of our website and are available free of charge.

### **Information Regarding Market Segments and Foreign Operations**

Financial data regarding our revenues, results of operations, industry segments and international sales for the three years ended June 30, 2013 are set forth in the Consolidated Statements of Earnings and in Note 12 to the Company’s consolidated financial statements included in Item 8 of this Annual Report on Form 10-K and are incorporated herein by reference. We also discuss certain Risk Factors set forth in Item 1A of this Annual Report on Form 10-K related to our foreign operations which are incorporated herein by reference.

### **General Description of Business**

We develop, refine, manufacture and market engineered materials and opto-electronic components and products for precision use in industrial, optical communications, military, semiconductor, medical and life science applications. We use advanced engineered material growth technologies coupled with proprietary high-precision fabrication, micro-assembly, thin-film coating and electronic integration to enable complex opto-electronic devices and modules. Our products are supplied to manufacturers and users in a wide variety of markets including industrial, optical communications, military, semiconductor and medical, and are deployed in applications that we believe reduce costs and improve performance or reliability in a variety of contexts, including laser cutting, welding and marking operations; optical communication products; military-related products; semiconductor products; medical procedures; and cooling and power generation solutions. A key Company strategy is to develop, refine and manufacture complex materials. We focus on providing critical components to the heart of our customers’ assembly lines for products such as high-power laser material processing systems, fiber optics and wireless communication systems, military fire control and missile guidance devices, medical diagnostic systems and industrial, commercial and consumer thermal management systems. We develop, manufacture, refine and market infrared and near-infrared laser optical elements, optical communications components and modules, military infrared optical components and assemblies, thermoelectric cooling and power generation systems, semiconductor products and single crystal silicon carbide (SiC) substrates.

Our U.S. production operations are located in Pennsylvania, Florida, California, New Jersey, Texas, Mississippi, Massachusetts, Connecticut and Delaware and our non-U.S. production operations are based in China, Singapore, Vietnam, the Philippines, Germany and Australia. In addition to sales offices at most of our manufacturing sites, we have sales and marketing subsidiaries in Japan, Germany, China, Switzerland, Belgium, the United Kingdom (“U.K.”) and Italy. Approximately 57% of our revenues for the fiscal year ended June 30, 2013 were generated from sales to customers outside of the U.S.

Our primary products are as follows:

- Laser-related products for CO<sub>2</sub> lasers, forward-looking infrared systems and high-precision optical elements used to focus and direct infrared lasers onto target work surfaces. The majority of these laser products require advanced engineered materials that are internally produced.
- Laser-related products for one-micron lasers for welding, drilling and cutting in automotive, semiconductor and other material processing applications. We produce tools for laser material processing, including modular laser processing heads for fiber lasers, yttrium aluminum garnet (“YAG”) lasers and other one-micron laser systems. We also manufacture beam delivery systems including fiber optic cables and modular beam systems.

- Optical and photonics components and modules for use in optical communication networks and other diverse consumer and commercial applications. We leverage our expertise in crystal materials, silicon materials and optics to design and manufacture a diverse range of customized optics and optical components such as optical transport, amplifier, monitoring and wavelength management devices, optical routing and switching components, test instruments and equipment, projection display components and laser devices.
- Laser-related products for solid-state lasers, high precision optical elements and assemblies used to focus and direct laser beams onto target work surfaces.
- Ultra-violet (“UV”) filters used in systems to detect shoulder-launched missiles to help improve the survivability of low-flying aircraft if attacked. The majority of these laser products require advanced engineered materials and crystals that are internally produced.
- Military infrared optical products and assemblies including optics for intelligence, surveillance and reconnaissance applications.
- A rare earth element via refining and reclamation processes. This product is used for green energy applications.
- Thermoelectric modules, thermoelectric systems, power generation modules and power generation systems based on engineered semiconductor materials that provide reliable and low cost temperature control or power generation capability.
- Advanced ceramic materials and precision motion control products addressing the semiconductor, display, industrial and defense markets in the fields of metal matrix composites and reaction bonded ceramics.
- SiC substrates which are wide bandgap semiconductor materials that enable fabrication of electronic devices for highly energy efficient, high frequency and high power applications.

See “We Are Subject to Stringent Environmental Regulation” included in Part I, Item 1A of this Annual Report on Form 10-K, which is incorporated herein by reference, for a discussion of the impact of environmental regulations on our businesses and operations.

### **Our Markets**

Our market-focused businesses are organized by technology and products. Our businesses are comprised of the following primary markets:

- Design, manufacture and marketing of engineered materials and opto-electronic components for infrared optics for industrial, military and medical applications by our II-VI Infrared Optics operations.
- Design, manufacture and marketing of customized technology for laser material processing to deliver both low-power and high-power one-micron laser light for industrial applications by our HIGHYAG operations in our Infrared Optics segment.
- Design, manufacture and marketing of a diverse range of customized optics, optical components and optical modules for consumer and commercial applications such as fiber optic communications, projection and display products, lasers, medical equipment and bio-medical instrumentation by our Photop operations in our Near-Infrared Optics segment.

- Design, manufacture and marketing of UV to infrared optical components and high precision optical assemblies, including micro-fine conductive mesh patterns for intelligence, surveillance, reconnaissance and other military, medical and commercial laser and imaging applications by our Military operations in our Military & Materials segment.
- Refinement, reclamation, manufacturing and marketing of a rare earth element green energy application by our PRM processing and refinement operations in our Military & Materials segment.
- Design, manufacture and marketing of thermoelectric modules and assemblies for cooling, heating and power generation applications in the defense, telecommunications, medical, automotive, gesture recognition, consumer and industrial markets by our Marlow Industries, Inc. (“Marlow”) operations in our Advanced Products Group segment.
- Design, manufacture and marketing of advanced ceramic materials and precision motion control products for the semiconductor, display, industrial and defense markets by our M Cubed business unit in our Advanced Products Group segment.
- Design, manufacture and marketing of single crystal SiC substrates for use in the defense and space, telecommunications, and industrial markets by our Wide Bandgap Materials Group (“WBG”) subsidiary of our Advanced Products Group segment.

*Infrared Optics Market.* Significant increases in the installed worldwide base of laser machines for a variety of laser processing applications have driven CO<sub>2</sub> laser optics component consumption. It is estimated that there are over 65,000 CO<sub>2</sub> laser systems currently deployed in the world. CO<sub>2</sub> lasers offer benefits in a wide variety of cutting, welding, drilling, ablation, cladding, heat treating and marking applications for materials such as steel alloys, non-ferrous metals, plastics, wood, paper, fiberboard, ceramics and composites. Laser systems enable manufacturers to reduce parts cost and improve quality, as well as improve process precision, speed, throughput, flexibility, repeatability and automation. Automobile manufacturers, for example, deploy lasers both to cut body components and to weld those parts together in high-throughput production lines. Manufacturers of motorcycles, lawn mowers and garden tractors cut, trim, and weld metal parts with lasers to reduce post-processing steps and, therefore, lower overall manufacturing costs. Furniture manufacturers utilize lasers because of their easily reconfigurable, low-cost prototyping and production capabilities for customer-specified designs. In high-speed food and pharmaceutical packaging lines, laser marking is used to provide automated product, date and lot coding on containers. In addition to being installed by original equipment manufacturers (“OEMs”) of laser systems in new machine builds, our optical components are purchased as replacement parts by end users of laser machines to maintain proper system performance. We believe that the current addressable market serviced by our II-VI Infrared Optics operations is approximately \$500 million.

*One-Micron Laser Market.* In many areas of material processing, laser technology has proven to be a better alternative to conventional production techniques. The precise cut and elegant seam are visible proof of a laser beam’s machining efficiency. Industrial applications such as welding, drilling and cutting have driven the recent market growth of the one-micron laser systems, and are demanding increased performance, lower total cost of ownership, ease of use and portability of the one-micron laser systems. One-micron laser systems require efficient and reliable tools, including modular laser processing heads for fiber lasers, beam delivery systems including fiber optic cables and modular beam systems. We believe that the current addressable market serviced by our HIGHYAG operations is approximately \$60 million.

*Near-Infrared Optics Market.* The near-infrared laser market is driven by applications in the optical communications, medical and life science and industrial markets. The optical communications market is being driven by demand for high-bandwidth communication capabilities by growing worldwide usage of the Internet, the growing number of broadband users, mobile device users and cloud computing users, and the greater reliance on high-bandwidth capabilities in our daily lives. For example, Internet activities, data storage, video and music



downloads, gaming, social networking and other on-line interactive applications are growing rapidly. High-bandwidth communication networks are being extended closer to the end user with fiber-to-the-home and other fiber optic networks. Mobile data traffic also is increasing as smart phones continue to proliferate with increasingly sophisticated audio, photo, video, email and Internet capabilities, as well as data connection and storage through cloud computing networks. The resulting traffic, in turn, is felt throughout the network, including the core that depends on optical technology. Medical and life science applications include aesthetic, vision correction, dental, ophthalmic and diagnostic lasers. Industrial market segments are addressed by solid state lasers and fiber lasers, which are used in higher power applications such as welding and cutting, and lower power applications such as marking and scribing. These industrial applications are demanding higher performance levels for less cost, creating competition for other technologies. The near-infrared market also addresses opportunities in the semiconductor processing, instrumentation, test and measurement and research segments. We believe that the current addressable markets serviced by our Near-Infrared Optics segment are approximately \$1.6 billion.

*Military Optics Market.* We provide several key assemblies and optical components such as windows, domes, laser rods and optics and related subassemblies to the military, commercial and medical markets for UV infrared applications in night vision, targeting, navigation, missile warning, and Homeland Security intelligence, surveillance and reconnaissance (ISR) systems. Infrared window and window assemblies for navigational and targeting systems are deployed on fixed and rotary-wing aircraft, such as the F-35 Joint Strike Fighter, F-16 fighter jet, Apache Attack Helicopter, unmanned platforms such as the Predator and Reaper Unmanned Aerial Vehicle (UAV) and ground vehicles such as the Abrams M-1 Tank and Bradley Fighting Vehicle. Additionally, multiple fighter jets, including the F-16, are being equipped with large area sapphire windows, as a key component for the aircraft, providing advanced targeting and imaging systems. Our ability to develop and manufacture these large area sapphire windows has played a key role in our ability to provide an even larger suite of sapphire panels, which are a key component of the F-35 Joint Strike Fighter Electro Optical Targeting System. Infrared domes are used on missiles with infrared guidance systems ranging from small, man-portable designs to larger designs mounted on helicopters, fixed-wing aircraft and ground vehicles. High-precision domes are an integral component of a missile's targeting system, providing efficient tactical capability, while serving as a protective cover to its internal components. The Company also offers precision optical engineering and manufacturing, with particular efficiency in designing to customer end-item specifications, assisting with co-engineering designs, and designing for manufacturability. The high precision optical components and assemblies programs include Deep Impact Comet Flyby HRI & MRI, Lunar Reconnaissance Orbiter, Hellfire II Missile Optics, Missile launch detection sensor optical assembly, and High Altitude Observatory telescopes to name a few. In addition to imaging, many of these systems employ laser designation and range-finding capabilities supported by our YAG material growth and competency in short wave infrared and visible optics. Turreted systems and mounted targeting pods employ these capabilities in addition to hand-held soldier systems. Rotary and fixed-wing platforms also use missile warning systems to protect against shoulder fired man-portable missiles. Our competencies in material growth for UV crystals and our optical assembly capabilities provide significant support to these missile warning systems. A key attribute to several of these systems is the ability to filter electro-magnetic interference using micro-fine conductive mesh patterns. This technology is also applied to non-optical applications for absorbing and transmitting energy from the surfaces of aircraft and missiles. Our military optical and non-optical products are sold primarily to U.S. Government prime contractors and directly to various U.S. Government agencies. Certain products have applications in commercial and medical and life science markets as well. We believe that the current addressable market serviced by our Military Optics business is approximately \$1.0 billion.

*Materials Processing and Refinement Market.* Rare earth elements are used in many electronic and alternative green energy applications. We believe that the current addressable market serviced by our PRM business for its rare earth element is approximately \$40 million.

*Thermoelectric Market.* Thermoelectric Modules ("TEMs") are solid-state semiconductor devices that act as small heat pumps to cool, heat and temperature stabilize a wide range of materials, components and systems.

Conversely, the principles underlying thermoelectrics allow TEMs to be used as a source of power when subjected to temperature differences. TEMs are more reliable than alternative cooling solutions that require moving parts, and provide more precise temperature control solutions than competing technologies. TEMs also have many other advantages which have spurred their adoption in a variety of industries and applications. For example, TEMs provide critical cooling and temperature stabilization solutions in a myriad of defense and space applications, including infrared cooled and un-cooled night vision technologies and thermal reference sources that are deployed in state-of-the-art weapons, as well as cooling high powered lasers used for range-finding target designation by military personnel. TEMs also allow for temperature stabilization of telecommunication lasers that generate and amplify optical signals for fiber optics systems. Thermoelectric-based solutions appear in a variety of medical applications including instrumentation and analytical applications such as DNA replication, blood analyzers and medical laser equipment. The industrial, commercial, and consumer markets provide a variety of niche applications ranging from desktop refrigerators and wine coolers to gesture recognition technology, semiconductor process and test equipment. In addition, power generation applications are expanding into fields such as waste heat recovery, heat scavenging and co-generation. We believe the current addressable markets serviced by our Marlow operations are approximately \$300 million.

*Metal Matrix Composites and Reaction Bonded Ceramics Market.* Metal matrix composites (“MMC”) and reaction bonded ceramics products are found in applications requiring precision, lightweight, strength, hardness and matched coefficient of thermal expansion. Each market has its own unique requirements and applications that drive material selection. This is especially true in semiconductor tool applications that require advanced materials to meet the need for increased tolerance, enhanced thermal stability, faster wafer transfer speeds, increased yields and reduced stage settling times. The semiconductor markets employ SiC for wafer chucks, light-wave scanning stages and high temperature, corrosion resistant wafer support systems. Cooled SiC mirrors are used in the illumination systems of Extreme Ultraviolet (“EUV”) lithography tools. The industrial market uses a variety of ceramic materials for high temperature applications requiring chemical inertness such as Liquid Crystal Display (“LCD”) flat panel display capital equipment as well as refractory components and neutron absorbing plates used in the nuclear industry. The defense market uses MMCs for protective body armor as well as protection for ground, air and naval resources. We believe the current addressable markets serviced by our M Cubed operations are approximately \$600 million.

*Silicon Carbide Substrate Market.* SiC is a wide bandgap semiconductor material that offers high-temperature, high-power and high-frequency capabilities as a substrate for applications at the high-performance end of the defense, telecommunication and industrial markets. SiC has certain intrinsic physical and electronic advantages over competing semiconductor materials such as Silicon and Gallium Arsenide. For example, the high thermal conductivity of SiC enables SiC-based devices to operate at high power levels and still dissipate the excess heat generated. Typically, our WBG customers deposit either SiC or Gallium Nitride (GaN) epitaxial layers on a SiC substrate and then fabricate electronic devices. SiC and GaN-based structures are being developed and deployed for the manufacture of a wide variety of microwave and power switching devices. High-power, high-frequency SiC-based microwave devices are used in next generation wireless switching telecommunication applications and in both commercial and military radar applications. SiC-based, high-power, high-speed devices improve the performance, efficiency and reliability of electrical power transmission and distribution systems (“smart grid”), as well as power conditioning and switching in power supplies and motor controls in a wide variety of applications including aircraft, hybrid vehicles, industrial, communications and green energy applications. We believe the current addressable market serviced by our WBG operations is approximately \$100 million.

## **Our Strategy**

Our strategy is to build businesses with world-class, engineered materials capabilities at their core. Our significant materials capabilities are as follows:

- Infrared Optics: Zinc Selenide (ZnSe), Zinc Sulfide (ZnS), Zinc Sulfide Multi Spectral (ZnS-MS), and Chemical Vapor Deposition (“CVD”) Diamond

- Near-Infrared Optics: Yttrium Aluminum Garnet (YAG), Yttrium Lithium Fluoride (YLF), Calcium Fluoride (CaF<sub>2</sub>), Yttrium Vanadate (YVO<sub>4</sub>), Potassium Titanyl Phosphate (KTP), Barium Borate Oxide (BBO), and Amorphous Silicon (a-Si)
- Military Infrared Optics: Germanium (Ge)
- Materials Processing and Refinement: Selenium (Se) for internal consumption and a Rare Earth Element
- Thermoelectric Modules: Bismuth Telluride (Bi<sub>2</sub>Te<sub>3</sub>)
- Metal Matrix Composites: Metal matrix composites (MMC), Reaction Bonded Ceramic (RB SiC and RB B<sub>4</sub>C) and Aluminum Silicon Carbide (Al-SiC)
- Silicon Carbide Substrates: Silicon Carbide (SiC)

We manufacture precision parts and components from these and other materials using our expertise in low damage surface and micro fabrication, thin-film coating and exacting metrology. A substantial portion of our business is based on sales orders with market leaders, which enable our forward planning and production efficiencies. We intend to continue capitalizing and executing on this proven model, participate effectively in the growth of the markets and continue our focus on operational excellence as we execute additional growth initiatives.

Our specific strategies are as follows:

- *Vertical Integration.* By combining the capabilities of our various business segments and operating units, we have created opportunities for our businesses to address manufacturing opportunities across multiple disciplines and markets. Where appropriate, we develop and/or acquire technological capabilities in areas such as material refinement, crystal growth, fabrication, diamond-turning, thin-film coating, metrology and assembly.
- *Investment in Manufacturing Operations.* We strategically invest in our manufacturing operations worldwide to increase production capacity and capabilities. The majority of our capital expenditures are used in our manufacturing operations.
- *Enhance Our Reputation as a Quality and Customer Service Leader.* We are committed to understanding our customers' needs and meeting their expectations. We have established ourselves as a consistent, high-quality supplier of components into our customers' products. In many cases, we deliver on a just-in-time basis. We believe our quality and delivery performance enhances our relationships with our customers.
- *Identify New Products and Markets.* We intend to identify new technologies, products and markets to meet evolving customer requirements for high performance engineered materials. Due to the special properties of the advanced materials we produce and/or refine, we believe there are numerous applications and markets for such materials.
- *Utilize Asian Manufacturing Operations.* Our manufacturing operations in China, Singapore, Vietnam and the Philippines play an important role in the operational and financial performance of the Company. We will continue to strategically invest in these operations and utilize their lower-cost capabilities.

- *Identify and Complete Strategic Acquisitions and Alliances.* We will carefully pursue strategic acquisitions and alliances with companies whose products or technologies may complement our current products, expand our market opportunities or create synergies with our current capabilities. We intend to identify acquisition opportunities that accelerate our access to emerging high-growth segments of the markets we serve and further leverage our competencies and economies of scale.
- *Balanced Approach to Research and Development.* Our research and development program includes both internally and externally funded research and development expenditures, targeting an overall investment of between 5 and 7 percent of revenues. We are committed to accepting the right mix of internally and externally funded research that ties closely to our long-term strategic objectives.

## **Our Products**

The main products for each of our markets are described as follows:

*Infrared Optics.* We supply a broad line of precision infrared opto-electronic components such as lenses, output couplers, windows, mirrors and scan-lenses for use in CO<sub>2</sub> lasers. Our precision opto-electronic components are used to attenuate the amount of laser energy, enhance the properties of the laser beam and focus and direct laser beams to a target work surface. The opto-electronic components include both reflective and transmissive optics and are made from materials such as zinc selenide, zinc sulfide, copper, silicon, gallium arsenide and germanium. Transmissive optics used with CO<sub>2</sub> lasers are predominately made from zinc selenide. We believe we are the largest manufacturer of zinc selenide in the world. We supply replacement optics to end users of CO<sub>2</sub> lasers. Over time, optics may become contaminated and must be replaced to maintain peak laser operations. This aftermarket portion of our business continues to grow as laser applications proliferate worldwide and the installed base of serviceable laser systems increases each year. We estimate that 85% to 90% of our infrared optics sales service this installed base of CO<sub>2</sub> laser systems. We serve the aftermarket via a combination of selling to OEMs and selling directly to system end users. We are also one of the leading producers of CVD diamond substrates for applications including multispectral laser optics, dielectric windows, heat sinks, and more. Diamond is the ultimate material for a wide variety of applications because of its outstanding physical properties, including extreme hardness and strength, high thermal conductivity, low thermal expansion, excellent dielectric properties, resistance to chemical attack, and optical transmission over a wide spectral range.

*One-Micron Laser Components.* Our broad expertise in laser technology, optics, sensor technology and laser applications enables us to supply a broad array of tools for laser materials processing, including modular laser processing heads for fiber lasers, YAG lasers and other one-micron laser systems. We also manufacture beam delivery systems including fiber optic cables and modular beam systems.

*Near-Infrared Optics.* We manufacture products across a broad spectral range, visible and near-infrared. We offer a wide variety of standard and custom laser gain materials, optics, optical components and optical module assemblies for optical communications, medical, life science, industrial, scientific and research and development laser systems. Laser gain materials are produced to stringent industry specifications and precisely fabricated to customer demands. Key materials and precision optical components for YAG, fiber lasers and other solid-state laser systems are an important part of our near-infrared optics product offerings. We manufacture wave-plates, polarizers, lenses, prisms and mirrors for visible and near-infrared applications, which are used to control or alter visible or near-infrared energy and its polarization. In addition, we manufacture specialty coated glass wafers used as optical filters in the life science market, and coated windows used as debris shields in the industrial and medical laser aftermarkets. We offer fiber optics, micro optics and photonic crystal parts for optical communications, optical and photonic crystal parts for instrumentation and laser applications, optical components and modules for optical communication networks, as well as diode pumped solid-state laser devices for optical instruments, display and biotechnology.

*Military Optics.* We offer optics and optical subassemblies for UV to infrared systems including thermal imaging, night vision, laser designation, missile warning, targeting and navigation systems. Our product offering is comprised of missile domes, electro-optical windows and subassemblies, imaging lenses, UV filter assemblies, laser cavity optics and prisms and other optical components. Our precision optical products utilize optical materials such as sapphire, germanium, zinc sulfide, zinc selenide, silicon and spinel. In addition, our products also include crystalline materials such as calcium fluoride, barium fluoride, yttrium aluminum garnet (YAG) and fused silica. Our products are currently utilized on the F-35 Joint Strike Fighter, F-16 fighter jet, Apache Attack Helicopter, unmanned platforms such as the Predator and Reaper UAV and ground vehicles such as the Abrams M-1 Tank and Bradley Fighting Vehicle as typical examples.

*Material Processing and Refinement.* Our product offering includes a rare earth element in specific purity levels and forms.

*Thermoelectric Modules and Assemblies.* We supply a broad array of TEMs and related assemblies to various market segments. In the defense market, TEMs are used in guidance systems, smart weapons and night vision systems, as well as soldier cooling. TEMs are also used in products providing temperature stabilization for telecommunication lasers that generate and amplify optical signals for fiber optic communication systems. TEMs are also used in gesture recognition technology. We also produce and sell a variety of solutions from thermoelectric components to complete sub-assemblies used in the medical equipment market and other industrial, commercial and personal comfort applications. Thermoelectric modules, used as power generators, are also applied in a range of end-use applications. We offer single-stage TEMs, micro TEMs, multi-stage TEMs, planar multi-stage TEMs, extended life thermo-cyclers, thermoelectric thermal reference sources, power generators and thermoelectric assemblies.

*Metal Matrix Composites and Reaction Bonded Ceramics.* We supply a diverse array of products to several market segments. In the semiconductor market, reaction bonded SiC is used to produce wafer chucks, electrostatic chucks and wafer / mask stages to high mechanical precision and assembled with integral heating strips to control temperature for use in next generation EUV Immersion Lithography. In the defense market we supply next generation personnel armor, monolithic helicopter seat tiles and vehicle and aviation armor tiles. In the industrial market we supply wear resistant components, refractory assemblies for glass production and neutron absorbing plates.

*Silicon Carbide.* Our product offerings are 6H-SiC (semi-insulating) and 4H-SiC (semi-conducting) poly-types and are available in sizes up to 150 mm diameter. SiC substrates are used in wireless infrastructure, radio frequency ("RF") electronics, power conversion, power switching and thermal management applications.

## **Research, Development and Engineering**

Our research and development program includes internally and externally funded research and development expenditures targeting an overall annual investment of between 5 and 7 percent of product revenues. From time to time, the ratio of externally funded contract activity to internally funded contract activity varies due to the unevenness of government funded research programs and changes in the focus of our internally funded research programs. We are committed to having the right mix of internally and externally funded research that ties closely to our long-term strategic objectives. The Company continues to believe that externally funded research and development will decrease in the near term due to governmental budget constraints.

We devote significant resources to research, development and engineering programs directed at the continuous improvement of our existing products and processes and to the timely development of new technologies, materials and products. We believe that our research, development and engineering activities are essential to our ability to establish and maintain a leadership position in each of the markets that we serve. As of June 30, 2013, we employed 767 people in research, development and engineering functions, 325 of whom are engineers or

scientists. In addition, certain manufacturing personnel support or participate in our research and development efforts on an ongoing basis. We believe the interaction between the development and manufacturing functions enhances the direction of our projects, reduces costs and accelerates technology transfers.

During the fiscal year ended June 30, 2013, we focused our research and development investments in the following areas:

- *Silicon Carbide Substrate Technology:* SiC substrate technology development efforts continued to move forward, with emphasis in the areas of defect density reduction, substrate fabrication, surface polishing and diameter expansion. In fiscal year 2013, we continued work on a program funded by the Air Force Research Laboratory (“AFRL”) for development and manufacturing optimization of 100mm and 150mm 4H (semi-conducting) SiC substrates for high power switching applications and 6H (semi-insulating) SiC substrates for RF applications. We became one of the first SiC producers in the world to introduce 150mm substrates to the power device markets and the first to introduce 150mm semi-insulating substrates for RF applications. Our research and development efforts in all of these areas have been both internally and externally funded.
- *CVD Diamond Technology:* The Company continued to develop CVD synthetic diamond materials for various optical applications, including EUV lithography. During fiscal year 2012, we began to commercially market our CVD synthetic diamond materials. Our research and development efforts in this area have been internally funded.
- *Photonics Design:* We have ongoing efforts to design, refine and improve our photonic crystal materials, precision optical and micro-optical parts, passive and active optical components and modules, components for fiber lasers and laser devices for instrumentation and display. Our research and development efforts in this area have been internally funded.
- *Micro-Optics Manufacturing:* Systems are driving towards smaller, more compact platforms and packages which are also reducing the size of the optical components that support these systems. In fiscal year 2013, the Company invested in equipment to manufacture substrates from 2mm-15mm using high-volume, computer-controlled manufacturing processes. We continued to support contract efforts funded by the Army Aviation and Missile Research, Development and Engineering Center (AMRDEC) to develop a deterministic process for manufacturing optics, which have only been successfully completed through laborious hand-polishing processes to date. Our research and development efforts in this area have been both internally and externally funded.
- *Thermoelectric Materials and Devices:* We continued to develop the industry-leading Bi<sub>2</sub>Te<sub>3</sub> Micro-Alloyed Materials (“MAM”) for thermoelectric cooling applications. Enabled by the thermal performance and fine grain microstructure of MAM, our research and development has focused on achieving levels of miniaturization and watt density beyond the reach of TEMs based on single crystal and polycrystalline materials produced by standard crystal growth techniques. In addition, we are developing capabilities in thermoelectric power generation materials that, combined with our intellectual property position, will allow us to bring to market new thermoelectric compounds. Our research and development efforts in this area have been both internally and externally funded.
- *Metal Matrix Composites and Reaction Bonded Ceramics:* We continued to invest in new product development efforts to support OEMs in connection with new product development relating to 300mm and 450mm diameter for the lithography systems for the semiconductor industry. Our research and development efforts in this area have been internally funded.

The development of our products and manufacturing processes is largely based on proprietary technical know-how and expertise. We rely on a combination of contract provisions, trade secret laws, invention disclosures and

patents to protect our proprietary rights. We have entered into selective intellectual property licensing agreements. When faced with potential infringement of our proprietary information, we have in the past and will continue to assert and vigorously protect our intellectual property rights.

Internally funded research and development expenditures were \$22.7 million, \$21.4 million and \$16.1 million for the fiscal years ended June 30, 2013, 2012 and 2011, respectively. For these same periods, externally funded research and development expenditures were \$4.5 million, \$7.0 million and \$7.8 million, respectively.

## **Marketing and Sales**

We market our products through a direct sales force and through representatives and distributors around the world. Our market strategy is focused on understanding our customers' requirements and building market awareness and acceptance of our products. New products are continually being produced and sold to our established customers in all markets.

Each of our subsidiaries is responsible for its own worldwide marketing and sales functions, although certain subsidiaries sell more than one product line. However, there is significant cooperation and coordination between our subsidiaries to utilize the most efficient and appropriate marketing channel when addressing the diverse applications within markets. Our subsidiaries market their products as follows:

- The Infrared Optics segment markets its products through a direct sales force in the U.S. and through our wholly-owned subsidiaries in Japan, Germany, China, Singapore, Belgium, Switzerland, the U.K. and Italy as well as through distributors throughout the rest of the world.
- The one-micron laser marketing and sales activities are handled through a direct sales force in the U.S., Japan, Germany, Italy and Belgium as well as through distributors throughout the rest of the world.
- The Near-Infrared Optics segment markets its products through its direct sales force in the U.S., China, Europe, Japan and Australia, and through distributors throughout the rest of the world.
- The military infrared optics marketing and sales initiative is handled through a direct sales force in the U.S.
- The TEMs marketing and sales initiative is handled through a direct sales force in the U.S., through our wholly-owned subsidiary in Germany, through direct sales forces located in II-VI offices in Japan, China and Singapore, as well as through distributors throughout the rest of the world.
- The MMCs and reaction bonded ceramics marketing and sales initiative is handled through a direct sales force in the U.S.
- The WBG's SiC marketing and sales initiative is handled through a direct sales force in the U.S. and through our wholly-owned international subsidiaries.

Our sales forces develop effective communications with our OEM and end-user customers worldwide. Products are actively marketed through targeted mailings, telemarketing, select advertising, and may be based on attendance at trade shows and customer partnerships. Our sales force includes a highly-trained team of application engineers to assist customers in designing, testing and qualifying our parts as key components of their systems. As of June 30, 2013, we employed 267 individuals in sales, marketing and support.

We do business with a number of customers in the defense industry, who in turn generally contract with a governmental entity, typically a U.S. governmental agency. Most governmental programs are subject to funding approval and can be modified or terminated without warning by a legislative or administrative body. The discussion provided in the section on Risk Factors set forth in Item 1A of this Annual Report on Form 10-K related to our exposure to government markets is incorporated herein by reference.

## Manufacturing Technology and Processes

As noted in the “Our Strategy” section, many of the products we produce depend on our ability to manufacture and refine technically challenging materials and components. The table below shows a representative number of these key materials.

<u>Product Line</u>	<u>Materials Produced/Refined</u>
• Infrared Optics	ZnSe, ZnS, ZnS-MS, CVD Synthetic Diamond
• Near-Infrared Optics – Photop Technologies, Inc.	YVO <sub>4</sub> , YAG, YLF, CaF <sub>2</sub> ,KTP, BBO and a-Si
• Military Optics	Ge, ZnSe, ZnS
• Materials Processing and Refinement	Se and a Rare Earth Element
• Thermoelectric Modules and Assemblies	Bi <sub>2</sub> Te <sub>3</sub>
• Metal Matrix Composites and Reaction Bonded Ceramics	Al/SiC MMC, RB SiC, RB B <sub>4</sub> C
• Silicon Carbide Substrates	SiC

The ability to produce, process and refine these difficult materials and to control their quality and yields is an expertise of the Company. Processing these materials into finished products is also difficult to accomplish; yet the quality and reproducibility of these products are critical to the performance of our customers’ instruments and systems. In the markets we serve, there are a limited number of suppliers of many of the components we manufacture and there are very few industry-standard products.

Our network of worldwide manufacturing sites allows us to manufacture our products in regions that provide cost-effective advantages and enable proximity to our customers. We employ numerous advanced manufacturing technologies and systems at our manufacturing facilities. These include automated Computer Numeric Control optical fabrication, high throughput thin-film coaters, micro-precision metrology and custom-engineered automated furnace controls for the crystal growth processes. Manufacturing products for use across the electro-magnetic spectrum requires the capability to repeatedly produce products with high yields to atomic tolerances. We embody a technology and quality mindset that gives our customers the confidence to utilize our products on a just-in-time basis straight into the heart of their production lines.

## Export and Import Compliance

We are required to comply with various export/import control and economic sanction laws, including:

- The International Traffic in Arms Regulations (“ITAR”) administered by the U.S. Department of State, Directorate of Defense Trade Controls, which, among other things, imposes license requirements on the export from the U.S. of defense articles and defense services which are items specifically designed or adapted for a military application and/or listed on the U.S. Munitions List;
- The Export Administration Regulations (“EAR”) administered by the U.S. Department of Commerce, Bureau of Industry and Security, which, among other things, imposes licensing requirements on the export or re-export of certain dual-use goods, technology and software which are items that potentially have both commercial and military applications;
- The regulations administered by the U.S. Department of Treasury, Office of Foreign Assets Control, which implement economic sanctions imposed against designated countries, governments and persons based on U.S. foreign policy and national security considerations; and
- The import regulatory activities of the U.S. Customs and Border Protection.



Foreign governments have also implemented similar export and import control regulations, which may affect our operations or transactions subject to their jurisdiction. The discussion provided in the section on Risk Factors set forth in Item 1A of this Annual Report Form on Form 10-K related to our import and export compliance is incorporated herein by reference.

### **Sources of Supply**

The major raw materials we use include zinc, selenium, zinc selenide, zinc sulfide, hydrogen selenide, hydrogen sulfide, tellurium, yttrium oxide, aluminum oxide, iridium, platinum, bismuth, silicon, thorium fluoride, antimony, carbon, gallium arsenide, copper, germanium, molybdenum, quartz, optical glass, diamond, and other materials. Excluding our own production, there are more than two external suppliers for all of the above materials except for zinc selenide, zinc sulfide, hydrogen selenide and thorium fluoride, for which there is only one proven source of supply outside of the Company's capabilities. For many materials, we have entered into purchase arrangements whereby suppliers provide discounts for annual volume purchases in excess of specified amounts.

The continued high-quality of and access to these materials is critical to the stability and predictability of our manufacturing yields. We conduct testing of materials at the onset of the production process. Additional research and capital investment may be needed to better define future starting material specifications. We have not experienced significant production delays due to shortages of materials. However, we do occasionally experience problems associated with vendor-supplied materials not meeting contract specifications for quality or purity. As set forth in Item 1A of this Annual Report on Form 10-K, significant failure of our suppliers to deliver sufficient quantities of necessary high-quality materials on a timely basis could have a materially adverse effect on our results of our operations.

### **Customers**

Our existing customer base for infrared optics, including our laser component products, consists of over 6,500 customers worldwide. The main groups of customers for these products are as follows:

- OEM and system integrators of industrial, medical and military laser systems. Representative customers include Trumpf, Inc., Bystronic, Inc. and Rofin-Sinar Technologies.
- Laser end users who require replacement optics for their existing laser systems. Representative customers include Caterpillar, Inc. and Honda of America Mfg., Inc.
- Military and aerospace customers who require products for use in advanced targeting, navigation and surveillance. Representative customers include Lockheed Martin Corporation and Northrop Grumman Corporation.

For our one-micron laser products, our customers are automotive manufacturers, laser manufacturers and system integrators. Representative customers include Volkswagen Corporation and Laserline GmbH.

For our near-infrared optics, components and modules products our customers are worldwide network system and sub-system providers of telecommunications, data communications and cable TV, as well as global manufacturers of commercial and consumer products such as instrumentation, fiber laser, display and projection devices. Representative customers include Huawei Technologies, Co., Ltd., Corning Incorporated, JDS Uniphase Corporation, and Google, Inc.

For our military optics products, our customers are manufacturers of equipment and devices for aerospace, defense, medical and commercial markets. Representative customers include Lockheed Martin Corporation, Raytheon Company, bio-medical system providers and various U.S. Government agencies.

For our thermoelectric products, our customers manufacture and develop equipment and devices for defense, space, telecommunications, medical, industrial, automotive, gesture recognition and commercial markets. Representative customers include Bio-Rad Laboratories, Inc., Raytheon Company and Flextronics International.

The main group of customers for our MMCs and reaction bonded ceramics products are as follows:

- Manufacturers and developers of integrated circuit capital equipment for the semiconductor industry. Representative customers include ASML Holdings NV, Carl Zeiss Group and KLA Tencor.
- Manufacturers and developers of refractory structures and neutron absorption components for industrial markets. Representative customers include Corning Incorporated and Alstom.

For our SiC products, our customers are manufacturers and developers of equipment and devices for high-power RF electronics and high-power and high-voltage switching and power conversion systems for both the U.S. Department of Defense and commercial applications.

### **Competition**

We believe that we are a significant producer of products and services in our addressed markets. In the area of infrared laser optics and materials, we believe we are an industry leader. We believe that we are an industry leader in laser material processing tools for high-power one-micron laser systems. We are a significant supplier of laser and optical crystals and near-infrared laser optics to the worldwide markets for scientific, research, medical and industrial applications. We are a leading photonics designer and integrated supplier of fiber optics, micro optics, precision optics, optical components and modules, and photonics crystal materials for optical communications applications. We are a leading supplier of UV to infrared optics, optical assemblies and YAG laser rods used in complex military assemblies for targeting, navigation and thermal imaging systems to major military prime contractors. We believe we are a leading supplier of selenium metal products for infrared optics applications and an emerging rare earth refiner. We believe we are a global leader in the design and manufacturer of TEMs and thermal control assemblies. We believe we are a global leader in the development of advanced materials and ceramics manufacturing processes in the fields of MMCs and reaction bonded ceramics. We believe we are a global leader in the manufacturing of single crystal semi-insulating SiC substrates for use in the defense and telecommunication markets, and a preferred alternative to the current leading supplier of SiC for industrial markets.

We compete on the basis of product technical specifications, quality, delivery time, technical support and pricing. Management believes that we compete favorably with respect to these factors and that our vertical integration, manufacturing facilities and equipment, experienced technical and manufacturing employees and worldwide marketing and distribution channels provide us with competitive advantages.

We have a number of present and potential competitors that are larger and have greater financial, selling, marketing and/or technical resources. Competitors producing infrared laser optics include Sumitomo Electric Industries, Ltd. and Newport Corporation. Competing producers of automated equipment and laser material processing tools to deliver high power one-micron laser systems include Optoskand AB and Precitec, Inc. Competing producers of optical component and optics products include O-Net Communications, OPLINK Communication and Axsun. Competing producers of infrared optics for military applications include DRS Technologies, Inc., Goodrich Corporation and in-house fabrication and thin film coating capabilities of major military customers. Competing producers of TEMs include Komatsu, Ltd., Laird Technologies and Ferrotec Corporation. Competing producers of MMCs and reaction bonded ceramics products include Berliner Glass, and Coorstek. Competing producers of single crystal SiC substrates include Cree, Inc., Dow Corning Corporation, Nippon Steel and SiCrystal AG.

In addition to competitors who manufacture products similar to those we produce, there are other technologies and products available that may compete with our technologies and products.

## **Bookings and Backlog**

We define our bookings as customer orders received that are expected to be converted to revenues over the next twelve months. For long-term customer orders, the Company records only those orders which are expected to be converted into revenues within twelve months from the end of the reporting period due to the inherent uncertainty of an order that far in the future. For the year ended June 30, 2013, our bookings were approximately \$527 million compared to bookings of approximately \$535 million for the year ended June 30, 2012.

We define our backlog as bookings that have not been converted to revenues by the end of the reporting period. Bookings are adjusted if changes in customer demands or production schedules move a delivery beyond twelve months. As of June 30, 2013, our backlog was approximately \$184 million compared to approximately \$179 million at June 30, 2012.

## **Employees**

As of June 30, 2013, we employed 6,185 persons worldwide. Of these employees, 767 were engaged in research, development and engineering, 4,591 in direct production (of which 824 are employees of Photop in China who work under contract manufacturing arrangements for customers of the Company) and the remaining balance of the Company's employees work in sales and marketing, administration, finance and support services. Our production staff includes highly skilled optical craftsmen. We have a long-standing practice of encouraging active employee participation in areas of operations management. We believe our relations with our employees are good. We reward our employees with incentive compensation based on achievement of performance goals. There are 174 employees located in the United States and the Philippines that are covered under collective bargaining agreements.

## **Trade Secrets, Patents and Trademarks**

We rely on our trade secrets, proprietary know-how, invention disclosures and patents to help us develop and maintain our competitive position. We aggressively pursue process and product patents in certain areas of our businesses. We have confidentiality and noncompetition agreements with certain personnel. We require that all U.S. employees sign a confidentiality and noncompetition agreement upon their commencement of employment with us.

The processes and specialized equipment utilized in crystal growth, infrared materials fabrication and infrared optical coatings as developed by us are complex and difficult to duplicate. However, there can be no assurance that others will not develop or patent similar technology or that all aspects of our proprietary technology will be protected. Others have obtained patents covering a variety of infrared optical configurations and processes, and others could obtain patents covering technology similar to our technology. We may be required to obtain licenses under such patents, and there can be no assurance that we would be able to obtain such licenses, if required, on commercially reasonable terms, or that claims regarding rights to technology will not be asserted which may adversely affect our results of operations. In addition, our research and development contracts with agencies of the U.S. Government present a risk that project-specific technology could be disclosed to competitors as contract reporting requirements are fulfilled.

The following is a representative listing of our currently held registered tradenames and trademarks:

- “II-VI Incorporated<sup>(TM)</sup>” tradename
- “Infraready Optics<sup>(TM)</sup>” tradename
- “MP-5<sup>(TM)</sup>” tradename
- “Marlow Industries, Inc.<sup>(TM)</sup>” tradename and trademark
- “Photop Technologies, Inc.<sup>(TM)</sup>” tradename
- “VLOC Incorporated<sup>(TM)</sup>” trademark
- “Aegis Lightwave, Inc.<sup>(TM)</sup>” trademark
- “M Cubed Technologies, Inc.<sup>(TM)</sup>” tradename
- “LightWorks Optical Systems<sup>(TM)</sup>” tradename

## **Item 1A. RISK FACTORS**

The Company cautions investors that its performance and, therefore, any forward-looking statement, is subject to risks and uncertainties. Various important factors including, but not limited to, the following may cause the Company's future results to differ materially from those projected in any forward-looking statement. You should carefully consider these factors, as well as the other information contained in this Annual Report on Form 10-K when evaluating an investment in our securities.

### **General Global Economic Conditions May Adversely Affect Our Business, Operating Results and Financial Condition**

Current and future conditions in the global economy have an inherent degree of uncertainty. As a result, it is difficult to estimate the level of growth or contraction for the global economy as a whole. It is even more difficult to estimate growth or contraction in various parts, sectors and regions of the economy, including industrial, military, optical communications, telecommunications, semiconductor, photovoltaic and medical markets in which we participate. Because all components of our forecasting are dependent upon estimates of growth or contraction in the markets we serve and demand for our products, the prevailing global economic uncertainties render estimates of future income and expenditures very difficult to make. In addition, changes in general economic conditions may affect industries in which our customers operate. These changes could include decreases in the rate of consumption or use of our customers' products due to economic downturn, and such conditions could have a material adverse effect on demand for our customers' products and, in turn, on demand for our products. Adverse changes may occur in the future as a result of declining or flat global or regional economic conditions, fluctuations in currency and commodity prices, wavering confidence, capital expenditure reductions, unemployment, decline in stock markets, contraction of credit availability or other factors affecting economic conditions generally. For example, factors that may affect our operating results include disruptions to the credit and financial markets in the U.S., Europe and elsewhere; adverse effects of the ongoing sovereign debt crisis in Europe; contractions or limited growth in consumer spending or consumer credit; and adverse economic conditions that may be specific to the Internet, e-commerce and payments industries. These changes may negatively affect sales of products, increase exposure to losses from bad debt and commodity prices, and increase the cost and availability of financing and increase costs associated with manufacturing and distributing products. Any economic downturn could have a material adverse effect on our business, results of operations or financial condition.

### **Our Future Success Depends on International Sales and Management of Global Operations**

Sales to customers in countries other than the U.S. accounted for approximately 57%, 60% and 59% of revenues during the years ended June 30, 2013, 2012 and 2011, respectively. We anticipate that international sales will continue to account for a significant portion of our revenues for the foreseeable future. In addition, we manufacture products in China, Singapore, Vietnam, the Philippines, Germany and Australia and maintain direct sales offices in Japan, Germany, Switzerland, the U.K., Belgium, China, Singapore and Italy. Sales and operations outside of the U.S. are subject to certain inherent risks, including fluctuations in the value of the U.S. dollar relative to foreign currencies, the current global economic uncertainties, tariffs, quotas, taxes and other market barriers, political and economic instability, restrictions on the export or import of technology, potentially limited intellectual property protection, difficulties in staffing and managing international operations and potentially adverse tax consequences. There can be no assurance that any of these factors will not have a material adverse effect on our business, results of operations or financial condition. In particular, currency exchange fluctuations in countries where we do business in the local currency could have a material adverse effect on our business, results of operations or financial condition by rendering us less price-competitive than foreign manufacturers.

### **Commodity Prices May Adversely Affect Our Results of Operations and Financial Condition**

We are exposed to a variety of market risks, including the effects of changes in commodity prices. Our businesses purchase, produce and sell high purity selenium and other raw materials based upon quoted market prices from minor metal exchanges. As a result, the negative impact from changes in commodity prices, such as the recent decline in global selenium prices which may not be recovered in our product sales, could have a material adverse effect on our business, results of operations or financial condition. In the event that the global index price of selenium experiences a further decline from its current level, the Company would be required to record an additional write-down of its selenium inventory in future periods.

### **Continued U.S. Budget Deficits and Ongoing Sequestration Could Result in Significant Defense Spending Cuts**

Specific to the military business within our Infrared Optics, Military & Materials and Advanced Products Group segments, sales to customers in the defense industry totaled approximately 20% of revenues in the fiscal year ended June 30, 2013. These customers in turn generally contract with a governmental entity, typically a U.S. governmental agency. Continued record U.S. Federal budget deficits and ongoing cuts resulting from sequestration could result in reductions in defense spending, which could result in delays and/or cancellations of major programs. Most governmental programs are subject to funding approval and can be modified or terminated with no warning upon the determination of a legislative or administrative body. The loss of or failure to obtain certain contracts or the loss of a major government customer could have a material adverse effect on our business, results of operations or financial condition.

### **A Significant Portion of Our Business is Dependent on Other Cyclical Industries**

Our business is significantly dependent on the demand for products produced by end-users of industrial lasers and optical communication products. Many of these end-users are in industries that have historically experienced a highly cyclical demand for their products. As a result, demand for our products is subject to cyclical fluctuations. This cyclical demand could have a material adverse effect on our business, results of operations or financial condition.

### **There Are Limitations on the Protection of Our Intellectual Property**

We rely on a combination of trade secrets, patents, copyright and trademark laws combined with employee noncompetition and nondisclosure agreements to protect our intellectual property rights. There can be no assurance that the steps taken by us will be adequate to prevent misappropriation of our technology or intellectual property. Furthermore, there can be no assurance that third-parties will not assert infringement claims against us in the future. Asserting our intellectual property rights or defending against third-party claims could involve substantial expense, thus materially and adversely affecting our business, results of operations or financial condition. In the event a third-party were successful in a claim that one of our processes infringed its proprietary rights, we could be required to pay substantial damages or royalties, or expend substantial amounts in order to obtain a license or modify processes so that they no longer infringe such proprietary rights, any of which could have a material adverse effect on our business, results of operations or financial condition.

### **We Depend on Highly Complex Manufacturing Processes Which Require Products from Limited Sources of Supply**

We utilize high-quality, optical grade zinc selenide (ZnSe) in the production of many of our infrared optical products. We are the leading producer of ZnSe for our internal use and for external sale. The production of ZnSe is a complex process requiring a highly controlled environment. A number of factors, including defective or contaminated materials, could adversely affect our ability to achieve acceptable manufacturing yields of high quality ZnSe. ZnSe is available from only one significant outside source whose quantities and quality of ZnSe

may be limited. Lack of adequate availability of high quality ZnSe would have a material adverse effect upon us. There can be no assurance that we will not experience manufacturing yield inefficiencies which could have a material adverse effect on our business, results of operations or financial condition.

We produce Hydrogen Selenide gas which is used in our production of ZnSe. There are risks inherent in the production and handling of such material. Our lack of proper handling of Hydrogen Selenide could require us to curtail our production of Hydrogen Selenide. Hydrogen Selenide is available from only one outside source whose quantities and quality may be limited. The cost of purchasing such material is greater than the cost of internal production. As a result, the purchase of a substantial portion of such material from the outside source would increase our ZnSe production costs. Therefore, an inability to internally produce Hydrogen Selenide could have a material adverse effect on our business, results of operations or financial condition.

In addition, we produce and utilize other high purity and relatively uncommon materials and compounds to manufacture our products including, but not limited to, Zinc Sulfide (ZnS), Yttrium Aluminum Garnet (YAG), Yttrium Lithium Fluoride (YLF), Calcium Fluoride (CaF<sub>2</sub>), Germanium (Ge), Selenium (Se), Telluride (Te), Bismuth Telluride (Bi<sub>2</sub>Te<sub>3</sub>) and Silicon Carbide (SiC). A significant failure of our internal production processes or our suppliers to deliver sufficient quantities of these necessary materials on a timely basis could have a material adverse effect on our business, results of operations or financial condition.

#### **New Regulations Related to Conflict Minerals Could Adversely Impact our Business.**

The Dodd-Frank Wall Street Reform and Consumer Protection Act contain provisions to improve transparency and accountability concerning the supply of certain minerals, known as “conflict minerals,” originating from the Democratic Republic of Congo (DRC) and adjoining countries. Pursuant to these rules, in August 2012 the SEC adopted certain annual disclosure and reporting requirements for those companies that use conflict minerals in their products, regardless of whether such minerals were mined from the DRC and adjoining countries, beginning in May 2014. We could incur significant costs associated with complying with these disclosure requirements, including costs related to our due diligence efforts to determine the sources of any conflict minerals used in our products. These rules could adversely affect the sourcing, supply and pricing of materials we use in our products, if it turns out that there are only a limited number of suppliers offering “conflict free” conflict minerals. We cannot be sure that we will be able to obtain conflict free products from such suppliers in sufficient quantities or at competitive prices. Also, we may face reputational challenges if we determine that certain of our products contain conflict minerals which are not conflict free, or if we are unable to sufficiently verify the origins of all of the conflict minerals used in our products through the due diligence procedures we implement.

#### **We May Expand Product Lines and Markets by Acquiring Other Businesses**

Our business strategy includes expanding our product lines and markets through internal product development and acquisitions. Any acquisition could result in potentially dilutive issuances of our equity securities, the incurrence of debt, contingent liabilities and amortization expense related to intangible assets acquired, any of which could have a material adverse effect on our business, results of operations or financial condition. In addition, acquired businesses may experience operating losses as of, and subsequent to, the acquisition date. Any acquisition will involve numerous risks, including difficulties in the assimilation of the acquired company’s operations and products, uncertainties associated with operating in new markets and working with new customers and the potential loss of the acquired company’s key personnel.

The following information relates to acquisitions made during the periods presented in this Annual Report on Form 10-K.

<u>Acquired Party</u>	<u>Year Acquired</u>	<u>Business Segments</u>	<u>Percentage Ownership as of June 30, 2013</u>
M Cubed Technologies, Inc. The Thin Film Filter business and Interleaver Product Line of Oclaro, Inc.	Fiscal 2013	Advanced Products Group	100%
LightWorks Optics, Inc.	Fiscal 2013	Near-Infrared Optics	100%
Aegis Lightwave, Inc.	Fiscal 2012	Military & Materials	100%
Max Levy Autograph, Inc.	Fiscal 2011	Near-Infrared Optics	100%
		Military & Materials	100%

### **Some Systems Are Complex in Design and May Contain Defects that Are Not Detected Until Deployed Which Could Increase Our Costs and Reduce Our Revenues**

Some systems that utilize our products are inherently complex in design and require ongoing maintenance. As a result of the technical complexity of our products, changes in our or our suppliers' manufacturing processes or the use of defective or contaminated materials by us or our suppliers could result in a material adverse effect on our ability to achieve acceptable manufacturing yields and product reliability. To the extent that we do not achieve acceptable yields or product reliability, our business, results of operation, financial condition or customer relationships could be materially adversely affected.

Our customers may discover defects in our products after the products have been fully deployed and operated under peak stress conditions. In addition, some of our products are combined with products from other vendors, which may contain defects. Should problems occur, it may be difficult to identify the source of the problem. If we are unable to fix defects or other problems, we could experience, among other things: loss of customers; increased costs of product returns and warranty expenses; damage to our brand reputation; failure to attract new customers or achieve market acceptance; diversion of development and engineering resources; or legal action by our customers. The occurrence of any one or more of the foregoing factors could have a material adverse effect on our business, results of operations or financial condition.

### **We May Encounter Substantial Competition**

We may encounter substantial competition from other companies in the same market, including established companies with significant resources. Some of our competitors may have financial, technical, marketing or other capabilities more extensive than ours and may be able to respond more quickly than we can to new or emerging technologies and other competitive pressures. We may not be able to compete successfully against our present or future competitors, and such competition could have a material adverse effect on our business, results of operations or financial condition.

### **The Market Price of Our Common Stock and the Stock Market in General Can Be Highly Volatile**

Factors that could cause fluctuation in our stock price include, among other things: general economic and market conditions; actual or anticipated variations in operating results; changes in financial estimates by securities analysts; our inability to meet or exceed securities analysts' estimates or expectations; conditions or trends in the industries in which our products are purchased; announcements by us or our competitors of significant acquisitions, strategic partnerships, divestitures, joint ventures or other strategic initiatives; capital commitments; additions or departures of key personnel; and sales of our Common Stock.

Many of these factors are beyond our control. These factors could cause the market price of our Common Stock to decline, regardless of our actual operating performance.

#### **Because we do not Currently Intend to Pay Dividends, Shareholders Will Benefit From an Investment in our Common Stock Only if it Appreciates in Value**

We have never declared or paid any dividends on our common stock. We currently anticipate that we will retain any future earnings to support operations and to finance the development of our business and do not expect to pay cash dividends in the foreseeable future. As a result, the success of an investment in our common stock will depend entirely upon any future appreciation in its value. There is no guarantee that our common stock will appreciate in value or even maintain the price at which a shareholder originally purchased its shares.

#### **Our Success Depends on Our Ability to Retain Key Personnel**

We are highly dependent upon the experience and continuing services of certain scientists, engineers, production and management personnel. Competition for the services of these personnel is intense, and there can be no assurance that we will be able to retain or attract the personnel necessary for our success. The loss of the services of our key personnel could have a material adverse effect on our business, results of operations or financial condition.

#### **Our Success Depends on New Products and Processes**

In order to meet our strategic objectives, we must continue to develop, manufacture and market new products, develop new processes and improve existing processes. As a result, we expect to continue to make significant investments in research and development and to continue to consider from time to time the strategic acquisition of businesses, products or technologies complementary to our business. Our success in developing, introducing and selling new and enhanced products depends upon a variety of factors including product selection, timely and efficient completion of product design and development, timely and efficient implementation of manufacturing and assembly processes, effective sales and marketing and product performance in the field. There can be no assurance that we will be able to develop and introduce new products or enhancements to our existing products and processes in a manner which satisfies customer needs or achieves market acceptance. The failure to do so could have a material adverse effect on our ability to grow our business.

#### **Keeping Pace with Key Industry Developments is Essential**

We are engaged in industries which will be affected by future developments. The introduction of products or processes utilizing new developments could render existing products or processes obsolete or unmarketable. Our continued success will depend upon our ability to develop and introduce, in a timely and cost-effective basis, new products, processes and applications that keep pace with developments and address increasingly sophisticated customer requirements. There can be no assurance that we will be successful in identifying, developing and marketing new products, applications and processes and that we will not experience difficulties that could delay or prevent the successful development, introduction and marketing of product or process enhancements or new products, applications or processes, or that our products, applications or processes will adequately meet the requirements of the marketplace and achieve market acceptance. Our business, results of operations and financial condition could be materially and adversely affected if we were to incur delays in developing new products, applications or processes or if we do not gain market acceptance for the same.

#### **Changes in Tax Rates, Tax Liabilities or Tax Accounting Rules Could Affect Future Results**

As a global company, we are subject to taxation in the U.S. and various other countries and jurisdictions. As such, we must exercise a level of judgment in determining our worldwide tax liabilities. Our future tax rates could be affected by changes in the composition of earnings in countries with differing tax rates or changes in tax laws. Changes in tax laws or tax rulings may have a significantly adverse impact on our effective tax rate. For



example, proposals for fundamental U.S. international tax reform, if enacted, could have a significant adverse impact on our effective tax rate. In addition, we are subject to regular examination of our income tax returns by the Internal Revenue Service and other tax authorities. We regularly assess the likelihood of favorable or unfavorable outcomes resulting from these examinations to determine the adequacy of our provision for income taxes. Although we believe our tax estimates are reasonable, there can be no assurance that any final determination will not be materially different than the treatment reflected in our historical income tax provision and accruals, which could materially and adversely affect our business, results of operation or financial condition.

### **Declines in the Operating Performance of One of Our Business Segments Could Result in an Impairment of the Segment's Goodwill and Indefinite-Lived Intangible Assets**

As of June 30, 2013, we had goodwill and indefinite-lived intangible assets of approximately \$123.4 million and \$16.4 million, respectively, on our Consolidated Balance Sheets. We test our goodwill and indefinite-lived intangible assets for impairment on an annual basis or when an indication of possible impairment exists, to determine whether the carrying value of our assets is still supported by the fair value of the underlying business. To the extent that it is not, we are required to record an impairment charge to reduce the asset to fair value. A decline in the operating performance of any of our business segments could result in an impairment charge which could have a material adverse effect on our results of operations or financial condition.

### **Provisions in Our Articles of Incorporation and By-Laws May Limit the Price that Investors May be Willing to Pay in the Future for Shares of Our Common Stock**

Our articles of incorporation and by-laws contain provisions which could make us a less attractive target for a hostile takeover or make more difficult or discourage a merger proposal, a tender offer or a proxy contest. Such provisions include: classification of the board of directors into three classes; a requirement that shareholder nominated board nominees be nominated in advance of a meeting to elect such directors and that specific information be provided in connection with such nomination; the ability of the board of directors to issue additional shares of Common Stock or preferred stock without shareholder approval; and certain provisions requiring supermajority approval (at least two-thirds of the votes cast by all shareholders entitled to vote thereon, voting together as a single class). In addition, the Pennsylvania Business Corporation Law contains provisions which may have the effect of delaying or preventing a change in control of the Company. All of these provisions may limit the price that investors may be willing to pay for shares of our Common Stock.

### **We Are Subject to Stringent Environmental Regulation**

We use or generate certain hazardous substances in our research and manufacturing facilities. We believe that our handling of such substances is in material compliance with applicable local, state and federal environmental, safety and health regulations at each operating location. We invest substantially in proper protective equipment, process controls and specialized training to minimize risks to employees, surrounding communities and the environment resulting from the presence and handling of such hazardous substances. We regularly conduct employee physical examinations and workplace monitoring regarding such substances. When exposure problems or potential exposure problems have been uncovered, corrective actions have been implemented and re-occurrence has been minimal or non-existent. We do not carry environmental impairment insurance.

We have in place an emergency response plan with respect to our generation and use of the hazardous substance Hydrogen Selenide. Special attention has been given to all procedures pertaining to this gaseous material to minimize the chances of its accidental release into the atmosphere.

With respect to the manufacturing, use, storage and disposal of the low-level radioactive material Thorium Fluoride, our facilities and procedures have been inspected and licensed by the Nuclear Regulatory Commission. Thorium-bearing by-products are collected and shipped as solid waste to a government-approved low-level radioactive waste disposal site in Clive, Utah.

The generation, use, collection, storage and disposal of all other hazardous by-products, such as suspended solids containing heavy metals or airborne particulates, are believed by us to be in material compliance with regulations. We believe that we have obtained all of the permits and licenses required for operation of our business.

Although we do not know of any material environmental, safety or health problems in our properties or processes, there can be no assurance that problems will not develop in the future which could have a material adverse effect on our business, results of operations or financial condition.

### **We Are Subject to Governmental Regulation**

We are subject to extensive regulation by U.S. and non-U.S. governmental entities and other entities at the federal, state and local levels, including, but not limited to, the following:

- We are required to comply with various import laws and export control and economic sanctions laws, which may affect our transactions with certain customers, business partners and other persons, including in certain cases dealings with or between our employees and subsidiaries. In certain circumstances, export control and economic sanctions regulations may prohibit the export of certain products, services and technologies, and in other circumstances we may be required to obtain an export license before exporting the controlled item. Compliance with the various import laws that apply to our businesses may restrict our access to, and may increase the cost of obtaining, certain products and could interrupt our supply of imported inventory.
- Exported technology necessary to develop and manufacture certain of the Company's products are subject to U.S. export control laws and similar laws of other jurisdictions, and the Company may be subject to adverse regulatory consequences, including government oversight of facilities and export transactions, monetary penalties and other sanctions for violations of these laws. In many cases, exports of technology necessary to develop and manufacture the Company's products are subject to U.S. export control laws. In certain instances, these regulations may prohibit the Company from developing or manufacturing certain of its products for specific end applications outside the U.S.
- Our agreements relating to the sale of products to government entities may be subject to termination, reduction or modification in the event of changes in government requirements, reductions in federal spending and other factors. We are also subject to investigation and audit for compliance with the requirements of government contracts, including requirements related to procurement integrity, export control, employment practices, the accuracy of records and the recording of costs. A failure to comply with these requirements might result in suspension of these contracts and suspension or debarment from government contracting or subcontracting.

In addition, failure to comply with any of these laws and regulations could result in civil and criminal, monetary and non-monetary penalties, disruptions to our business, limitations on our ability to import and export products and services and damage to our reputation.

### **Natural Disasters or Other Global or Regional Catastrophic Events Could Disrupt Our Operations and Adversely Affect Results**

Despite our concerted effort to minimize risk to our production capabilities and corporate information systems and to reduce the effect of unforeseen interruptions to us through business continuity planning, we still may be exposed to interruptions due to catastrophe, natural disaster, pandemic, terrorism or acts of war which are beyond our control. Disruptions to our facilities or systems, or to those of our key suppliers, could also interrupt operational processes and adversely impact our ability to manufacture our products and provide services and support to our customers. As a result, our business, results of operations or financial condition could be materially adversely affected.

## **We Rely on Stable Information and Communication Technologies; Outages or Control Breakdowns Could Disrupt our Operations and Impact Our Financial Results**

We have in place a number of controls, processes and practices designed to protect against intentional or unintentional misappropriation or corruption of our networks, systems and information or disruption of our operations due to a cyber-incident. Despite such efforts, we could be subject to service outages or breaches of security systems which may result in disruption, unauthorized access, misappropriation, or corruption of the information we are trying to protect. Security breaches of our network or data including physical or electronic break-ins, vendor service outages, computer viruses, attacks by hackers or similar breaches, can create system disruptions, shutdowns, or unauthorized disclosure of confidential information. If we are unable to prevent such security or privacy breaches, our operations could be disrupted or we may suffer loss of reputation, financial loss, property damage, or regulatory penalties because of lost or misappropriated information.

### **Recently Issued Financial Accounting Standards**

In March 2013, the Financial Accounting Standards Board (“FASB”) issued an accounting standards update related to a parent’s accounting for the cumulative translation adjustment upon de-recognition of certain subsidiaries or groups of assets within a foreign entity or of an investment in a foreign entity. The update clarifies the applicable guidance under current U.S. generally accepted accounting principles for the release of the cumulative translation adjustment upon a reporting entity’s de-recognition of a subsidiary or group of assets within a foreign entity or part or all of its investment in a foreign entity. The update requires a reporting entity, which either sells a part or all of its investment in a foreign entity or ceases to have a controlling financial interest in a subsidiary or group of assets within a foreign entity, to release any related cumulative translation adjustment into net income. This update is effective prospectively for fiscal years beginning after December 15, 2013 and will be effective for the Company beginning in the first quarter of fiscal year 2015. The adoption of this standard is not expected to have a significant impact on the Company’s consolidated financial statements.

In February 2013, the FASB issued an accounting standards update related to disclosure requirements of reclassifications out of accumulated other comprehensive income. The adoption of the guidance requires the Company to provide information about the amounts reclassified out of accumulated other comprehensive income by component. In addition, the Company is required to present, either on the face of the statement where net income is presented or in the notes, significant amounts reclassified from each component of accumulated other comprehensive income and the income statement line items affected by the reclassification. This update will be effective for the Company beginning in the first quarter of fiscal year 2014 and is not expected to have a significant impact on the Company’s consolidated financial statements. In July 2012, the FASB issued an accounting standards update related to impairment testing of indefinite-lived intangible assets. The update simplified the guidance of testing for potential impairment of indefinite-lived intangible assets other than goodwill. The amendment provides entities the option to first assess qualitative factors to determine whether it is necessary to perform the quantitative impairment test. An entity electing to perform a qualitative assessment is no longer required to calculate the fair value of an indefinite-lived intangible asset unless the organization determines, based on a qualitative assessment, that it is “more likely than not” (that is, a likelihood of more than 50 percent) that the asset is impaired. The amendments in this update are effective for annual and interim impairment tests performed for fiscal years beginning after September 15, 2012. Early adoption was permitted. The adoption of this standard did not have a significant impact on the Company’s consolidated financial statements and indefinite-lived intangible asset impairment testing.

In September 2011, the FASB issued an accounting standards update related to goodwill impairment testing. The objective of the accounting standards update was to simplify how entities test goodwill for impairment by permitting an assessment of qualitative factors to determine whether it is more likely than not that the fair value of a reporting unit is less than its carrying amount as a basis for determining whether it is necessary to perform the two-step goodwill impairment test. This update also allowed entities an unconditional option to bypass this qualitative assessment and proceed directly to performing the first step of the goodwill impairment test. An entity

may resume performing the qualitative assessment in any subsequent period. This accounting standard update was effective for annual and interim goodwill impairment tests performed for fiscal years beginning on or after December 15, 2011, with early adoption permitted. The adoption of this standard did not have a significant impact on the Company's consolidated financial statements and goodwill impairment testing.

In June 2011, the FASB issued changes to the presentation of comprehensive income that require entities to present the total of comprehensive income, the components of net income, and the components of other comprehensive income either in a single continuous statement of comprehensive income or in two separate but consecutive statements. The option to present components of other comprehensive income as part of the statement of changes in stockholders' equity is no longer permitted. This guidance, with retrospective application, was adopted by the Company in the first quarter of fiscal year 2013. Other than the change in presentation, these changes have had no impact on the consolidated financial statements and the calculation and presentation of earnings per share.

**Item 1B. UNRESOLVED STAFF COMMENTS**

None.

## Item 2. PROPERTIES

Information regarding our principal U.S. properties at June 30, 2013 is set forth below:

<u>Location</u>	<u>Primary Use(s)</u>	<u>Primary Business Segment(s)</u>	<u>Square Footage</u>	<u>Ownership</u>
Saxonburg, PA	Manufacturing, Corporate Headquarters and Research and Development	Infrared Optics and Advanced Products Group	252,000	Owned and Leased
Newark, DE	Manufacturing and Research and Development	Advanced Products Group	90,000	Leased
Temecula, CA	Manufacturing and Research and Development	Military & Materials	87,000	Leased
Dallas, TX	Manufacturing and Research and Development	Advanced Products Group	68,000	Owned and Leased
New Port Richey and Port Richey, FL	Manufacturing and Research and Development	Military & Materials and Near- Infrared Optics	67,000	Owned
Monroe, CT	Manufacturing and Research and Development	Advanced Products Group	48,000	Leased
Tustin, CA	Manufacturing and Research and Development	Military & Materials	37,000	Leased
Santa Rosa, CA	Manufacturing and Research and Development	Near-Infrared Optics	33,000	Leased
Philadelphia, PA	Manufacturing and Research and Development	Military & Materials	30,000	Leased
Pine Brook, NJ	Manufacturing and Research and Development	Advanced Products Group	26,000	Leased
Newtown, CT	Manufacturing and Research and Development	Advanced Products Group	19,000	Leased

<u>Location</u>	<u>Primary Use(s)</u>	<u>Primary Business Segment(s)</u>	<u>Square Footage</u>	<u>Ownership</u>
Woburn, MA	Manufacturing and Research and Development	Near-Infrared Optics	17,000	Leased
Vista, CA	Manufacturing and Research and Development	Military & Materials	10,000	Leased
Starkville, MS	Manufacturing	Advanced Products Group	10,000	Leased
Flemington, NJ	Manufacturing and Research and Development	Near-Infrared Optics	5,000	Leased
Sunnyvale, CA	Distribution	Near-Infrared Optics	2,300	Leased

Information regarding our principal foreign properties at June 30, 2013 is set forth below:

<u>Location</u>	<u>Primary Use(s)</u>	<u>Primary Business Segment(s)</u>	<u>Square Footage</u>	<u>Ownership</u>
China	Manufacturing	Infrared Optics, Near-Infrared Optics and Advanced Products Group	1,030,000	Leased
Philippines	Manufacturing	Military & Materials	249,000	Leased
Vietnam	Manufacturing	Near-Infrared Optics and Advanced Products Group	99,000	Leased
Germany	Manufacturing and Distribution	Infrared Optics, Near-Infrared Optics and Advanced Products Group	48,000	Leased
Singapore	Manufacturing	Infrared Optics	35,000	Leased
Australia	Manufacturing and Research and Development	Near-Infrared Optics	18,000	Leased
Japan	Distribution	Infrared Optics, Near-Infrared Optics and Advanced Products Group	4,000	Leased
Switzerland	Distribution	Infrared Optics	3,000	Leased
Belgium	Distribution	Infrared Optics	3,000	Leased
Italy	Distribution	Infrared Optics and Near-Infrared Optics	2,000	Leased
United Kingdom	Distribution	Infrared Optics and Near-Infrared Optics	1,500	Leased

The square footage listed for each of the above properties represents facility square footage except in the case of the Philippines location which includes land.

### **Item 3. LEGAL PROCEEDINGS**

The Company and its subsidiaries are involved in various claims and lawsuits incidental to its business. The resolution of each of these matters is subject to various uncertainties, and it is possible that these matters may be

resolved unfavorably to the Company. Management believes, after consulting with legal counsel, that the ultimate liabilities, if any, resulting from such legal proceedings will not materially affect the Company's financial position, liquidity or results of operation.

**Item 4. MINE SAFETY DISCLOSURES**

Not applicable.

## EXECUTIVE OFFICERS OF THE REGISTRANT

The executive officers of the Company and their respective ages and positions are set forth below. Each executive officer listed has been appointed by the Board of Directors to serve until removed or until such person's successor is appointed and qualified.

<u>Name</u>	<u>Age</u>	<u>Position</u>
Francis J. Kramer	64	President, Chief Executive Officer and Director
Vincent D. Mattera, Jr.	57	Executive Vice President and Director
Craig A. Creaturo	43	Chief Financial Officer and Treasurer
James Martinelli	55	Vice President – Military & Materials Businesses

**Francis J. Kramer** has been employed by the Company since 1983, has been its President since 1985, and has been its Chief Executive Officer since July 2007. Mr. Kramer has served as a Director of the Company since 1989. Previously, Mr. Kramer served as Chief Operating Officer from 1985 through June 2007. Mr. Kramer joined the Company as Vice President and General Manager of Manufacturing and was named Executive Vice President and General Manager of Manufacturing in 1984. Prior to his employment by the Company, Mr. Kramer was the Director of Operations for the Utility Communications Systems Group of Rockwell International Corp. Mr. Kramer graduated from the University of Pittsburgh with a B.S. degree in Industrial Engineering and from Purdue University with a M.S. degree in Industrial Administration.

**Vincent D. Mattera, Jr.** has been employed by the Company since 2004 and has been Executive Vice President since January 2010. Dr. Mattera has served as a Director of the Company since 2012. Previously, Dr. Mattera was Vice President of the Advanced Products Group from 2004 to 2010. Dr. Mattera served as Vice President, Undersea Optical Transport, Agere Systems (formerly Lucent Technologies, Microelectronics and Communications Technologies Group) from 2001 to 2004. Previously, Dr. Mattera served as Optoelectronic Device Manufacturing and Process Development Vice President with Lucent Technologies, Microelectronics and Communications Technologies Group from 2000 until 2001. He was Director of Optoelectronic Device Manufacturing and Development at Lucent Technologies, Microelectronics Group from 1997 to 2000. From 1995 to 1997 he served as Director, Indium Phosphide Semiconductor Laser Chip Design and Process Development with Lucent Technologies, Microelectronics Group. From 1984 to 1995 he held management positions with AT&T Bell Laboratories. Dr. Mattera holds B.S. and Ph.D. degrees in Chemistry from the University of Rhode Island and Brown University, respectively.

**Craig A. Creaturo** has been employed by the Company since 1998 and has been its Chief Financial Officer since 2004 and Treasurer since 2000. Previously, Mr. Creaturo served as Chief Accounting Officer, Director of Finance, Accounting and Information Systems and Corporate Controller. Prior to his employment by the Company, Mr. Creaturo was employed by the Pittsburgh, Pennsylvania office of Arthur Andersen LLP from 1992 to 1998 and served in the audit and attestation division with a final position as Audit Manager. Mr. Creaturo graduated from Grove City College with a B.S. degree in Accounting. Mr. Creaturo is a Certified Public Accountant in the Commonwealth of Pennsylvania and is a member of the American Institute of Certified Public Accountants and the Pennsylvania Institute of Certified Public Accountants.

**James Martinelli** has been employed by the Company since 1986 and has been Vice President – Military & Materials Businesses since February 2003. Previously, Mr. Martinelli served as General Manager of Laser Power Corporation from 2000 to 2003. Mr. Martinelli joined the Company as Accounting Manager in 1986, was named Corporate Controller in 1990 and named Chief Financial Officer and Treasurer in 1994. Prior to his employment with the Company, Mr. Martinelli served as Accounting Manager at Tippins Incorporated and Pennsylvania Engineering Corporation from 1980 to 1985. Mr. Martinelli graduated from Indiana University of Pennsylvania with a B.S. degree in Accounting.



## PART II

### Item 5. MARKET FOR REGISTRANT'S COMMON EQUITY, RELATED STOCKHOLDER MATTERS AND ISSUER PURCHASES OF EQUITY SECURITIES

The Company's Common Stock is traded on the NASDAQ Global Select Market ("NASDAQ") under the symbol "IIVI." The following table sets forth the range of high and low closing sale prices per share of the Company's Common Stock for the fiscal periods indicated, as reported by NASDAQ.

	<b>High</b>	<b>Low</b>
<b>Fiscal 2013</b>		
First Quarter	\$19.63	\$15.86
Second Quarter	\$19.87	\$15.85
Third Quarter	\$19.67	\$16.58
Fourth Quarter	\$17.54	\$14.81
	<b>High</b>	<b>Low</b>
<b>Fiscal 2012</b>		
First Quarter	\$27.89	\$17.10
Second Quarter	\$21.14	\$16.43
Third Quarter	\$24.47	\$18.28
Fourth Quarter	\$24.11	\$16.13

On August 20, 2013, the last reported sale price for the Company's Common Stock was \$19.78 per share. As of such date, there were approximately 845 holders of record of our Common Stock. The Company historically has not paid cash dividends and does not anticipate paying cash dividends in the foreseeable future.

### ISSUER PURCHASES OF EQUITY SECURITIES

In May 2012, the Board of Directors authorized the Company to purchase up to \$25.0 million of its Common Stock. The repurchase program called for shares to be purchased in the open market or in private transactions from time to time. Shares purchased by the Company are retained as treasury stock and available for general corporate purposes. During the fiscal years ended June 30, 2013 and 2012, the Company purchased 1,141,022 shares and 301,716 shares of its Common Stock for \$20.0 million and \$5.0 million, respectively, under the repurchase program. There were no outstanding repurchase programs at June 30, 2013. The following table provides information with respect to purchases of the Company's equity securities during the quarter ended June 30, 2013.

<b>Period</b>	<b>Total Number of Shares Purchased</b>	<b>Average Price Paid Per Share</b>	<b>Total Number of Shares Purchased as Part of Publicly Announced Plans or Programs<sup>(a)</sup></b>	<b>Dollar Value of Shares That May Yet be Purchased Under the Plan or Program</b>
April 1, 2013 to April 30, 2013	75 <sup>(a)</sup>	\$15.51	—	\$—
May 1, 2013 to May 31, 2013	—	\$ —	—	\$—
June 1, 2013 to June 30, 2013	—	\$ —	—	\$—
Total	75	\$15.51	—	

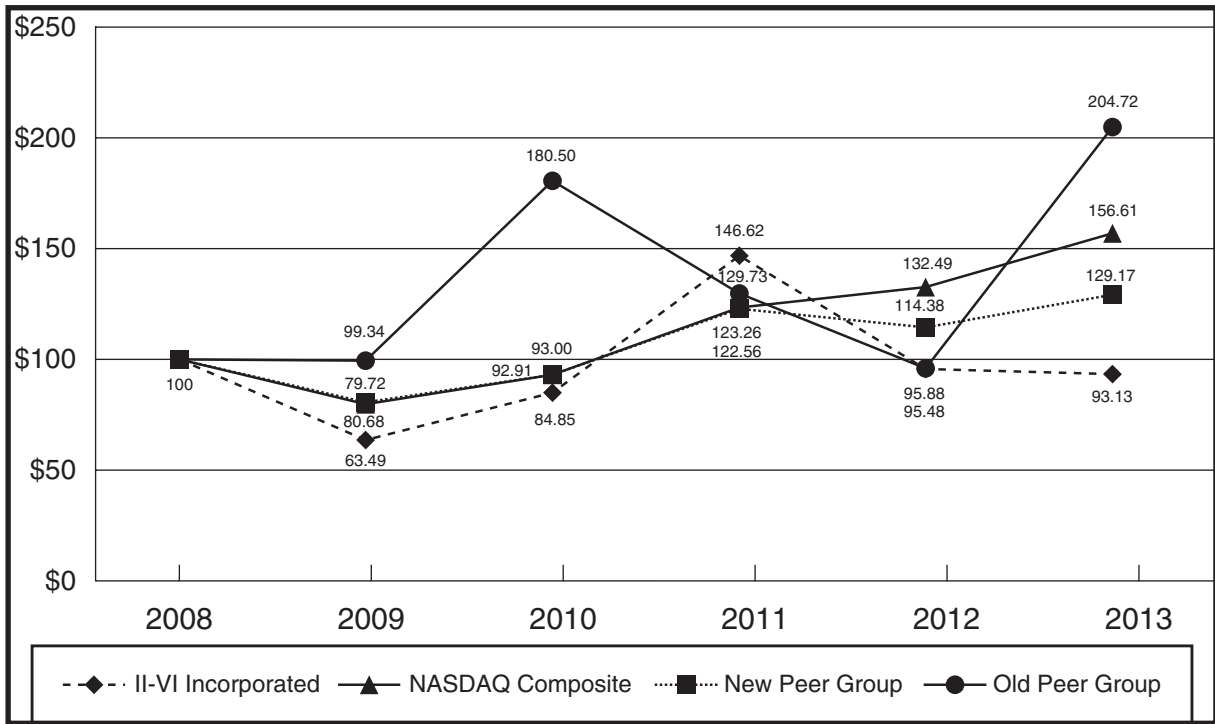
<sup>(a)</sup> Represents 75 shares of our common stock transferred to the Company from employees in satisfaction of minimum tax withholding obligations associated with the vesting of restricted share awards.

The information incorporated by reference in Item 12 of this Annual Report on Form 10-K from our 2013 Proxy Statement under the heading "Equity Compensation Plan Information" is hereby incorporated by reference into this Item 5.

**PERFORMANCE GRAPH**

The following graph compares cumulative total shareholder return on the Company’s Common Stock with the cumulative total shareholder return of the Nasdaq Composite Index and with a peer group of companies constructed by the Company for the period from June 30, 2008, through June 30, 2013. The Company’s current fiscal year peer group includes Cabot Microelectronics Corporation, Franklin Electric Co., Inc., MKS Instruments, Inc., Rofin-Sinar Technologies, Inc. and Silicon Laboratories. The Company’s prior fiscal year peer group reflected below consisted of Cree Inc., Rofin-Sinar Technologies, Inc. and Rogers Corp. The prior year peer group does not include Ceradyne, Inc. and Cymer Inc. as these companies were acquired during fiscal year 2013 and ceased to be publicly traded.

**COMPARISON OF 5 YEAR CUMULATIVE TOTAL RETURN\***  
**Among II-VI Incorporated, the NASDAQ Composite Index,**  
**New Peer Group, and Old Peer Group**



\* \$100 invested on 6/30/08 in stock or index, including reinvestment of dividends.  
 Fiscal year ending June 30.

## Item 6. SELECTED FINANCIAL DATA

### Five-Year Financial Summary

The following selected financial data for the five fiscal years presented are derived from II-VI's audited consolidated financial statements as adjusted to reflect the Company's eV PRODUCTS business as a discontinued operation for fiscal year 2009. The data should be read in conjunction with the consolidated financial statements and the related notes thereto included elsewhere in this Annual Report on Form 10-K.

Year Ended June 30,	2013	2012	2011	2010	2009
<i>(000 except per share data)</i>					
<b>Statement of Earnings</b>					
Net revenues from continuing operations	\$558,396	\$534,630	\$502,801	\$345,091	\$292,222
Earnings from continuing operations	51,931	61,275	83,018	38,735	38,911
Loss from discontinued operation	—	—	—	—	(2,077)
Net earnings attributable to noncontrolling interest	1,118	969	336	158	53
Net earnings attributable to II-VI Incorporated	50,813	60,306	82,682	38,577	36,781
Basic earnings (loss) per share:					
Continuing operations	0.81	0.96	1.33	0.64	0.66
Discontinued operation	—	—	—	—	(0.04)
Consolidated	0.81	0.96	1.33	0.64	0.62
Diluted earnings (loss) per share:					
Continuing operations	0.80	0.94	1.30	0.63	0.65
Discontinued operation	—	—	—	—	(0.04)
Consolidated	0.80	0.94	1.30	0.63	0.61
Diluted weighted average shares outstanding	63,884	64,385	63,612	61,504	60,164

*Share and per share data for the 2009 and 2010 periods presented were adjusted to reflect the two-for-one stock split in fiscal year 2011.*

Year Ended June 30,	2013	2012	2011	2010	2009
<i>(\$000)</i>					
<b>Balance Sheet</b>					
Working capital	\$366,710	\$326,645	\$304,573	\$215,085	\$198,244
Total assets, including assets held for sale	863,802	706,486	647,202	508,981	368,416
Long-term debt	114,036	12,769	15,000	3,384	3,665
Total debt	114,036	12,769	18,729	3,384	3,665
Retained earnings	482,878	434,940	377,264	295,380	256,941
Shareholders' equity	636,108	586,226	521,273	410,050	322,211

## **Item 7. MANAGEMENT’S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS**

### **Forward-Looking Statements**

Certain statements contained in this Management’s Discussion and Analysis of Financial Condition and Results of Operations are forward-looking statements. Forward-looking statements are also identified by words such as “expects,” “anticipates,” “believes,” “intends,” “plans,” “projects” or similar expressions. Actual results could differ materially from those anticipated in these forward-looking statements for many reasons, including risk factors described in the Risk Factors set forth in Item 1A of this Annual Report on Form 10-K, which are incorporated herein by reference.

### **Overview**

The Company generates revenues, earnings and cash flows from developing, manufacturing and marketing engineered materials and opto-electronic components for precision use in industrial, military, optical communications, semiconductor, medical and consumer applications. We also generate revenue, earnings and cash flows from government funded research and development contracts relating to the development and manufacture of new technologies, materials and products.

Our customer base includes OEMs, laser end users, system integrators of high-power lasers, manufacturers of equipment and devices for the industrial, military, optical communications, semiconductor and medical markets, U.S. Government prime contractors, various U.S. Government agencies and thermoelectric integrators.

### **Critical Accounting Estimates**

The preparation of financial statements and related disclosures in conformity with accounting principles generally accepted in the United States of America (“U.S. GAAP”) and the Company’s discussion and analysis of its financial condition and results of operations requires the Company’s management to make judgments, assumptions and estimates that affect the amounts reported in its consolidated financial statements and accompanying notes. Note 1 of the Notes to our Consolidated Financial Statements contained in Item 8 of this Annual Report on Form 10-K describes the significant accounting policies and accounting methods used in the preparation of the Company’s consolidated financial statements. Management bases its estimates on historical experience and on various other assumptions that it believes to be reasonable under the circumstances, the results of which form the basis for making judgments about the carrying values of assets and liabilities. Actual results may differ from these estimates.

Management believes the Company’s critical accounting estimates are those related to revenue recognition, allowance for doubtful accounts, warranty reserves, inventory valuation, business combinations, valuation of long-lived assets including acquired intangibles and goodwill, accrual of bonus and profit sharing estimates, accrual of income tax liability estimates and accounting for share-based compensation. Management believes these estimates to be critical because they are both important to the portrayal of the Company’s financial condition and results of operations, and they require management to make judgments and estimates about matters that are inherently uncertain.

Management has discussed the development and selection of these critical accounting estimates with the Audit Committee of the Board of Directors and the Audit Committee has reviewed the foregoing disclosure. In addition, there are other items within our financial statements that require estimation, but are not deemed critical as defined above. Changes in estimates used in these and other items could have a material impact on the financial statements.

The Company recognizes revenues in accordance with U.S. GAAP. Revenues for product shipments are realizable when we have persuasive evidence of a sales arrangement, the product has been shipped or delivered,

the sale price is fixed or determinable and collectability is reasonably assured. Title and risk of loss passes from the Company to its customer at the time of shipment in most cases with the exception of certain customers. For these customers title does not pass and revenue is not recognized until the customer has received the product at its physical location.

The Company's revenue recognition policy is consistently applied across the Company's segments, product lines and geographical locations. Further, we do not have post shipment obligations such as training or installation, customer acceptance provisions, credits and discounts, rebates and price protection or other similar privileges. Our distributors and agents are not granted price protection. Our distributors and agents, who comprise less than 10% of consolidated revenue, have no additional product return rights beyond the right to return defective products that are covered by our warranty policy. We believe our revenue recognition practices are consistent with Staff Accounting Bulletin ("SAB") 104 and that we have adequately considered the requirements of Accounting Standards Codification ("ASC") 605 Revenue Recognition. Revenues generated from transactions other than product shipments are contract-related and have historically accounted for less than 5% of the Company's consolidated revenues.

The Company establishes an allowance for doubtful accounts based on historical experience and believes the collection of revenues, net of these reserves, is reasonably assured. The allowance for doubtful accounts is an estimate for potential non-collection of accounts receivable based on historical experience. The Company has not experienced a non-collection of accounts receivable materially affecting its financial position or results of operations as of and for the fiscal years ended June 30, 2013, 2012 and 2011. If the financial condition of the Company's customers were to deteriorate, causing an impairment of their ability to make payments, additional provisions for bad debts could be required in future periods. The Company records a warranty reserve as a charge against earnings based on a historical percentage of revenues utilizing actual returns over a period that approximates historical warranty experience. If actual returns in the future are not consistent with the historical data used to calculate these estimates, additional warranty reserves could be required. Our allowance for doubtful accounts and warranty reserve balances at June 30, 2013 was approximately \$1.5 million and \$1.7 million, respectively. Our reserve estimates have historically been proven to be materially correct based upon actual charges incurred.

The Company records an inventory reserve as a charge against earnings for all products on hand for more than twelve to eighteen months, depending on the products that have not been sold to customers or cannot be further manufactured for sale to alternative customers. An additional reserve is recorded for product on hand that is in excess of product sold to customers over the same periods noted above. If actual market conditions are less favorable than projected, additional inventory reserves may be required.

The Company accounts for business acquisitions by establishing the acquisition-date fair value as the measurement for all assets acquired and liabilities assumed. Certain provisions of U.S. GAAP prescribe, among other things, the determination of acquisition-date fair value of consideration paid in a business combination (including contingent consideration) and the exclusion of transaction and acquisition-related restructuring costs from acquisition accounting.

The Company tests goodwill and indefinite-lived intangible assets on an annual basis for impairment or when events or changes in circumstances indicate that goodwill or indefinite-lived intangible assets might be impaired. Other intangible assets are amortized over their estimated useful lives. The determination of the estimated useful lives of other intangible assets and whether goodwill or indefinite-lived intangibles are impaired requires us to make judgments based upon long-term projections of future performance. Estimates of fair value are based on our projection of revenues, operating costs and cash flows of each reporting unit considering historical and anticipated results and general economic and market conditions. The fair values of the reporting units are determined using a discounted cash flow analysis based on historical and projected financial information as well as market analysis. The carrying value of goodwill at June 30, 2013, 2012 and 2011 was \$123.4 million, \$80.7 million and \$64.3 million, respectively. The annual goodwill impairment analysis considers the financial projections of the reporting unit based on the most recently completed budgeting and long-term strategic

planning processes and also considers the current financial performance compared to the prior projections of the reporting unit. Changes in our financial performance, judgments and projections could result in an impairment of goodwill or indefinite-lived intangible assets.

As a result of the purchase price allocations from our prior acquisitions, and due to our decentralized structure, our goodwill is included in multiple reporting units. Due to the cyclical nature of our business, and the other factors described in the section on Risk Factors set forth in Item 1A of this Annual Report on Form 10-K, the profitability of our individual reporting units may periodically suffer from downturns in customer demand, operational challenges and other factors. These factors may have a relatively more pronounced impact on the individual reporting units as compared to the Company as a whole, and might adversely affect the fair value of the individual reporting units. If material adverse conditions occur that impact one or more of our reporting units, our determination of future fair value may not support the carrying amount of one or more of our reporting units, and the related goodwill would need to be impaired.

The Company records certain bonus and profit sharing estimates as a charge against earnings. These estimates are adjusted to actual based on final results of operations achieved during the fiscal year. Certain partial bonus amounts are paid quarterly based on interim Company performance, and the remainder is paid after fiscal year end. Other bonuses are paid annually.

The Company prepares and files tax returns based on its interpretation of tax laws and regulations and records estimates based on these judgments and interpretations. In the normal course of business, the Company's tax returns are subject to examination by various taxing authorities, which may result in future tax, interest and penalty assessments by these authorities. Inherent uncertainties exist in estimates of many tax positions due to changes in tax law resulting from legislation, regulation and/or as concluded through the various jurisdictions' tax court systems. The Company recognizes the tax benefit from an uncertain tax position only if it is more likely than not that the tax position will be sustained on examination by the taxing authorities, based on the technical merits of the position. The tax benefits recognized in the financial statements from such a position are measured based on the largest benefit that has a greater than 50 percent likelihood of being realized upon ultimate resolution. The amount of unrecognized tax benefits is adjusted for changes in facts and circumstances. For example, adjustments could result from significant amendments to existing tax law and the issuance of regulations or interpretations by the taxing authorities, new information obtained during a tax examination, or resolution of an examination. The Company believes that its estimates for uncertain tax positions are appropriate and sufficient to pay assessments that may result from examinations of its tax returns. The Company recognizes both accrued interest and penalties related to unrecognized tax benefits in income tax expense.

The Company has recorded valuation allowances against certain of its deferred tax assets, primarily those that have been generated from net operating losses in certain foreign taxing jurisdictions. In evaluating whether the Company would more likely than not recover these deferred tax assets, it has not assumed any future taxable income or tax planning strategies in the jurisdictions associated with these carry-forwards where history does not support such an assumption. Implementation of tax planning strategies to recover these deferred tax assets or future income generation in these jurisdictions could lead to the reversal of these valuation allowances and a reduction of income tax expense.

In accordance with U.S. GAAP, the Company recognizes share-based compensation expense over the requisite service period of the individual grantees, which generally equals the vesting period. The Company utilized the Black-Scholes valuation model for estimating the fair value of stock option expense using assumptions such as the risk-free interest rate, expected stock price volatility, expected stock option life and expected dividend yield. The risk-free interest rate is derived from the average U.S. Treasury Note rate during the period, which approximates the rate in effect at the time of grant related to the expected life of the options. Expected volatility is based on the historical volatility of the Company's Common Stock over the period commensurate with the expected life of the options. The expected life calculation is based on the observed time to post-vesting exercise and/or forfeitures of options by our employees. The dividend yield is zero, based on the fact the Company has never paid cash dividends and has no current intention to pay cash dividends in the future.

Effective July 1, 2012, the Company changed its segment reporting structure to include VLOC Incorporated (“VLOC”) in the Company’s Military & Materials segment. VLOC was previously reported in the Company’s Near-Infrared Optics segment. All segment information presented in this Annual Report on Form 10-K has been retrospectively adjusted to include VLOC in the Military & Materials segment.

### Fiscal Year 2013 Compared to Fiscal Year 2012

The following table sets forth bookings and select items from our Consolidated Statements of Earnings for the years ended June 30, 2013 and 2012.

	<u>Year Ended June 30, 2013</u>		<u>Year Ended June 30, 2012</u>	
Bookings	<u>\$527.2</u>		<u>\$534.9</u>	
		<u>% of Revenues</u>		<u>% of Revenues</u>
Total Revenues	\$558.4	100.0%	\$534.6	100.0%
Cost of goods sold	<u>360.8</u>	<u>64.6</u>	<u>341.9</u>	<u>64.0</u>
Gross margin	<u>197.6</u>	<u>35.4</u>	<u>192.7</u>	<u>36.0</u>
Operating Expenses:				
Internal research and development	22.7	4.1	21.4	4.0
Selling, general and administrative	110.2	19.7	99.4	18.6
Interest and other, net	<u>(6.0)</u>	<u>(1.1)</u>	<u>(7.0)</u>	<u>(1.3)</u>
Earnings before income tax	70.7	12.7	78.9	14.8
Income taxes	<u>18.8</u>	<u>3.4</u>	<u>17.6</u>	<u>3.3</u>
Net earnings	51.9	9.3	61.3	11.5
Net earnings attributable to noncontrolling interest	<u>1.1</u>	<u>0.2</u>	<u>1.0</u>	<u>0.2</u>
Net earnings attributable to II-VI Incorporated	<u>\$ 50.8</u>	<u>9.1</u>	<u>\$ 60.3</u>	<u>11.3</u>
Diluted earnings per-share	<u>\$ 0.80</u>		<u>\$ 0.94</u>	

### Executive Summary

Net earnings attributable to II-VI for the year ended June 30, 2013 of \$50.8 million (\$0.80 per-share diluted) were negatively impacted by several factors during the 2013 fiscal year. Most notably, the Company’s results were reflective of a \$4.4 million charge for inventory write-offs and equipment impairment associated with the recently announced discontinuation of the tellurium chemicals product line and downsizing of the selenium metal product line at PRM. In addition, PRM recorded a lower of cost or market inventory write-down of \$2.7 million during fiscal year 2013, mostly as a result of unfavorable market index pricing related to selenium. Despite these items, the Company believes that PRM is now better positioned for future profitability, as it will focus its efforts on its rare earth element product line as well as being an internal selenium supplier to the II-VI Infrared Optics segment. Net earnings were also impacted by \$1.1 million of transaction costs and \$0.7 million of incremental interest expense associated with the acquisitions and related financing of M Cubed, LightWorks, and the Thin Film Filter business and Interleaver product line. The Company also experienced higher levels of amortization and depreciation costs associated with the fair value purchase accounting of intangible assets as well as property, plant and equipment from these acquisitions. Although these charges negatively impacted earnings in fiscal year 2013, the Company believes that these acquisitions provide synergies, lasting growth prospects and the potential for broadening current product offerings, all of which are expected to contribute to future positive operating results. Net earnings were favorably impacted by a \$3.7 million settlement with a former contract manufacturer of Photop Aegis, Inc. (“Photop Aegis”) that was related to the October 2011 flooding that occurred in Thailand.

The benefit of this settlement helped offset certain earnings shortfalls driven by operational inefficiencies in fiscal year 2013 associated with restoring Photop Aegis to full capacity. In addition, the Company's year to date effective income tax rate was higher than the same period last fiscal year due to lower income levels in the Company's lower taxing jurisdictions such as the Philippines and Vietnam.

### *Consolidated*

**Bookings.** Bookings are defined as customer orders received that are expected to be converted to revenues over the next twelve months. For long-term customer orders, the Company does not include in bookings the portion of the customer order that is beyond twelve months, due to the inherent uncertainty of an order extending that far out in the future. Bookings for the year ended June 30, 2013 decreased 1% to \$527.2 million, compared to \$534.9 million for the same period last fiscal year. Excluding bookings of \$47.8 million related to the three fiscal year 2013 acquisitions, bookings decreased 10% when compared to the same period last fiscal year, mostly as a result of reduced orders at PRM, Photop and WBG. Bookings decreased at PRM as a result of weakening demand and pricing of its tellurium and selenium materials while bookings at Photop and Photop Aegis decreased due to a temporary cyclical demand shift caused by a technology transition from 40G to 100G in the optical communications market in China. In addition, WBG was negatively impacted by delayed spending from an annual government contract order as well as the bankruptcy of a large customer.

**Revenues.** Revenues for the year ended June 30, 2013 increased 4% to \$558.4 million, compared to \$534.6 million for the same period last fiscal year. Excluding revenues of \$52.3 million related to the three fiscal year 2013 acquisitions, revenues decreased 5% when compared to the same period last fiscal year, mostly as a result of reduced shipment volumes and unfavorable pricing at PRM for selenium and tellurium products. In addition, Marlow experienced a decline in revenue as a result of the end of life cycle of its gesture recognition product line.

**Gross margin.** Gross margin as a percentage of revenues for the year ended June 30, 2013 was 35.4%, compared to 36.0% for the same period last fiscal year. Gross margin in fiscal year 2013 was negatively impacted by \$4.4 million of inventory write-offs and equipment impairment associated with the discontinuation and downsizing of PRM's tellurium and selenium chemicals product lines, respectively, as well as an additional charge of \$2.7 million of selenium lower of cost or market write-downs. In addition, gross margin in fiscal 2013 was impacted negatively due to a change in product mix at Marlow as well as lower gross margin at recently acquired M Cubed, which carries a lower gross margin profile in comparison to other business units of the Company. Gross margin in fiscal year 2012 was negatively impacted by \$8.7 million of tellurium and selenium lower of cost or market write-downs at PRM.

**Internal research and development.** Company-funded internal research and development expenses for the year ended June 30, 2013 were \$22.7 million, or 4.1% of revenues, compared to \$21.4 million, or 4.0% of revenues, for the same period last fiscal year. Fiscal year 2013 internal research and development expenditures were consistent with prior year internal research and development expenditures as a percentage of revenues, as the Company's business units continued to invest in next generation products and technology to fuel future revenue and earnings growth.

**Selling, general and administrative.** Selling, general and administrative expenses for the year ended June 30, 2013 were \$110.2 million, or 19.7% of revenues, compared to \$99.4 million, or 18.6% of revenues, for the same period last fiscal year. Selling, general and administrative expense as a percentage of revenues increased during the current fiscal year compared to the same period last fiscal year, mostly as a result of transaction expenses of \$1.1 million related to the three acquisitions that were completed during fiscal year 2013. In addition, the Company's recent acquisitions contributed to the higher level of selling, general and administration expense while higher share-based compensation expense also contributed to the unfavorable change in selling, general and administrative expenses as a percentage of revenues.



**Interest and other, net.** Interest and other, net for the year ended June 30, 2013 and 2012 was income of \$6.0 million and \$7.0 million, respectively. Included in interest and other, net for the year ended June 30, 2013 was \$4.8 million of other income related to the contractual settlement related to the Thailand flooding, gains on the deferred compensation plan of \$0.6 million, equity investment earnings of \$1.0 million and interest income on excess cash reserves that more than offset interest expense. These favorable items were somewhat offset by foreign currency losses due to the weakening U.S. dollar. Included in interest and other, net for the year ended June 30, 2012 was a \$1.0 million gain related to the Company's sale of its equity investment in Langfang Haobo Diamond Co. Ltd., a \$1.4 million gain related to the sale of precious metals inventory, favorable foreign currency gains resulting from the weakening Euro, earnings from equity investments and interest income on excess cash reserves.

**Income taxes.** The Company's year-to-date effective income tax rate at June 30, 2013 and 2012 was 26.5% and 22.3%, respectively. The variations between the Company's effective tax rates and the U.S. statutory rate of 35.0% were primarily due to the consolidation of the Company's foreign operations, which are subject to income taxes at lower statutory rates. A change in the mix of pretax income from these various tax jurisdictions could have a material impact on the Company's effective tax rate. During fiscal year 2013, the Company's year-to-date effective income tax rate was higher than the same period last fiscal year due to lower income levels in the Company's lower taxing jurisdictions such as the Philippines and Vietnam.

### ***Segment Reporting***

Bookings, revenues and segment earnings for the Company's reportable segments are discussed below. Segment earnings differ from income from operations in that segment earnings exclude certain operational expenses included in other expense (income) – net as reported. Management believes segment earnings to be a useful measure as it reflects the results of segment performance over which management has direct control and is used by management in its evaluation of segment performance. See "Note 12. Segment and Geographic Reporting," included in this Annual Report on Form 10-K for further information on the Company's reportable segments and for the reconciliation of segment earnings to net earnings, which is incorporated herein by reference.

#### ***Infrared Optics (millions)***

	<b>Year Ended June 30,</b>		<b>% Increase (Decrease)</b>
	<b>2013</b>	<b>2012</b>	
<b>Bookings</b>	\$200.7	\$206.1	(3)%
<b>Revenues</b>	\$203.3	\$201.6	1%
<b>Segment earnings</b>	\$ 49.5	\$ 51.1	(3)%

The Company's Infrared Optics segment includes the combined operations of Infrared Optics and HIGHYAG.

Bookings for the year ended June 30, 2013 for Infrared Optics decreased 3% to \$200.7 million, compared to \$206.1 million for the same period last fiscal year. The decrease in bookings for the year ended June 30, 2013 compared to the same period last fiscal year was primarily driven by decreased demand from OEMs for new high-power CO<sub>2</sub> laser systems in Japan in the early part of the current fiscal year combined with reduced demand for optics used in the U.S. military market due to the economic uncertainties in these market sectors.

Revenues for the year ended June 30, 2013 for Infrared Optics were consistent with the prior year. Revenue shortfalls from Japanese OEMs and U.S. military customers were offset by increased shipments for CVD diamond window optics used in high-power laser applications and EUV lithography systems in Europe, as well as increased shipments at HIGHYAG for its one-micron welding and cutting heads used in automotive manufacturing.

Segment earnings for the year ended June 30, 2013 for Infrared Optics were \$49.5 million, compared to \$51.1 million for the same period last fiscal year. The decrease in segment earnings for the year ended June 30, 2013 compared to the same period last fiscal year was the result of reduced gross margins caused by higher raw material input prices and a higher level of allocated corporate expenses related to share-based compensation and transaction costs incurred by the Company in connection with its fiscal year 2013 completed acquisitions.

*Near-Infrared Optics (millions)*

	<b>Year Ended June 30,</b>		<b>% Increase (Decrease)</b>
	<b>2013</b>	<b>2012</b>	
<b>Bookings</b>	\$145.7	\$155.1	(6)%
<b>Revenues</b>	\$154.9	\$140.0	11%
<b>Segment earnings</b>	\$ 19.6	\$ 14.1	40%

The Company's Near-Infrared Optics segment includes the combined operations of Photop, Photop Aegis and Photop AOFR Pty. Limited ("AOFR").

Bookings for the year ended June 30, 2013 for Near-Infrared Optics decreased 6% to \$145.7 million, compared to \$155.1 million for the same period last fiscal year. The decrease in bookings for the current year compared to the same period last fiscal year was mostly due to cyclical softening demand for optical components used in the telecommunications market in China, due to delayed spending by OEMs as a result of the transitioning technology shift from 40G to 100G platforms for high-speed networking service. In addition, certain customer contracts specific to Photop's green laser business reached their end of life in fiscal year 2013. These decreases more than offset incremental bookings associated with the December 2013 acquisition of the business and product line from Oclaro.

Revenues for the year ended June 30, 2013 for Near-Infrared Optics increased 11% to \$154.9 million, compared to \$140.0 million for the same period last fiscal year. The increase in revenues for the current year compared to the same period last fiscal year was primarily driven by incremental thin film filter and interleaver product shipments associated with the December 2013 acquisition of the business and product line from Oclaro.

Segment earnings for the year ended June 30, 2013 for Near-Infrared Optics increased 40% to \$19.6 million, compared to \$14.1 million for the same period last fiscal year. The increase in segment earnings for the year ended June 30, 2013 compared to the same period last fiscal year was driven by higher sales volumes at Photop, production and operational efficiencies realized in recovering from the October 2011 Thailand flood, and the addition of the thin film filter business and interleaver product line.

*Military & Materials (millions)*

	<b>Year Ended June 30,</b>		<b>% (Decrease)</b>
	<b>2013</b>	<b>2012</b>	
<b>Bookings</b>	\$ 94.1	\$106.3	(11)%
<b>Revenues</b>	\$104.4	\$118.5	(12)%
<b>Segment earnings (loss)</b>	\$ (6.1)	\$ (1.7)	(270)%

The Company's Military & Materials segment includes the combined operations of Exotic Electro-Optics ("EEO"), LightWorks, VLOC, Max Levy Autograph, Inc. ("MLA") and PRM.

Bookings for the year ended June 30, 2013 for Military & Materials decreased 11% to \$94.1 million, compared to \$106.3 million for the same period last fiscal year. The decrease in bookings for the current year compared to the same period last fiscal year was primarily driven by lower order volumes of selenium and tellurium at PRM

as well as unfavorable index pricing of these materials. In addition, reduced outlook for production of sapphire windows for the Joint Strike Fighter program caused a decrease in orders at EEO, which were more than offset by additional bookings from the 2013 acquisition of LightWorks business.

Revenues for the year ended June 30, 2013 for Military & Materials decreased 12% to \$104.4 million, compared to \$118.5 million for the same period last fiscal year. The decrease in revenues for the current year compared to the same period last fiscal year was primarily due to lower product demand and pricing for both tellurium and selenium at PRM, which more than offset the additional revenue resulting from the LightWorks acquisition.

Segment earnings (loss) for the year ended June 30, 2013 for Military & Materials was a segment loss of \$6.1 million, compared to a segment loss of \$1.7 million for the same period last fiscal year. The unfavorable change in segment earnings (loss) for the current year compared to the same period last fiscal year was due to charges at PRM of \$4.4 million related to inventory write-offs and equipment impairment associated with the decision to exit the tellurium chemical product lines combined with lower sales at PRM and losses incurred during the start-up of PRM's rare earth product line.

***Advanced Products Group (millions)***

	<b>Year Ended June 30,</b>		<b>%</b>
	<b>2013</b>	<b>2012</b>	<b>Increase Decrease</b>
<b>Bookings</b>	\$86.7	\$67.4	29%
<b>Revenues</b>	\$95.8	\$74.6	28%
<b>Segment earnings</b>	\$ 1.8	\$ 8.4	(79)%

The Company's Advanced Products Group includes the combined operations of Marlow, M Cubed, WBG and Worldwide Materials Group ("WMG").

The increase in bookings for the year ended June 30, 2013 compared to the same period last fiscal year was primarily due to the incremental bookings from the 2013 acquisition of M Cubed as well as a large initial production order at Marlow received in fiscal year 2013 specific to the personal comfort market, which more than offset declines in Marlow's gesture recognition orders which is nearing the end of its product life cycle. These increases in bookings were somewhat offset by declines at WBG as delays in government spending resulted in the postponed receipt of an annual government contract order that is now expected to be received in fiscal year 2014. In addition, WBG was impacted by the bankruptcy of a large customer which put further downward pressure on order patterns.

Revenues for the year ended June 30, 2013 for the Advanced Products Group increased 28% to \$95.8 million, compared to \$74.6 million for the same period last fiscal year. Excluding M Cubed revenues of \$30.3 million, revenues decreased \$9.1 million for the fiscal year ended June 30, 2013 when compared to the same period last fiscal year, primarily due to lower shipment volumes at Marlow related to telecommunication, automotive and gesture recognition products. In addition, WBG experienced lower shipments of semi-insulating SiC substrates used for radio frequency applications due to reduced customer demand in the wireless infrastructure market and defense sector.

Segment earnings for the year ended June 30, 2013 were \$1.8 million, compared to segment earnings of \$8.4 million for the same period last fiscal year. The unfavorable change in segment earnings for the year ended June 30, 2013 compared to the same period last fiscal year was primarily due to reduced revenues and gross margins at Marlow resulting from unfavorable product mix, as higher margin gesture recognition sales declined significantly. In addition, low operating margin at recently acquired M Cubed contributed to the lower earnings levels despite higher levels of segment revenues.

## Fiscal Year 2012 Compared to Fiscal Year 2011

### Results of Operations (millions except per-share data)

The following table sets forth bookings and select items from our Consolidated Statements of Earnings for the years ended June 30, 2012 and 2011.

	<u>Year Ended June 30, 2012</u>		<u>Year Ended June 30, 2011</u>	
Bookings	<u>\$534.9</u>		<u>\$520.2</u>	
		<u>% of Revenues</u>		<u>% of Revenues</u>
Total Revenues	<u>\$534.6</u>	<u>100.0%</u>	<u>\$502.8</u>	<u>100.0%</u>
Cost of goods sold	<u>341.9</u>	<u>64.0</u>	<u>295.9</u>	<u>58.9</u>
Gross margin	<u>192.7</u>	<u>36.0</u>	<u>206.9</u>	<u>41.1</u>
Operating Expenses:				
Internal research and development	21.4	4.0	16.1	3.2
Selling, general and administrative	99.4	18.6	92.0	18.3
Interest and other, net	<u>(7.0)</u>	<u>(1.3)</u>	<u>(3.0)</u>	<u>(0.6)</u>
Earnings before income tax	<u>78.9</u>	<u>14.8</u>	<u>101.8</u>	<u>20.2</u>
Income taxes	<u>17.6</u>	<u>3.3</u>	<u>18.7</u>	<u>3.7</u>
Net earnings	<u>61.3</u>	<u>11.5</u>	<u>83.0</u>	<u>16.5</u>
Net earnings attributable to noncontrolling interest	<u>1.0</u>	<u>0.2</u>	<u>0.3</u>	<u>0.1</u>
Net earnings attributable to II-VI Incorporated	<u>\$ 60.3</u>	<u>11.3</u>	<u>\$ 82.7</u>	<u>16.4</u>
Diluted earnings per-share	<u>\$ 0.94</u>		<u>\$ 1.30</u>	

The above results include MLA and Photop Aegis for the periods presented since their respective acquisition dates.

### Executive Summary

Net earnings attributable to II-VI for the year ended June 30, 2012 decreased to \$60.3 million (\$0.94 per-share diluted), compared to \$82.7 million (\$1.30 per-share diluted) for the fiscal year June 30, 2011. During the year ended June 30, 2012, the Company's results were affected by external events that were outside the operational control of the Company. Specifically, the Company's operating results were negatively impacted by an after-tax write-down of tellurium and selenium inventory of \$8.3 million (\$0.13 per-share diluted) at our PRM business unit. These write-downs were the result of declines in global index pricing of these minor metals driven by weak photovoltaic market demand for tellurium as well as lower demand for selenium used in Chinese metallurgical applications. In addition, the Company faced the challenge of investing time and resources in restoring Photop Aegis to full manufacturing capacity in the wake of the October 2011 flooding in Thailand that severely impacted Photop Aegis' manufacturing capacity. Although the external market and operational adversities had a negative impact on operating results, the Company increased fiscal 2012 bookings and revenues by 2.8% and 6.3%, respectively, when compared to fiscal year 2011. This higher revenue level did not yield more favorable operating results mostly due to the aforementioned external events. In addition, the Company increased its investment level of research and development activities during fiscal 2012 at Photop Aegis and Photop in an effort to expand and improve product offerings in the optical communications market for the ongoing transition of 40G and 100G applications. Furthermore, a shift in world-wide pre-tax income from lower taxing jurisdictions such as Vietnam and the Philippines to higher taxing jurisdictions such as the U.S. and Europe had resulted in an increase in the Company's year-to-date effective income tax rate.

## *Consolidated*

**Bookings.** Bookings for the year ended June 30, 2012 increased 2.8% to \$534.9 million, compared to \$520.2 million from the fiscal year ended June 30, 2011. The consistency in overall bookings levels was attributable to positive order trends in the Infrared Optics segment and Near-Infrared Optics segments, offset somewhat by bookings declines at Marlow within the Company's Advanced Products Group segment as well as PRM and VLOC within the Company's Military & Materials segment. The increased bookings at the Infrared Optics segment was pervasive across the majority of the segment's markets and was driven by higher world-wide laser utilization. Within the Near-Infrared Optics segment, the acquisition of Photop Aegis in July 2011 made a positive contribution to bookings. Within the Advanced Products Group segment, the Company's Marlow business unit continued to experience a shortfall of orders due to delays in government funding for military related programs and reductions in orders for its gesture recognition product line. At PRM, bookings trends were impacted negatively by the slowing demand in the photovoltaic market that resulted in a reduction of orders for tellurium.

**Revenues.** Revenues for the year ended June 30, 2012 increased 6.3% to \$534.6 million, compared to \$502.8 million from fiscal year June 30, 2011. The increase in revenues was attributable to the Infrared Optics and Military & Materials segments, somewhat offset by the lower volume of product shipments at the Company's Marlow business unit. The Infrared Optics segment benefited from increased shipment volumes to the U.S. aftermarket and Asian low-power markets, while demand in Europe for products manufactured by the segment's HIGHYAG business unit grew. The Military & Materials segment benefited from increased shipment volume and pricing of selenium at the Company's PRM business unit. These increased shipment volumes were somewhat offset by lower revenues at the Company's Marlow business unit as a result of lower demand for the gesture recognition product line combined with lower shipment volumes in the defense, medical and telecommunication markets.

**Gross margin.** Gross margin for the year ended June 30, 2012, was \$192.7 million, or 36.0% of total revenues, compared to \$206.9 million, or 41.1% of total revenues, from the June 30, 2011 fiscal year. A major contributor to the lower gross margin for the year ended June 30, 2012 was the inventory write-down of \$8.7 million and reduced gross margins on tellurium products sold at PRM caused by the decline in global tellurium index prices and declines in the price of selenium. In addition, the decline in gesture recognition shipment volume at the Company's Marlow business unit resulted in an unfavorable change in product mix which further compressed gross margin, while a shift in product mix at the Company's Photop business unit to products with lower margin profiles also contributed to lower gross margins. Gross margin at the Company's Photop Aegis business unit was unfavorably impacted due to an impairment charge of \$0.7 million for machinery, equipment and inventory that was damaged as a result of the Thailand flooding at its contract manufacturer. Furthermore, gross margin at the Infrared Optics business segment was compressed due to higher raw material input pricing of selenium and other materials.

**Internal research and development.** Company-funded internal research and development expenses for the year ended June 30, 2012 were \$21.4 million, or 4.0% of revenues, compared to \$16.1 million, or 3.2% of revenues, from fiscal year ended June 30, 2011. This increase in Company-funded internal research and development expenses was primarily the result of ongoing research and development investment at Photop and Photop Aegis within the Near-Infrared Optics segment. Photop was directing research and development efforts on optical communication and commercial optic markets, specifically optical switching router modules for data network customers as well as products for 40G and 100G optical networks. In conjunction with the addition of Photop Aegis in July 2011 the Company was investing in new product development for optical channel monitors and high-power fiber laser couplers and combiners.

**Selling, general and administrative.** Selling, general and administrative expenses for the year ended June 30, 2012 were \$99.4 million, or 18.6% of revenues, compared to \$92.0 million, or 18.3% of revenues for the fiscal year ended June 30, 2011. Selling, general and administrative expense as a percentage of revenues normalized and remained materially consistent in fiscal year 2012 compared to fiscal year 2011.

**Interest and other, net.** Interest and other, net for the year ended June 30, 2012 and 2011 was income of \$7.0 million and \$3.0 million, respectively. Included in interest and other, net for the year ended June 30, 2012 was a \$1.0 million gain related to the Company's sale of its equity investment in Langfang Haobo Diamond Co. Ltd., a \$1.4 million gain related to the sale of precious metals inventory, favorable foreign currency gains resulting from the weakening Euro, earnings from equity investments and interest income on excess cash reserves. Included in interest and other, net for the year ended June 30, 2011 was foreign currency gains as well as earnings from the Company's equity investments, unrealized gains on the deferred compensation plan and interest income on excess cash reserves.

**Income taxes.** The Company's year-to-date effective income tax rate at June 30, 2012 was 22.3%, compared to an effective tax rate of 18.4% from fiscal year 2011. The variation between the Company's effective tax rate and the U.S. statutory rate of 35.0% was primarily due to the Company's foreign operations which were subject to income taxes at lower statutory rates. The majority of the change in the Company's year-to-date effective tax rate from the prior fiscal year was the result of a shift in the mix of earnings from the Company's lower tax jurisdictions in the Philippines and Vietnam to its higher tax jurisdictions in the U.S. and Europe.

### ***Segment Reporting***

Bookings, revenues and segment earnings for the Company's reportable segments are discussed below. Segment earnings differ from income from operations in that segment earnings exclude certain operational expenses included in other expense (income) – net as reported. Management believes segment earnings to be a useful measure as it reflects the results of segment performance over which management has direct control and is used by management in its evaluation of segment performance. See "Note 12. Segment and Geographic Reporting," included in this Annual Report on Form 10-K for further information on the Company's reportable segments and for the reconciliation of segment earnings to net earnings, which is incorporated herein by reference.

#### ***Infrared Optics (millions)***

	<b>Year</b>		<b>%</b>
	<b>Ended June 30,</b>		
	<b><u>2012</u></b>	<b><u>2011</u></b>	<b><u>Increase</u></b>
<b>Bookings</b>	\$206.1	\$193.8	6%
<b>Revenues</b>	\$201.6	\$180.8	11%
<b>Segment earnings</b>	\$ 51.1	\$ 46.2	11%

The Company's Infrared Optics segment includes the combined operations of Infrared Optics and HIGHYAG.

Bookings for the year ended June, 30 2012 for Infrared Optics increased 6% to \$206.1 million, compared to \$193.8 million from fiscal year 2011. The increase in bookings was primarily driven by increased demand across the majority of markets and geographic locations of the segment. Increased order intake at the segment's HIGHYAG business unit for one-micron beam delivery welding and laser cutting components, strengthening activity in the North American low-power and high-power CO<sub>2</sub> laser markets, and an overall increase in world-wide laser utilization contributed to the increase in bookings.

Revenues for the year ended June 30, 2012 for Infrared Optics increased 11% to \$201.6 million, compared to \$180.8 million from the fiscal year 2011. The increase in revenues was primarily due to higher shipment volumes of laser optics used by aftermarket customers, while the segment's HIGHYAG business unit continued to experience increased revenues related to its one-micron beam remote welding heads as the product continued to gain traction in the automotive manufacturing industry.

Segment earnings for the year ended June 30, 2012 for Infrared Optics increased 11% to \$51.1 million, compared to \$46.2 million from fiscal year 2011. The increase in segment earnings was primarily due to the segment's higher revenue levels.

*Near-Infrared Optics (millions)*

	<b>Year Ended June 30,</b>		<b>% Increase (Decrease)</b>
	<b>2012</b>	<b>2011</b>	
<b>Bookings</b>	\$155.1	\$118.4	24%
<b>Revenues</b>	\$140.0	\$118.6	18%
<b>Segment earnings</b>	\$ 14.1	\$ 23.5	(40)%

The Company's Near-Infrared Optics segment includes the combined operations of Photop and Photop Aegis. The above results include Photop Aegis for the year ended June 30, 2012 only, as this acquisition was completed in July 2011.

Bookings for the year ended June 30, 2012 for Near-Infrared Optics increased 24% to \$155.1 million, compared to \$118.4 million from fiscal year 2011, primarily due to the inclusion of Photop Aegis. Excluding Photop Aegis, bookings for the Near-Infrared Optics segment increased 13% when compared to fiscal year 2011 mostly due to increased orders for optical communication component products in China.

Revenues for the year ended June 30, 2012 for Near-Infrared Optics increased 18% to \$140.0 million, compared to \$118.6 million from fiscal year 2011. Excluding Photop Aegis, revenues increased slightly by 4% due to the increased shipment volumes for optical communication products at Photop.

Segment earnings for the year ended June 30, 2012 for Near-Infrared Optics decreased 40% to \$14.1 million, compared to \$23.5 million from fiscal year 2011. The decrease in segment earnings was attributed to the addition of Photop Aegis, which incurred operating losses in fiscal 2012 as a result of the flooding in October 2011 at its contract manufacturer in Thailand, that constrained manufacturing capabilities and resulted in incremental costs necessary to re-establish capacity. This resulted in lost revenues as well as an impairment charge of \$0.7 million for damaged machinery, equipment and inventory. Photop experienced a decline in gross margin from unfavorable product mix as optical communication sales with higher margin product profiles eased somewhat during fiscal 2012. In addition, Photop and Photop Aegis continued to contribute resources to invest in internal research and development activities in high-speed products specific to the optical communication market.

*Military & Materials (millions)*

	<b>Year Ended June 30,</b>		<b>% (Decrease)</b>
	<b>2012</b>	<b>2011</b>	
<b>Bookings</b>	\$106.3	\$123.2	(14)%
<b>Revenues</b>	\$118.5	\$124.6	(5)%
<b>Segment earnings (loss)</b>	\$ (1.7)	\$ 15.8	(111)%

The Company's Military & Materials segment includes the combined operations of EEO, PRM, VLOC and MLA. Bookings for the year ended June 30, 2012 for Military & Materials decreased 14% to \$106.3 million, compared to \$123.2 million from the fiscal year 2011, primarily as a result of reduced bookings at VLOC and PRM offset by increased bookings at EEO and MLA. The decline in bookings at PRM was most prevalent during the latter half of fiscal 2012 and was the result of softening demand in the photovoltaic market, which lowered order intake volumes for tellurium products, while the decline at VLOC related to a decrease in orders for the UV filter product line. The increase in bookings within the segment was attributable to increased orders at EEO for its sapphire military business and other military contracts as well as a full year inclusion of MLA in fiscal 2012.

Revenues for the year ended June 30, 2012 for Military & Materials decreased 5% to \$118.5 million, compared to \$124.6 million from fiscal year 2011. At PRM, higher shipment volume and pricing of selenium for the majority of fiscal year 2012 was the major factor that contributed to increased revenue in fiscal year 2012. In

addition, a full year inclusion of MLA and increased shipment volumes related to military orders for the sapphire product line at EEO contributed to increased revenues. These increases were more than offset by shortfalls in shipment volumes at VLOC for military related product offerings.

Segment earnings (loss) for the year ended June 30, 2012 for Military & Materials was a segment loss of \$1.7 million, compared to segment earnings of \$15.8 million for fiscal year 2011. The decrease in segment earnings for the year ended June 30, 2012 was attributable to PRM as the global index price of tellurium declined through June 30, 2012. The weakening demand in the photovoltaic market, increased competition and excess capacity put significant downward pressure on the pricing of such material. In addition, PRM was impacted by falling prices of selenium during the last quarter of fiscal 2012 caused by weak demand in Chinese metallurgical applications. During the year ended June 30, 2012, PRM incurred losses as a result of inventory write-downs of tellurium and selenium of \$8.7 million as well as compressed gross margins from products sold that were previously purchased at higher raw material index prices.

***Advanced Products Group (millions)***

	<b>Year Ended June 30,</b>		<b>% (Decrease)</b>
	<b>2012</b>	<b>2011</b>	
<b>Bookings</b>	\$67.4	\$84.8	(20)%
<b>Revenues</b>	\$74.6	\$78.7	(5)%
<b>Segment earnings</b>	\$ 8.4	\$13.2	(36)%

The Company's Advanced Products Group includes the combined operations of Marlow, WBG and WMG.

Bookings for the year ended June 30, 2012 for the Advanced Products Group decreased 20% to \$67.4 million, compared to \$84.8 million from fiscal year 2011, and was attributable to both Marlow and WBG. At Marlow, contributing factors to the bookings decrease were the reduction in gesture recognition product demand as well as an overall softening in the majority of their product markets, such as telecommunications, defense, industrial and medical. At WBG, the timing of receipt of an annual blanket order negatively impacted fiscal 2012 bookings.

Revenues for the year ended June 30, 2012 for the Advanced Products Group decreased 5% to \$74.6 million, compared to \$78.7 million for fiscal year 2011. The decrease in revenues was primarily due to lower shipment volumes of the gesture recognition and telecommunication products at Marlow. The decline in gesture recognition shipment volumes was primarily attributed to weakening demand for this product line. Increased revenue at WBG resulting from higher shipment volumes of large diameter SiC substrates at the segment's WBG business unit helped offset a portion of the decreases in gesture recognition shipments at Marlow.

Segment earnings for the year ended June 30, 2012 decreased 36% to \$8.4 million, compared to \$13.2 million for prior fiscal year 2011. The decrease in segment earnings was primarily due to lower volume of segment revenues as well as a decline in gross margin at Marlow resulting from unfavorable product mix as sales with higher margin profiles specific to gesture recognition and telecommunications declined during fiscal 2012.



## LIQUIDITY AND CAPITAL RESOURCES

Historically, our primary sources of cash have been provided through operations and long-term borrowings. Other sources of cash include proceeds received from the exercise of stock options and sales of equity investments. Our historical uses of cash have been for capital expenditures, business acquisitions, payments of principal and interest on outstanding debt obligations and purchases of treasury stock. Supplemental information pertaining to our sources and uses of cash is presented as follows:

### *Sources (uses) of Cash (millions):*

	<b>Year Ended June 30,</b>		
	<b>2013</b>	<b>2012</b>	<b>2011</b>
<b>Net cash provided by operating activities</b>	\$ 107.6	\$ 88.1	\$ 73.5
<b>Proceeds received from contractual settlement from</b>			
<b>Thailand flooding</b>	4.8	—	—
<b>Proceeds from sale of equity method investment</b>	2.1	3.5	—
<b>Purchases of businesses, net of cash acquired</b>	(126.2)	(46.1)	(12.8)
<b>Additions to property, plant and equipment</b>	(25.3)	(42.8)	(40.9)
<b>Net proceeds (payments) on long-term borrowings</b>	102.0	(7.3)	15.0
<b>Proceeds from exercises of stock options</b>	4.1	2.7	6.2
<b>Purchases of treasury shares</b>	(20.0)	(5.0)	—
<b>Payments on cash earnout arrangement</b>	—	(6.0)	(6.0)
<b>Other</b>	1.4	(1.6)	6.4

### *Net cash provided by operating activities:*

Net cash provided by operating activities was \$107.6 million and \$88.1 million for the fiscal years ended June 30, 2013 and 2012, respectively. Cash flows from operating activities increased in spite of lower earnings levels due to a heightened focus on working capital management of inventory and accounts receivable. Furthermore, higher non-cash charges for depreciation, amortization, share-based compensation and unrealized foreign currency losses helped contribute to higher levels of cash flow from operations.

Net cash provided by operating activities was \$88.1 million and \$73.5 million for the fiscal years ended June 30, 2012 and 2011, respectively. Despite the lower earnings in fiscal 2012 when compared to fiscal 2011, cash flows from operating activities increased primarily due to an increased focus on working capital management as well as higher non-cash charges for depreciation, amortization and share-based compensation expense.

### *Net cash provided by (used in) investing activities:*

Net cash used in investing activities was \$144.5 million and \$84.9 million for the fiscal years ended June 30, 2013 and 2012, respectively. The majority of the increase in cash used in investing activities during fiscal 2013 was the result of the acquisitions of M Cubed, the thin film filter business and interleaver product line of Oclaro and LightWorks that were completed in fiscal year 2013. This increase in spending related to acquisition activity was somewhat offset by reduced levels of property, plant and equipment spending as well as proceeds received of \$4.8 million related to the contractual settlement from the Thailand flooding.

Net cash used in investing activities was \$84.9 million and \$52.5 million for the fiscal years ended June 30, 2012 and 2011, respectively. The majority of the increase in cash used in investing activities during fiscal 2012 was the result of the acquisition of Photop Aegis in July 2011.

*Net cash provided by (used in) financing activities:*

Net cash provided by financing activities was \$85.8 million for the year ended June 30, 2013 compared to net cash used in financing activities of \$14.8 million for the year ended June 30, 2012. The change in net cash flows from financing activities is primarily due to \$102 million of net borrowings on long-term debt used to finance the Company's three acquisitions in fiscal 2013, offset somewhat by \$20.0 million of cash used to repurchase Company stock under the Company's share repurchase program.

Net cash used in financing activities was \$14.8 million for the year ended June 30, 2012 compared to net cash provided by financing activities of \$19.2 million for the year ended June 30, 2011. The change in net cash flows from financing activities was primarily due to the Company's net payments of long-term debt in fiscal 2012 compared to net borrowing in fiscal 2011. In addition, the Company repurchased shares of its common stock for approximately \$5.0 million in fiscal 2012 under its share repurchase program.

In October 2012, the Company exercised the accordion feature of its \$50 million unsecured credit facility to increase the size of its credit facility from \$50 million to \$80 million. Except for the increase in size, the credit facility continued pursuant to its existing terms and conditions. The Company used a portion of its increased available credit facility to finance the acquisition of M Cubed. See "Note 2. Acquisitions" Included in this Annual Report on Form 10-K for further information on the Company's acquisitions, which is incorporated herein by reference.

In November 2012, the Company entered into a new credit agreement. The Company's new credit facility is a \$140 million unsecured line of credit, which under certain conditions may be expanded by an additional \$35 million. The revolving credit facility has an expiration date of November 2017 and, as defined in the agreement, has interest rates of LIBOR plus 0.75% to LIBOR plus 1.75% based on the Company's ratio of consolidated indebtedness to consolidated EBITDA; however until the date when the Company submits its compliance certificate for the period ending June 30, 2013, interest accrues at LIBOR plus 1.25%. The June 30, 2013 interest rate was 1.5% on the outstanding borrowings. Additionally, the facility is subject to certain covenants, including those relating to minimum interest coverage and maximum leverage ratios. As of June 30, 2013, the Company was in compliance with all covenants under its credit facility.

The Company's Yen denominated line of credit is a 500 million Yen facility that has a five-year term through June 2016 and has an interest rate equal to LIBOR, as defined in the loan agreement, plus 0.625% to 1.50%. Additionally, the facility is subject to certain covenants, including those relating to minimum interest coverage and maximum leverage ratios. As of June 30, 2013, the Company was in compliance with all covenants under its Yen denominated line of credit.

The Company had available \$29.8 million and \$42.3 million under its lines of credit as of June 30, 2013 and 2012, respectively. The amounts available under the Company's lines of credit are reduced by outstanding letters of credit. As of June 30, 2013 and 2012, total outstanding letters of credit supported by the credit facilities were \$1.3 million and \$0.9 million, respectively.

The weighted average interest rate of total borrowings for the years ended June 30, 2013 and 2012 was 1.4% and 1.0%, respectively. The weighted average of total borrowings for the years ended June 30, 2013 and 2012 was \$82.5 million and \$19.0 million, respectively.

Our cash position, borrowing capacity and debt obligations are as follows (in millions):

	<b>June 30, 2013</b>	<b>June 30, 2012</b>
<b>Cash and cash equivalents</b>	\$185.4	\$134.9
<b>Available borrowing capacity</b>	29.8	42.3
<b>Total debt obligation</b>	114.0	12.8

The Company believes cash flow from operations, existing cash reserves and available borrowing capacity will be sufficient to fund its working capital needs, capital expenditures and internal and external growth for fiscal 2014. The Company's cash and cash equivalent balances are generated and held in numerous locations throughout the world, including amounts held outside the U.S. As of June 30, 2013, the Company held approximately \$144.0 million of cash and cash equivalents outside of the U.S. Cash balances held outside the United States could be repatriated to the U.S., but, under current law, would potentially be subject to U.S. federal income taxes, less applicable foreign tax credits. The Company has not recorded deferred income taxes related to undistributed earnings outside of the U.S. as the earnings of the Company's foreign subsidiaries are indefinitely reinvested.

### Off-Balance Sheet Arrangements

The Company's off-balance sheet arrangements include the Operating Lease Obligations and the Purchase Obligations disclosed in the contractual obligations table below as well as letters of credit as discussed in Note 7 to the Company's Consolidated Financial Statements included in Item 8 of this Annual Report on Form 10-K, which information is incorporated herein by reference. The Company enters into these off-balance sheet arrangements to acquire goods and services used in its business.

### Tabular Disclosure of Contractual Obligations

<b>Contractual Obligations</b>	<b>Payments Due By Period</b>				
	<b>Total</b>	<b>Less Than 1 Year</b>	<b>1-3 Years</b>	<b>3-5 Years</b>	<b>More Than 5 Years</b>
<i>(\$000's)</i>					
Long-Term Debt Obligations	\$114,036	\$ —	\$ 3,036	\$111,000	\$ —
Interest Payments <sup>(1)</sup>	7,411	1,684	3,368	2,359	—
Capital Lease Obligations	—	—	—	—	—
Operating Lease Obligations <sup>(2)</sup>	49,248	9,793	13,745	5,602	20,108
Purchase Obligations <sup>(3)</sup>	8,692	8,084	591	17	—
Earnout Arrangement Obligation	3,300	3,300	—	—	—
Redeemable Noncontrolling Interest Obligation liability	8,568	8,568	—	—	—
Other Long-Term Liabilities Reflected on the Registrant's Balance Sheet	698	—	349	349	—
<b>Total</b>	<b>\$191,953</b>	<b>\$31,429</b>	<b>\$21,089</b>	<b>\$119,327</b>	<b>\$20,108</b>

<sup>(1)</sup> Variable rate interest obligations are based on the interest rate in place at June 30, 2013.

<sup>(2)</sup> Includes obligation for the use of two parcels of land related to PRM. The lease obligations extend through years 2039 and 2061.

<sup>(3)</sup> A purchase obligation is defined as an agreement to purchase goods or services that is enforceable and legally binding on the Company and that specifies all significant terms, including fixed or minimum quantities to be purchased; minimum or variable price provisions, and the approximate timing of the transaction. These amounts are primarily comprised of open purchase order commitments to vendors for the purchase of supplies and materials.

The gross unrecognized income tax benefits at June 30, 2013, which are excluded from the above table, were \$3.2 million. The Company is not able to reasonably estimate the amount by which the liability will increase or decrease over time; however, at this time, the Company does not expect a significant payment related to these obligations within the next fiscal year.

## **Item 7A. QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK**

### **MARKET RISKS**

The Company is exposed to market risks arising from adverse changes in foreign currency exchange rates, interest rates and commodity prices. There were no material changes in our market risk exposures in fiscal year 2013 as compared to fiscal year 2012. In the normal course of business, the Company uses certain techniques and a derivative financial instrument as part of its overall risk management strategy, primarily focused on its exposure to the Japanese Yen. No significant changes have occurred in the techniques and instruments used other than those described below.

The Company also has transactions denominated in Euros, British Pounds and Renminbi. Changes in the foreign currency exchange rates of the Company's various currencies did not have a material impact on the results of operations for fiscal year 2013.

#### *Foreign Exchange Risks*

In the normal course of business, the Company enters into foreign currency forward exchange contracts with its financial institutions. The purpose of these contracts is to hedge ordinary business risks regarding foreign currencies on product sales. Foreign currency exchange contracts are used to limit transactional exposure to changes in currency rates. The Company enters into foreign currency forward contracts that permit it to sell specified amounts of foreign currencies expected to be received from its export sales for pre-established U.S. dollar amounts at specified dates. The forward contracts are denominated in the same foreign currencies in which export sales are denominated. These contracts provide the Company with an economic hedge in which settlement will occur in future periods, thereby limiting the Company's exposure. These contracts had a total notional amount of \$4.7 million and \$6.4 million at June 30, 2013 and June 30, 2012, respectively. The Company continually monitors its positions and the credit ratings of the parties to these contracts. While the Company may be exposed to potential losses due to risk in the event of non-performance by the counterparties to these financial instruments, it does not currently anticipate such losses.

A 10% change in the Yen to U.S. dollar exchange rate would have changed revenues in the range from a decrease of approximately \$2.7 million to an increase of approximately \$3.3 million for the year ended June 30, 2013.

For II-VI Singapore Pte., Ltd. and its subsidiaries, II-VI Suisse S.a.r.l., PRM, and AOFR, the functional currency is the U.S. dollar. Gains and losses on the remeasurement of the local currency financial statements are included in net earnings and were immaterial for the years ended June 30, 2013, 2012 and 2011, respectively.

For all other foreign subsidiaries, the functional currency is the local currency. Assets and liabilities of those operations are translated into U.S. dollars using the period-end exchange rate, while income and expenses are translated using the average exchange rates for the reporting period. Translation adjustments are recorded as accumulated other comprehensive income within shareholders' equity.

#### *Interest Rate Risks*

As of June 30, 2013, the Company's total borrowings of \$114.0 million were from a line of credit borrowing of \$111.0 million denominated in U.S. dollars and a line of credit borrowing of \$3.0 million denominated in Japanese Yen. As such, the Company is exposed to changes in interest rates. A change in the interest rate of 100 basis points on these borrowings would have changed interest expense by \$0.8 million, or \$0.01 per-share diluted, for the fiscal year ended June 30, 2013.

### *Commodity Risk*

We are exposed to price risks for our tellurium and selenium raw materials. Also, some of our raw materials are sourced from a limited number of suppliers. As a result, we remain exposed to price changes in the raw materials used in such processes. A 10% decrease in the index price of tellurium and selenium would have caused an inventory write-down of approximately \$0.5 million, or \$0.01 per-share diluted, at June 30, 2013.

## **Item 8. FINANCIAL STATEMENTS AND SUPPLEMENTARY DATA**

### **MANAGEMENT'S REPORT ON INTERNAL CONTROL OVER FINANCIAL REPORTING**

#### **Management's Responsibility for Preparation of the Financial Statements**

Management is responsible for the preparation of the financial statements included in this Annual Report on Form 10-K. The financial statements were prepared in accordance with the accounting principles generally accepted in the United States of America and include amounts that are based on the best estimates and judgments of management. The other financial information contained in this annual report is consistent with the financial statements.

#### **Management's Report on Internal Control Over Financial Reporting**

Management is responsible for establishing and maintaining adequate internal control over financial reporting. The Company's internal control system is designed to provide reasonable assurance concerning the reliability of the financial data used in the preparation of the Company's financial statements, as well as reasonable assurance with respect to safeguarding the Company's assets from unauthorized use or disposition.

All internal control systems, no matter how well designed, have inherent limitations. Therefore, even those systems determined to be effective can provide only reasonable assurance with respect to financial statement presentation and other results of such systems.

Management conducted an evaluation of the effectiveness of the Company's internal control over financial reporting as of June 30, 2013. In making this evaluation, management used the criteria set forth by the *Committee of Sponsoring Organizations of the Treadway Commission (COSO) in Internal Control – Integrated Framework (1992)*. Management's evaluation included reviewing the documentation of its controls, evaluating the design effectiveness of controls and testing their operating effectiveness. Management excluded from the scope of its assessment of internal control over financial reporting the operations and related assets of M Cubed Technologies, Inc. which was acquired on November 1, 2012, the Thin Film Filter business and Interleaver product line of Oclaro, Inc. which was acquired on December 3, 2012 and LightWorks Optics, Inc. which was acquired on December 21, 2012. The recent acquisitions excluded from management's assessment of internal controls over financial reporting represented approximately 17.1% and 0.4% of total assets and net assets as of June 30, 2013 and approximately 9.4% and 4.5% of total revenues and net income for the fiscal year then ended. Based on the evaluation, management concluded that as of June 30, 2013, the Company's internal controls over financial reporting were effective and provide reasonable assurance that the accompanying financial statements do not contain any material misstatement.

Ernst & Young LLP, an independent registered public accounting firm, has issued their report on the effectiveness of our internal control over financial reporting as of June 30, 2013. Their report is included herein.

## **Report of Independent Registered Public Accounting Firm**

The Board of Directors and Shareholders of II-VI Incorporated and Subsidiaries

We have audited II-VI Incorporated and Subsidiaries' internal control over financial reporting as of June 30, 2013, based on criteria established in Internal Control – Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission (1992 framework) (the COSO criteria). II-VI Incorporated and Subsidiaries' management is responsible for maintaining effective internal control over financial reporting, and for its assessment of the effectiveness of internal control over financial reporting included in the accompanying Management's Report on Internal Control Over Financial Reporting. Our responsibility is to express an opinion on the company's internal control over financial reporting based on our audit.

We conducted our audit in accordance with the standards of the Public Company Accounting Oversight Board (United States). Those standards require that we plan and perform the audit to obtain reasonable assurance about whether effective internal control over financial reporting was maintained in all material respects. Our audit included obtaining an understanding of internal control over financial reporting, assessing the risk that a material weakness exists, testing and evaluating the design and operating effectiveness of internal control based on the assessed risk, and performing such other procedures as we considered necessary in the circumstances. We believe that our audit provides a reasonable basis for our opinion.

A company's internal control over financial reporting is a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles. A company's internal control over financial reporting includes those policies and procedures that (1) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the company; (2) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles, and that receipts and expenditures of the company are being made only in accordance with authorizations of management and directors of the company; and (3) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use, or disposition of the company's assets that could have a material effect on the financial statements.

Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

As indicated in the accompanying Management's Report on Internal Control over Financial Reporting, management's assessment of and conclusion on the effectiveness of internal control over financial reporting did not include the internal controls of M Cubed Technologies, Inc., the Thin Film Filter business and Interleaver product line of Oclaro, and LightWorks Optics, Inc., which are included in the 2013 consolidated financial statements of II-VI Incorporated and Subsidiaries and constituted 17.1% and 0.4% of total and net assets, respectively, as of June 30, 2013, and 9.4% and 4.5% of total revenues and net income, respectively, for the year then ended. Our audit of internal control over financial reporting of II-VI Incorporated and Subsidiaries also did not include an evaluation of the internal control over financial reporting of M Cubed Technologies, Inc., the Thin Film Filter business and Interleaver product line of Oclaro, and LightWorks Optics, Inc.

In our opinion, II-VI Incorporated and Subsidiaries maintained, in all material respects, effective internal control over financial reporting as of June 30, 2013, based on the COSO criteria.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States), the consolidated balance sheets of II-VI Incorporated and Subsidiaries as of June 30, 2013 and 2012, and the related consolidated statements of earnings, comprehensive income, shareholders' equity and cash flows for each of the three years in the period ended June 30, 2013 of II-VI Incorporated and Subsidiaries and our report dated August 28, 2013 expressed an unqualified opinion thereon.

/s/ Ernst & Young LLP

Pittsburgh, Pennsylvania  
August 28, 2013

## **Report of Independent Registered Public Accounting Firm**

The Board of Directors and Shareholders of II-VI Incorporated and Subsidiaries

We have audited the accompanying consolidated balance sheets of II-VI Incorporated and Subsidiaries as of June 30, 2013 and 2012, and the related consolidated statements of earnings, comprehensive income, shareholders' equity and cash flows for each of the three years in the period ended June 30, 2013. Our audits also included the financial statement schedule listed in the index at Item 15(a)(2). These financial statements and schedule are the responsibility of the Company's management. Our responsibility is to express an opinion on these financial statements and schedule based on our audits.

We conducted our audits in accordance with the standards of the Public Company Accounting Oversight Board (United States). Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for our opinion.

In our opinion, the financial statements referred to above present fairly, in all material respects, the consolidated financial position of II-VI Incorporated and Subsidiaries at June 30, 2013 and 2012, and the consolidated results of their operations and their cash flows for each of the three years in the period ended June 30, 2013, in conformity with U.S. generally accepted accounting principles. Also, in our opinion, the related financial statement schedule, when considered in relation to the basic financial statements taken as a whole, presents fairly in all material respects the information set forth therein.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States), II-VI Incorporated and Subsidiaries' internal control over financial reporting as of June 30, 2013, based on criteria established in Internal Control-Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission (1992 framework) and our report dated August 28, 2013 expressed an unqualified opinion thereon.

/s/ Ernst & Young LLP

Pittsburgh, Pennsylvania  
August 28, 2013



**II-VI Incorporated and Subsidiaries**  
**Consolidated Balance Sheets**

<b>June 30,</b>	<b>2013</b>	<b>2012</b>
<i>(\$000)</i>		
<b>Current Assets</b>		
Cash and cash equivalents	\$185,433	\$134,944
Accounts receivable – less allowance for doubtful accounts of \$1,479 and \$1,536, respectively	107,173	104,761
Inventories	141,859	137,607
Deferred income taxes	10,794	10,796
Prepaid and refundable income taxes	4,543	8,488
Prepaid and other current assets	11,342	13,777
<b>Total Current Assets</b>	<b>461,144</b>	<b>410,373</b>
Property, plant and equipment, net	170,672	153,918
Goodwill	123,352	80,748
Other intangible assets, net	86,701	44,014
Investment	11,203	10,661
Deferred income taxes	2,696	145
Other assets	8,034	6,627
<b>Total Assets</b>	<b>\$863,802</b>	<b>\$706,486</b>
<b>Current Liabilities</b>		
Accounts payable	\$ 23,617	\$ 29,420
Accrued compensation and benefits	28,315	27,234
Accrued income taxes payable	7,697	8,761
Deferred income taxes	110	209
Other accrued liabilities	34,695	18,104
<b>Total Current Liabilities</b>	<b>94,434</b>	<b>83,728</b>
Long-term debt	114,036	12,769
Deferred income taxes	4,095	5,883
Other liabilities	15,129	12,720
<b>Total Liabilities</b>	<b>227,694</b>	<b>115,100</b>
Redeemable noncontrolling interest	—	5,160
<b>Shareholders' Equity</b>		
Preferred stock, no par value; authorized – 5,000,000 shares; none issued	—	—
Common Stock, no par value; authorized – 300,000,000 shares; issued – 70,223,286 shares and 69,626,883 shares, respectively	194,284	176,295
Accumulated other comprehensive income	15,600	10,238
Retained earnings	482,878	434,940
	692,762	621,473
Treasury stock at cost, 8,011,733 shares and 6,793,928 shares, respectively	(56,654)	(35,247)
<b>Total Shareholders' Equity</b>	<b>636,108</b>	<b>586,226</b>
<b>Total Liabilities, Redeemable Noncontrolling Interest and Shareholders' Equity</b>	<b>\$863,802</b>	<b>\$706,486</b>

*See Notes to Consolidated Financial Statements.*

**II-VI Incorporated and Subsidiaries**  
**Consolidated Statements of Earnings**

<b>Year Ended June 30,</b>	<b>2013</b>	<b>2012</b>	<b>2011</b>
<i>(\$000 except per share data)</i>			
Revenues			
Domestic	\$241,045	\$214,822	\$204,136
International	317,351	319,808	298,665
<b>Total Revenues</b>	<b>558,396</b>	<b>534,630</b>	<b>502,801</b>
Costs, Expenses and Other Expense (Income)			
Cost of goods sold	360,830	341,889	295,902
Internal research and development	22,689	21,410	16,079
Selling, general and administrative	110,175	99,392	92,045
Interest expense	1,160	212	103
Other expense (income), net	(7,155)	(7,168)	(3,090)
<b>Total Costs, Expenses and Other Expense</b>	<b>487,699</b>	<b>455,735</b>	<b>401,039</b>
Earnings Before Income Taxes	70,697	78,895	101,762
Income taxes	18,766	17,620	18,744
Net Earnings	51,931	61,275	83,018
Less: Net Earnings Attributable to Redeemable Noncontrolling Interest	1,118	969	336
<b>Net Earnings Attributable to II-VI Incorporated</b>	<b>\$ 50,813</b>	<b>\$ 60,306</b>	<b>\$ 82,682</b>
Net Earnings Attributable to II-VI Incorporated: Basic Earnings Per Share:	\$ 0.81	\$ 0.96	\$ 1.33
Net Earnings Attributable to II-VI Incorporated: Diluted Earnings Per Share:	\$ 0.80	\$ 0.94	\$ 1.30

*See Notes to Consolidated Financial Statements.*

**II-VI Incorporated and Subsidiaries**  
**Consolidated Statements of Comprehensive Income**

<b>Year Ended June 30,</b>	<b>2013</b>	<b>2012</b>	<b>2011</b>
<i>(\$000)</i>			
Net earnings	\$51,931	\$61,275	\$83,018
Other comprehensive income (loss):			
Foreign currency translation adjustments	5,362	(2,878)	9,108
Comprehensive income	\$57,293	\$58,397	\$92,126
Net earnings attributable to redeemable noncontrolling interest	\$ 1,118	\$ 969	\$ 336
Other comprehensive income attributable to redeemable noncontrolling interest:			
Foreign currency translation adjustments attributable to redeemable noncontrolling interest	(295)	—	—
Comprehensive income attributable to redeemable noncontrolling interest	\$ 823	\$ 969	\$ 336
Comprehensive income attributable to II-VI Incorporated	\$56,470	\$57,428	\$91,790

*See Notes to Consolidated Financial Statements.*

**II-VI Incorporated and Subsidiaries**  
**Consolidated Statements of Shareholders' Equity**

	<u>Common Stock</u>		<u>Accumulated Other Comprehensive Income</u>	<u>Retained Earnings</u>	<u>Treasury Stock</u>		<u>Total</u>
	<u>Shares</u>	<u>Amount</u>			<u>Shares</u>	<u>Amount</u>	
<i>(000)</i>							
Balance – July 1, 2010	68,243	\$139,311	\$ 4,008	\$295,380	(6,484)	\$(28,649)	\$410,050
Shares issued under stock incentive plans	834	6,206	—	—	—	—	6,206
Net earnings	—	—	—	82,682	—	—	82,682
Treasury stock in deferred compensation plan	—	(356)	—	—	90	356	—
Foreign currency translation adjustment	—	—	9,108	—	—	—	9,108
Share-based compensation expense	—	9,972	—	—	—	—	9,972
Excess tax benefits from share-based compensation expense	—	4,053	—	—	—	—	4,053
Adjustment to redeemable noncontrolling interest	—	—	—	(798)	—	—	(798)
Balance – June 30, 2011	69,077	\$159,186	\$13,116	\$377,264	(6,394)	\$(28,293)	\$521,273
Shares issued under stock incentive plans	550	2,738	—	—	—	—	2,738
Net earnings	—	—	—	60,306	—	—	60,306
Purchases of treasury stock	—	—	—	—	(302)	(4,988)	(4,988)
Treasury stock in deferred compensation plan	—	1,966	—	—	(98)	(1,966)	—
Foreign currency translation adjustment	—	—	(2,878)	—	—	—	(2,878)
Share-based compensation expense	—	11,584	—	—	—	—	11,584
Excess tax benefits from share-based compensation expense	—	821	—	—	—	—	821
Adjustment to redeemable noncontrolling interest	—	—	—	(2,630)	—	—	(2,630)
Balance – June 30, 2012	69,627	\$176,295	\$10,238	\$434,940	(6,794)	\$(35,247)	\$586,226
Shares issued under stock incentive plans	596	4,104	—	—	—	—	4,104
Net earnings	—	—	—	50,813	—	—	50,813
Purchases of treasury stock	—	—	—	—	(1,141)	(19,978)	(19,978)
Treasury stock in deferred compensation plan	—	1,291	—	—	(70)	(1,291)	—
Minimum tax withholding requirements	—	—	—	—	(7)	(138)	(138)
Foreign currency translation adjustment	—	—	5,362	—	—	—	5,362
Share-based compensation expense	—	11,959	—	—	—	—	11,959
Excess tax benefits from share-based compensation expense	—	635	—	—	—	—	635
Adjustment to redeemable noncontrolling interest	—	—	—	(2,875)	—	—	(2,875)
Balance – June 30, 2013	70,223	\$194,284	\$15,600	\$482,878	(8,012)	\$(56,654)	\$636,108

*See Notes to Consolidated Financial Statements.*

**II-VI Incorporated and Subsidiaries**  
**Consolidated Statements of Cash Flows**

<b>Year Ended June 30,</b>	<b>2013</b>	<b>2012</b>	<b>2011</b>
<i>(\$000)</i>			
Cash Flows from Operating Activities			
Net earnings	\$ 51,931	\$ 61,275	\$ 83,018
Adjustments to reconcile net earnings to net cash provided by operating activities:			
Depreciation	34,272	30,242	25,669
Amortization	6,657	4,451	2,777
Share-based compensation expense	11,959	11,584	9,972
Loss (gain) on foreign currency transactions	1,244	(1,514)	(405)
Gain on sale of equity investment	—	(1,021)	(168)
Earnings from equity investments	(1,048)	(1,059)	(579)
Deferred income taxes	1,962	577	(2,068)
Impairment on property, plant and equipment	900	—	—
Excess tax benefits from share-based compensation expense	(635)	(821)	(4,053)
Increase (decrease) in cash from changes in:			
Accounts receivable	6,097	(8,931)	(7,197)
Inventories	5,273	(8,988)	(40,403)
Accounts payable	(9,549)	2,898	2,647
Income taxes payable	4,351	2,824	(2,722)
Other operating net assets	(5,807)	(3,448)	7,006
<b>Net cash provided by operating activities</b>	<b>107,607</b>	<b>88,069</b>	<b>73,494</b>
Cash Flows from Investing Activities			
Additions to property, plant and equipment	(25,273)	(42,840)	(40,859)
Purchase of businesses, net of cash acquired	(126,193)	(46,141)	(12,813)
Proceeds received from contractual settlement from Thailand flooding	4,797	—	—
Proceeds from sale of equity method investment	2,138	3,478	—
Investment in unconsolidated business	—	—	(1,180)
Proceeds from collection of notes receivable	—	—	2,000
Other investing activities	—	615	360
<b>Net cash used in investing activities</b>	<b>(144,531)</b>	<b>(84,888)</b>	<b>(52,492)</b>
Cash Flows from Financing Activities			
Proceeds on long-term borrowings	113,000	7,000	15,000
Payments on long-term borrowings	(11,000)	(14,295)	—
Purchases of treasury stock	(19,978)	(4,988)	—
Proceeds from exercises of stock options	4,104	2,658	6,206
Excess tax benefits from share-based compensation expense	635	821	4,053
Payments on cash earnout arrangement	—	(6,000)	(6,000)
Other financing activities	(982)	—	(105)
<b>Net cash provided by (used in) financing activities</b>	<b>85,779</b>	<b>(14,804)</b>	<b>19,154</b>
Effect of exchange rate changes on cash and cash equivalents	1,634	(2,893)	1,278
Net increase (decrease) in cash and cash equivalents	50,489	(14,516)	41,434
Cash and Cash Equivalents at Beginning of Period	134,944	149,460	108,026
<b>Cash and Cash Equivalents at End of Period</b>	<b>\$ 185,433</b>	<b>\$134,944</b>	<b>\$149,460</b>
Non-cash transactions:			
Purchase of business utilizing earnout consideration recorded in other current liabilities	\$ 3,300	\$ —	\$ —
Note receivable received from the sale of an equity investment	\$ —	\$ 2,022	\$ —

*See Notes to Consolidated Financial Statements.*

## **II-VI Incorporated and Subsidiaries**

### **Notes to the Consolidated Financial Statements**

#### **Note 1. Nature of Business and Summary of Significant Accounting Policies**

**Nature of Business.** II-VI Incorporated and its subsidiaries (the “Company,” “we,” “us,” or “our”), a worldwide leader in engineered materials and opto-electronic components, is a vertically-integrated manufacturing company that creates and markets products for a diversified customer base including industrial manufacturing, optical communications, military, high-power electronics, semiconductor and thermo-electronics applications. The Company markets its products through its direct sales force and through distributors and agents.

The Company uses certain uncommon materials and compounds to manufacture its products. Some of these materials are available from only one proven outside source. The continued high quality of these materials is critical to the stability of the Company’s manufacturing yields. The Company has not experienced significant production delays due to a shortage of materials. However, the Company does occasionally experience problems associated with vendor-supplied materials not meeting specifications for quality or purity. A significant failure of the Company’s suppliers to deliver sufficient quantities of necessary high-quality materials on a timely basis could have a material adverse effect on the Company’s results of operations.

**Principles of Consolidation.** The consolidated financial statements include the accounts of the Company. All intercompany transactions and balances have been eliminated. For subsidiaries in which the Company holds a controlling financial interest that is less than 100% of the subsidiary’s equity, the Company recognizes noncontrolling interests in such subsidiaries. For HIGHYAG the noncontrolling interest represents equity that is redeemable for cash at the option of the noncontrolling interest holder. Therefore, the noncontrolling interest is deemed to be temporary equity and is classified as redeemable noncontrolling interest in the mezzanine section of the June 30, 2012 Consolidated Balance Sheet.

**Foreign Currency Translation.** For II-VI Singapore Pte., Ltd. and its subsidiaries, II-VI Suisse S.a.r.l., Pacific Rare Specialty Metals & Chemicals, Inc. (“PRM”) and Photop AOFR Pty. Ltd. (“AOFR”) the functional currency is the United States (U.S.) dollar. The determination of the functional currency is made based on the appropriate economic and management indicators.

For all other foreign subsidiaries, the functional currency is the local currency. Assets and liabilities of those operations are translated into U.S. dollars using period-end exchange rates while income and expenses are translated using the average exchange rates for the reporting period. Translation adjustments are recorded as accumulated other comprehensive income within shareholders’ equity in the accompanying Consolidated Balance Sheets.

**Cash and Cash Equivalents.** The Company considers highly liquid investment instruments with an original maturity of three months or less to be cash equivalents. We place our cash and cash equivalents with high credit quality financial institutions and to date have not experienced credit losses in these instruments. Cash of foreign subsidiaries is on deposit at banks in China, Vietnam, Singapore, Japan, Switzerland, the Netherlands, Germany, the Philippines, Belgium, Italy, Hong Kong, Australia and the United Kingdom (“U.K.”).

**Accounts Receivable.** The Company establishes an allowance for doubtful accounts based on historical experience and believes the collection of revenues, net of this allowance, is reasonably assured.

The Company factored a portion of the accounts receivable of its Japan subsidiary during each of the years ended June 30, 2013 and 2012. Factoring is done with large banks in Japan. During the years ended June 30, 2013 and 2012, \$8.5 million and \$12.3 million, respectively, of accounts receivable had been factored. As of June 30, 2013 and 2012, the amount included in other accrued liabilities representing the Company’s obligation to the bank for these receivables factored with recourse was immaterial.

**Inventories.** Inventories are valued at the lower of cost or market (“LCM”), with cost determined on the first-in, first-out basis. Inventory costs include material, labor and manufacturing overhead. Market cannot exceed the net realizable value (i.e., estimated selling price in the ordinary course of business less reasonably predicted costs of completion and disposal) and market shall not be less than net realizable value reduced by an allowance for an approximately normal profit margin. In evaluating LCM, management also considers, if applicable, other factors as well, including known trends, market conditions, currency exchange rates and other such issues. The Company records an inventory reserve as a charge against earnings for all products on hand more than twelve to eighteen months depending on the products that have not been sold to customers or cannot be further manufactured for sale to alternative customers. An additional reserve is recorded for product on hand that is in excess of product sold to customers over the same periods noted above. Inventories are presented net of reserves. The reserves totaled \$7.1 million and \$6.1 million at June 30, 2013 and 2012, respectively.

**Property, Plant and Equipment.** Property, plant and equipment are carried at cost or fair market value upon acquisition. Major improvements are capitalized, while maintenance and repairs are generally expensed as incurred. The Company reviews its property, plant and equipment and other long-lived assets for impairment whenever events or circumstances indicate that the carrying amounts may not be recoverable. Depreciation for financial reporting purposes is computed primarily by the straight-line method over the estimated useful lives for building, building improvements and land improvements of 10 to 20 years and 3 to 12 years for machinery and equipment.

**Business Combinations.** The Company accounts for business acquisitions by establishing the acquisition-date fair value as the measurement for all assets acquired and liabilities assumed. Certain provisions of U.S. GAAP prescribe, among other things, the determination of acquisition-date fair value of consideration paid in a business combination (including contingent consideration) and the exclusion of transaction and acquisition-related restructuring costs from acquisition accounting.

**Goodwill.** The excess purchase price over the fair market value allocated to identifiable tangible and intangible net assets of businesses acquired is reported as goodwill in the accompanying Consolidated Balance Sheets. The Company tests goodwill for impairment at least annually as of April 1, or when events or changes in circumstances indicate that goodwill might be impaired. The evaluation of impairment involves comparing the current fair value of the Company’s reporting units to the recorded value (including goodwill). The Company uses a discounted cash flow (“DCF”) model and a market analysis to determine the current fair value of the its reporting units. A number of significant assumptions and estimates are involved in estimating the forecasted cash flows used in the DCF model, including markets and market shares, sales volume and pricing, costs to produce, working capital changes and income tax rates. Management considers historical experience and all available information at the time the fair values of the reporting units are estimated.

**Intangibles.** Intangible assets are initially recorded at their cost or fair market value upon acquisition. Finite-lived intangible assets are amortized for financial reporting purposes using the straight-line method over the estimated useful lives of the assets ranging from 7 to 18 years. Indefinite-lived intangible assets are not amortized but tested annually for impairment at April 1, or when events or changes in circumstances indicate that indefinite-lived intangible assets might be impaired.

**Equity Method Investments.** The Company has an equity investment in Guangdong Fuxin Electronic Technology (“Fuxin”) based in Guangdong Province, China of 20.2%, which is accounted for under the equity method of accounting. The total carrying value of the investment recorded at June 30, 2013 and June 30, 2012 was \$11.2 million and \$10.7 million, respectively. During the years ended June 30, 2013, 2012 and 2011, the Company’s pro-rata share of earnings from this investment was \$1.0 million, \$1.3 million and \$0.9 million, respectively, and was recorded in other expense (income), net in the Consolidated Statements of Earnings. During the years ended June 30, 2013 and 2012, the Company recorded dividends from this equity investment of \$0.5 million for each period.

In July 2009, the Company acquired a 40% non-controlling interest in Langfang Haobo Diamond Co. Ltd. (“Haobo”) to form a joint venture in Beijing, China for \$5.9 million. This investment was accounted for under the equity method of accounting. The Company’s pro-rata share of the losses from this investment was immaterial for the periods presented. In March 2012, the Company sold its 40% non-controlling interest in Haobo for \$5.6 million. The total consideration received was \$3.5 million in cash and a \$2.1 million non-interest bearing note receivable which was fully collected in fiscal year 2013. The sale of Haobo resulted in a gain of \$1.0 million which was recorded in other expense (income), net in the Consolidated Statements of Earnings in fiscal year 2012.

**Commitments and Contingencies.** Liabilities for loss contingencies arising from claims, assessments, litigation, fines, and penalties and other sources are recorded when it is probable that a liability has been incurred and the amount of the assessment and/or remediation can be reasonably estimated. Legal costs incurred in connection with loss contingencies are expensed as incurred. Such accruals are adjusted as further information develops or circumstances change. The Company had no loss contingency liabilities at June 30, 2013 related to commitments and contingencies.

**Accrued Bonus and Profit Sharing Contribution.** The Company records bonus and profit sharing estimates as a charge against earnings. These estimates are adjusted to actual based on final results of operations achieved during the fiscal year. Certain partial bonus amounts are paid on an interim basis, and the remainder is paid after the fiscal year end after the final determination of the applicable percentage or amounts. Other bonuses are paid annually.

**Warranty Reserve.** The Company records a warranty reserve as a charge against earnings based on a percentage of revenues utilizing actual returns over a period that approximates historical warranty experience. The following table summarizes the change in the carrying value of the Company’s warranty reserve as of and for the year ended June 30, 2013.

<u>Year Ended June 30,</u>	<u>2013</u>
<i>(\$000)</i>	
Balance – Beginning of Year	\$ 1,247
Settlements during the period	(1,437)
Additional warranty liability recorded	<u>1,851</u>
Balance – End of Year	<u>\$ 1,661</u>

**Income Taxes.** Deferred income tax assets and liabilities are determined based on the differences between the consolidated financial statement and tax basis of assets and liabilities using enacted tax rates in effect in the years in which the differences are expected to reverse. Valuation allowances are established when necessary to reduce deferred income tax assets to the amount more likely than not to be realized. The Company recognizes the tax benefit from an uncertain tax position only if it is more likely than not that the tax position will be sustained on examination by the taxing authorities, based on the technical merits of the position. The tax benefits recognized in the financial statements from such a position are measured based on the largest benefit that has a greater than 50 percent likelihood of being realized upon ultimate resolution. The amount of unrecognized tax benefits is adjusted for changes in facts and circumstances. For example, adjustments could result from significant amendments to existing tax law and the issuance of regulations or interpretations by the taxing authorities, new information obtained during a tax examination, or resolution of an examination. The Company believes that its estimates for uncertain tax positions are appropriate and sufficient to pay assessments that may result from examinations of its tax returns. The Company recognizes both accrued interest and penalties related to unrecognized tax benefits in income tax expense.

**Revenue Recognition.** The Company recognizes revenues for product shipments when persuasive evidence of a sales arrangement exists, the product has been shipped or delivered, the sale price is fixed or determinable and



collectability is reasonably assured. Title and risk of loss passes from the Company to its customer at the time of shipment in most cases with the exception of certain customers. For these customers, title does not pass and revenue is not recognized until the customer has received the product at its physical location.

We establish an allowance for doubtful accounts and warranty reserves based on historical experience and believe the collection of revenues, net of these reserves, is reasonably assured. Our allowance for doubtful accounts and warranty reserve balances at June 30, 2013 were approximately \$1.5 million and \$1.7 million, respectively. Our reserve estimates have historically been proven to be materially correct based upon actual charges incurred.

The Company's revenue recognition policy is consistently applied across the Company's segments, product lines and geographical locations. Further, we do not have post shipment obligations such as training or installation, customer acceptance provisions, credits and discounts, rebates and price protection, or other similar privileges. Our distributors and agents are not granted price protection. Our distributors and agents, which comprise less than 10% of consolidated revenues, have no additional product return rights beyond the right to return defective products covered by our warranty policy. Revenues generated from transactions other than product shipments are contract related and have historically accounted for less than 5% of consolidated revenues. We believe our revenue recognition practices have adequately considered the requirements under accounting principles generally accepted in the United States ("U.S. GAAP").

**Shipping and Handling Costs.** Shipping and handling costs billed to customers are included in revenues. Shipping and handling costs incurred by the Company are included in selling, general and administrative expenses in the accompanying Consolidated Statements of Earnings. Total shipping and handling revenue and costs included in revenues and in selling, general and administrative expenses were immaterial for the fiscal years ended June 30, 2013, 2012 and 2011, respectively.

**Research and Development.** Internal research and development costs and costs not related to customer and government funded research and development contracts are expensed as incurred.

**Share-Based Compensation.** The Company follows U.S. GAAP in accounting for share-based compensation arrangements, which requires the recognition of the fair value of stock compensation in net earnings. The Company recognizes the share-based compensation expense over the requisite service period of the individual grantees, which generally equals the vesting period.

The Company recorded \$12.7 million, \$11.6 million and \$10.0 million in share-based compensation expense in its Consolidated Statements of Earnings for the fiscal years ended June 30, 2013, 2012 and 2011, respectively. The allocation of share-based compensation expense is approximately 20% to cost of goods sold and 80% to selling, general and administrative expense in the Consolidated Statements of Earnings based upon the employee classification of the grantees. The Company utilized the Black-Scholes valuation model for estimating the fair value of stock option expense. During the fiscal years ended June 30, 2013, 2012 and 2011, the weighted-average fair value of options granted under the stock option plan was \$8.37, \$9.32 and \$8.45, respectively, per option using the following assumptions:

<b>Year Ended June 30,</b>	<b>2013</b>	<b>2012</b>	<b>2011</b>
Risk-free interest rate	0.98%	1.05%	1.96%
Expected volatility	49%	59%	47%
Expected life of options	5.66 years	5.47 years	6.61 years
Dividend yield	None	None	None

The risk-free interest rate is derived from the average U.S. Treasury Note rate during the period, which approximates the rate in effect at the time of grant related to the expected life of the options. The risk-free interest rate shown above is the weighted average rate for all options granted during the fiscal year. Expected volatility is based on the historical volatility of the Company's Common Stock over the period commensurate

with the expected life of the options. The expected life calculation is based on the observed time to post-vesting exercise and/or forfeitures of options by our employees. The dividend yield of zero is based on the fact that the Company has never paid cash dividends and has no current intention to pay cash dividends in the future. The estimated annualized forfeitures are based on the Company's historical experience of option pre-vesting cancellations and are estimated at a rate of 16%. The Company will record additional expense in future periods if the actual forfeiture rate is lower than estimated, and will adjust expense in future periods if the actual forfeitures are higher than estimated.

**Workers' Compensation.** The Company is self-insured for certain losses related to workers' compensation for the majority of its U.S. employees. When estimating the self-insurance liability, the Company considers a number of factors, including historical claims experience, demographic and severity factors and valuations provided by independent third-party consultants. Periodically, management reviews its assumptions and valuations to determine the adequacy of the self-insurance liability.

**Redeemable Noncontrolling Interest.** The noncontrolling interest associated with our majority-owned subsidiary, HIGHYAG Lasertechnologies, Inc. ("HIGHYAG"), represents equity that is redeemable for cash as a result of the put option held by the noncontrolling interest holder. As such, it is reported in the temporary equity section of our Consolidated Balance Sheets between total liabilities and shareholders' equity. Adjustments to the carrying value of the redeemable noncontrolling interest are based on the redemption amount at the balance sheet dates and are recorded to retained earnings in each reporting period. The redemption amount at each balance sheet date also includes amounts representing dividends payable under the redemption feature and for which the ultimate payment is not solely within the control of the Company. In calculating earnings per share in accordance with U.S. GAAP, the Company's accounting policy is to treat only the portion of the periodic adjustment of the redeemable noncontrolling interest's carrying value in excess of fair value like a dividend. For all periods presented, the adjusted carrying amount of the instrument (i.e. the redemption value) was not in excess of the fair value, and therefore, had no impact on the Company's earnings per share.

**Accumulated Other Comprehensive Income.** Accumulated other comprehensive income is a measure of all changes in shareholders' equity that result from transactions and other economic events in the period other than transactions with owners. Accumulated other comprehensive income is a component of shareholders' equity and consists of accumulated foreign currency translation adjustments of \$15.6 million and \$10.2 million, respectively, as of June 30, 2013 and 2012.

**Fair Value Measurements.** The Company applies fair value accounting for all financial assets and liabilities that are required to be recognized or disclosed at fair value in the financial statements. Fair value is defined as the price that would be received from selling an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date. When determining the fair value measurements for assets and liabilities, the Company considers the principal or most advantageous market in which the Company would transact, and the market-based risk measurements or assumptions that market participants would use in pricing the asset or liability, such as inherent risk, transfer restrictions and credit risk.

**Estimates.** The preparation of financial statements in conformity with U.S. GAAP requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the financial statements and the reported amounts of revenues and expenses during the reporting period. Actual results could differ from those estimates.

**Leases.** The Company classifies leases as operating in accordance with the provisions of lease accounting. Rent expense under noncancelable operating leases with scheduled rent increases or rent holidays is accounted for on a straight-line basis over the lease term, beginning on the date of initial possession or the effective date of the lease agreement. The amount of the excess of straight-line rent expense over scheduled payments is recorded as a deferred liability. The current portion of unamortized deferred lease costs is included in other accrued liabilities and the long-term portion is included in other liabilities in the Consolidated Balance Sheets.

**Reclassifications.** In the Consolidated Balance Sheet as of June 30, 2012, the Company corrected an immaterial error related to the presentation and amount of the redeemable noncontrolling interest for HIGHYAG by reflecting \$5.2 million as temporary equity (mezzanine) rather than permanent equity as previously reported. This amount reflects the redemption value of the redeemable put option that was available to the noncontrolling shareholder of HIGHYAG as of June 30, 2012. This immaterial change in classification and amount of the redeemable noncontrolling interest impacted the Company's retained earnings and total shareholders' equity for the fiscal years ended June 30, 2012, 2011 and 2010. These adjustments had no impact on previously reported revenues, income tax expense and net earnings in any annual or interim periods. In addition, the adjustment to retained earnings for the year ended June 30, 2010 represents the cumulative effect on the carrying value of the redeemable noncontrolling interest for the fiscal years ended June 30, 2008 through June 30, 2010. The following table represents the effect of the reclassification and correction to previously reported financial statement line items (\$000):

	<b>Year Ended June 30, 2012</b>	<b>Year Ended June 30, 2011</b>	<b>Year Ended June 30, 2010</b>
<b>Redeemable Noncontrolling Interest:</b>			
As Previously Reported	\$ 1,429	\$ 727	\$ 507
As Corrected	<u>5,160</u>	<u>1,828</u>	<u>810</u>
Increase/(Decrease)	<u>\$ 3,731</u>	<u>\$ 1,101</u>	<u>\$ 303</u>
<b>Retained Earnings:</b>			
As Previously Reported	\$438,671	\$378,365	\$295,683
As Corrected	<u>434,940</u>	<u>377,264</u>	<u>295,380</u>
Increase/(Decrease)	<u>\$ (3,731)</u>	<u>\$ (1,101)</u>	<u>\$ (303)</u>
<b>Total Shareholders' Equity:</b>			
As Previously Reported	\$591,386	\$523,101	\$410,860
As Corrected	<u>586,226</u>	<u>521,273</u>	<u>410,050</u>
Increase/(Decrease)	<u>\$ (5,160)</u>	<u>\$ (1,828)</u>	<u>\$ (810)</u>

#### **Recently Issued Financial Accounting Standards**

In March 2013, the Financial Accounting Standards Board ("FASB") issued an accounting standards update related to a parent's accounting for the cumulative translation adjustment upon de-recognition of certain subsidiaries or groups of assets within a foreign entity or of an investment in a foreign entity. The update clarifies the applicable guidance under current U.S. GAAP for the release of the cumulative translation adjustment upon a reporting entity's de-recognition of a subsidiary or group of assets within a foreign entity or part or all of its investment in a foreign entity. The update requires a reporting entity, which either sells a part or all of its investment in a foreign entity or ceases to have a controlling financial interest in a subsidiary or group of assets within a foreign entity, to release any related cumulative translation adjustment into net income. This update is effective prospectively for fiscal years beginning after December 15, 2013 and will be effective for the Company beginning in the first quarter of fiscal year 2015. The adoption of this standard is not expected to have a significant impact on the Company's consolidated financial statements.

In February 2013, the FASB issued an accounting standards update related to disclosure requirements of reclassifications out of accumulated other comprehensive income. The adoption of the guidance requires the Company to provide information about the amounts reclassified out of accumulated other comprehensive income by component. In addition, the Company is required to present, either on the face of the statement where net income is presented or in the notes, significant amounts reclassified from each component of accumulated other comprehensive income and the income statement line items affected by the reclassification. This update will be

effective for the Company beginning in the first quarter of fiscal year 2014 and is not expected to have a significant impact on the Company's consolidated financial statements.

In July 2012, the FASB issued an accounting standards update related to impairment testing of indefinite-lived intangible assets. The update simplifies the guidance of testing for potential impairment of indefinite-lived intangible assets other than goodwill. The amendment provides entities the option to first assess qualitative factors to determine whether it is necessary to perform the quantitative impairment test. An entity electing to perform a qualitative assessment is no longer required to calculate the fair value of an indefinite-lived intangible asset unless the organization determines, based on a qualitative assessment, that it is more likely than not (that is, a likelihood of more than 50 percent) that the asset is impaired. The amendments in this update are effective for annual and interim impairment tests performed for fiscal years beginning after September 15, 2012. Early adoption was permitted. The adoption of this standard did not have a significant impact on the Company's consolidated financial statements and indefinite-lived intangible asset impairment testing.

In September 2011, the FASB issued an accounting standards update related to goodwill impairment testing. The objective of the accounting standard update is to simplify how entities test goodwill for impairment by permitting an assessment of qualitative factors to determine whether it is more likely than not that the fair value of a reporting unit is less than its carrying amount as a basis for determining whether it is necessary to perform the two-step goodwill impairment test. This update also allows entities an unconditional option to bypass this qualitative assessment and proceed directly to performing the first step of the goodwill impairment test. An entity may resume performing the qualitative assessment in any subsequent period. This accounting standard update was effective for annual and interim goodwill impairment tests performed for fiscal years beginning on or after December 15, 2011, with early adoption permitted. The adoption of this standard did not have a significant impact on the Company's consolidated financial statements and goodwill impairment testing.

In June 2011, the FASB issued changes to the presentation of comprehensive income that require entities to present the total of comprehensive income, the components of net income, and the components of other comprehensive income either in a single continuous statement of comprehensive income or in two separate but consecutive statements. The option to present components of other comprehensive income as part of the statement of changes in stockholders' equity is no longer permitted. This guidance, with retrospective application, was adopted by the Company in the first quarter of fiscal year 2013. Other than the change in presentation, these changes have had no impact on the consolidated financial statements and the calculation and presentation of earnings per share.

**Note 2. Acquisitions*****M Cubed Technologies, Inc.***

In November 2012, the Company acquired all of the outstanding shares of M Cubed Technologies, Inc. (“M Cubed”), a privately-held company based in Connecticut with manufacturing locations in Monroe and Newtown, Connecticut, and Newark, Delaware. The total consideration consisted of cash of \$68.2 million, net of cash acquired of \$5.7 million. M Cubed develops advanced ceramic materials and precision motion control products addressing the semiconductor, display, industrial and defense markets. M Cubed is a business unit of the Company’s Advanced Products Group operating segment for financial reporting purposes. The following table presents the allocation of the purchase price of the assets acquired and liabilities assumed at the date of acquisition (\$000):

<b>Assets</b>	
Accounts receivable, net	\$ 7,424
Inventories	5,212
Prepaid and other assets	518
Deferred income taxes	6,366
Property, plant & equipment	16,536
Intangible assets	23,400
Goodwill	<u>12,380</u>
Total assets acquired	<u>\$71,836</u>
<b>Liabilities</b>	
Accounts payable	\$ 2,807
Other accrued liabilities	<u>864</u>
Total liabilities assumed	<u>\$ 3,671</u>
Net assets acquired	<u><u>\$68,165</u></u>

The goodwill of M Cubed of \$12.4 million is included in the Advanced Products Group segment and is attributed to the expected synergies and the assembled workforce of M Cubed. None of the goodwill is deductible for income tax purposes. The fair value of accounts receivable acquired was \$7.4 million with the gross contractual amount being \$7.5 million. At the time of acquisition, the Company expected \$0.1 million of accounts receivable to be uncollectible. The majority of the deferred tax assets of M Cubed are related to net operating loss carryforwards. The Company has considered any carryforward limitations and expirations and expects to fully utilize these carryforwards to offset future income taxes.

The amount of revenues of M Cubed included in the Company’s Consolidated Statements of Earnings for the year ended June 30, 2013 was \$30.3 million. The amount of earnings of M Cubed included in the Company’s Consolidated Statements of Earnings for the year ended June 30, 2013 was insignificant.

### ***Thin Film Filter Business and Interleaver Product Line***

In December 2012, the Company purchased the thin-film filter business and interleaver product line of Oclaro, Inc. (“Oclaro”) for \$27.4 million in cash. The Oclaro business and product line designs and manufactures thin film filter optical chips and products for optical communications, life sciences and industrial applications and operates within the Company’s Photop Technologies, Inc. (“Photop”) business unit as part of the Company’s Near-Infrared Optics operating segment for financial reporting purposes. The following table presents the allocation of the purchase price of the assets acquired at the date of acquisition (\$000):

<b>Assets</b>	
Inventories	\$ 1,085
Prepaid and other assets	129
Property, plant & equipment	6,273
Intangible assets	8,980
Goodwill	<u>10,980</u>
Total assets acquired	<u>\$27,447</u>

The goodwill of \$11.0 million is included in the Near-Infrared Optics segment and is attributed to the expected synergies and the assembled workforce of the business and is fully deductible for income tax purposes.

The amount of revenues and earnings of these businesses included in the Company’s Consolidated Statement of Earnings for the year ended June 30, 2013 was \$9.6 million and \$1.0 million, respectively.

### ***LightWorks Optics, Inc.***

In December 2012, the Company purchased all of the outstanding shares of LightWorks Optics, Inc. (“LightWorks”), a privately-held company based in Tustin, California with manufacturing locations in both Tustin and Vista, California. LightWorks manufactures precision optical systems and components, including visible, infrared and laser-based systems and sub-assemblies addressing the defense, aerospace, industrial and life science markets. LightWorks is a business unit of the Company’s Military & Materials operating segment for financial reporting purposes. Under the terms of the merger agreement, the consideration consisted of initial cash paid at the acquisition date of \$30.8 million and other closing adjustments of \$1.1 million, which were paid during fiscal year 2013. In addition, the agreement provided up to a maximum of \$4.2 million of additional cash earnout opportunities based upon LightWorks achieving certain agreed upon financial targets for revenues and customer orders in calendar year 2013, which if earned, would be payable in March 2014. As of June 30, 2013, the Company has recorded the fair value of the earnout arrangement of \$3.3 million. See “Note 13. Fair Value of Financial Instruments” for further detail in regard to the earnout arrangement and the measurement basis applied. The final purchase price was subject to customary closing adjustments, and was reduced by a \$1.3 million working capital adjustment. The purchase price is summarized as follows (\$000):

Cash paid at acquisition date	\$30,800
Cash paid for other closing adjustments	1,050
Cash received due to working capital adjustment	(1,282)
Fair value of cash earnout arrangement	<u>3,300</u>
Purchase price	<u>\$33,868</u>

The following table presents the allocation of the purchase price of the assets acquired and liabilities assumed at the date of acquisition (\$000):

<b>Assets</b>	
Accounts receivable, net	\$ 1,738
Inventories	3,785
Prepaid and other assets	191
Property, plant & equipment	3,079
Intangible assets	16,600
Goodwill	18,386
	<u>          </u>
Total assets acquired	<u>\$43,779</u>
<b>Liabilities</b>	
Accounts payable	\$ 724
Other accrued liabilities	9,187
	<u>          </u>
Total liabilities assumed	<u>\$ 9,911</u>
Net assets acquired	<u>\$33,868</u>

The goodwill of LightWorks of \$18.4 million is included in the Military & Materials segment and is attributed to the expected synergies and the assembled workforce of LightWorks. All goodwill acquired is deductible for income tax purposes. The gross contractual amount and fair value of accounts receivable acquired was \$1.7 million as the Company believes the entire amount to be fully collectible.

The amount of revenues and earnings of LightWorks included in the Company's Consolidated Statements of Earnings for the year ended June 30, 2013 was \$12.3 million and \$0.6 million, respectively.

In conjunction with the acquisitions of M Cubed, the Oclaro business and product line, and LightWorks, the Company expensed transaction costs of approximately \$1.3 million during the year ended June 30, 2013, which are recorded in selling, general and administrative expenses in the Consolidated Statements of Earnings.

### ***Pro Forma Information***

The following unaudited pro forma consolidated results of operations for fiscal year 2013 have been prepared as if the acquisitions of M Cubed, the Oclaro business and product line, and LightWorks had occurred on July 1, 2011, the beginning of the Company's fiscal year 2012, which is the fiscal year prior to acquisition (\$000 except per share data).

	<b>Year Ended June 30,</b>	
	<b>2013</b>	<b>2012</b>
Net revenues	\$596,961	\$618,204
Net earnings attributable to II-VI Incorporated	56,061	64,912
Basic earnings per share	0.90	1.03
Diluted earnings per share	0.88	1.01

The pro forma results are not necessarily indicative of what actually would have occurred if the transactions had occurred on July 1, 2011, are not intended to be a projection of future results and do not reflect any cost savings that might be achieved from the combined operations.

**Note 3. Redeemable noncontrolling interest**

In June 2013, the Company received notice from the noncontrolling interest holder of HIGHYAG of the intention to exercise the put option. The value of the put option was calculated using a formulaic model based upon earnings before interest, income taxes, depreciation and amortization (EBITDA), revenue growth and other variables. The price for the 25.07% noncontrolling interest the Company did not already own was \$7.6 million; in addition a dividend of \$1.0 million also was declared and is payable to the noncontrolling interest holder. Both of these amounts are included in the Consolidated Balance Sheet as of June 30, 2013 as a current liability within Other accrued liabilities as these amounts were paid in August 2013.

Changes in the carrying amount of our redeemable noncontrolling interest were as follows:

June 30,	2013	2012	2011
<i>(\$000)</i>			
Balance at Beginning of Year	\$ 5,160	\$ 1,828	\$ 810
Net earnings attributable to redeemable noncontrolling interest	1,118	969	336
Other changes	(585)	(267)	(116)
Redemption value adjustment to redeemable noncontrolling interest	2,875	2,630	798
Reclassification of redeemable noncontrolling interest to Other accrued liabilities	(8,568)	—	—
Balance at End of Year	\$ —	\$ 5,160	\$ 1,828

**Note 4. Inventories**

The components of inventories were as follows:

June 30,	2013	2012
<i>(\$000)</i>		
Raw materials	\$ 59,290	\$ 59,105
Work in process	43,895	39,292
Finished goods	38,674	39,210
	\$141,859	\$137,607

**Note 5. Property, Plant and Equipment**

Property, plant and equipment consists of the following:

June 30,	2013	2012
<i>(\$000)</i>		
Land and improvements	\$ 2,236	\$ 2,236
Buildings and improvements	87,189	78,149
Machinery and equipment	276,802	228,564
Construction in progress	10,831	17,614
	377,058	326,563
Less accumulated depreciation	(206,386)	(172,645)
	\$ 170,672	\$ 153,918

Depreciation expense was \$34.3 million, \$30.2 million and \$25.7 million for the fiscal years ended June 30, 2013, 2012 and 2011, respectively.



**Note 6. Goodwill and Other Intangible Assets**

Goodwill represents the excess of the cost over the net tangible and identifiable intangible assets of acquired businesses. Identifiable intangible assets acquired in business combinations are recorded based upon fair market value at the date of acquisition.

In connection with the three acquisitions completed in fiscal year 2013 and the acquisition completed in fiscal year 2012, the Company recorded the excess purchase prices over the net assets of the businesses acquired as goodwill in the accompanying Consolidated Balance Sheets, based on the purchase price allocation. Changes in the carrying amount of goodwill were as follows:

	Year Ended June 30, 2013				
	Infrared Optics	Near-Infrared Optics	Military & Materials	Advanced Products Group	Total
Balance – July 1, 2012	\$9,612	\$48,496	\$12,326	\$10,314	\$ 80,748
Goodwill acquired	—	10,980	18,386	12,380	41,746
Foreign currency translation	65	793	—	—	858
Balance – June 30, 2013	\$9,677	\$60,269	\$30,712	\$22,694	\$123,352

	Year Ended June 30, 2012				
	Infrared Optics	Near-Infrared Optics	Military & Materials	Advanced Products Group	Total
Balance – July 1, 2011	\$10,038	\$31,584	\$12,326	\$10,314	\$64,262
Goodwill acquired	—	16,193	—	—	16,193
Foreign currency translation	(426)	719	—	—	293
Balance – June 30, 2012	\$ 9,612	\$48,496	\$12,326	\$10,314	\$80,748

In accordance with U.S. GAAP, the Company tests for potential impairment of goodwill at least annually and any time business conditions indicate a potential change in recoverability. The evaluation of impairment involves comparing the current fair value of the Company's reporting units to the recorded value (including goodwill). The Company uses a DCF model and a market analysis to determine the current fair value of its reporting units. A number of significant assumptions and estimates are involved in estimating the forecasted cash flows used in the DCF model, including markets and market shares, sales volume and pricing, costs to produce, working capital changes and income tax rates. Management considers historical experience and all available information at the time the fair values of the reporting units are estimated. As of April 1 of fiscal years 2013 and 2012, the Company completed its annual impairment tests of its reporting units. Based on the results of these analyses, the Company's goodwill of \$123.4 million as of June 30, 2013 and \$80.7 million as of June 30, 2012 was not impaired.

The gross carrying amount and accumulated amortization of the Company's intangible assets other than goodwill as of June 30, 2013 and 2012 were as follows:

(\$000)	June 30, 2013			June 30, 2012		
	Gross Carrying Amount	Accumulated Amortization	Net Book Value	Gross Carrying Amount	Accumulated Amortization	Net Book Value
Patents	\$ 39,659	\$(10,455)	\$29,204	\$21,856	\$( 7,640)	\$14,216
Tradenames	17,855	(963)	16,892	13,166	(888)	12,278
Customer Lists	52,614	(12,189)	40,425	25,816	(8,296)	17,520
Other	1,580	(1,400)	180	1,375	(1,375)	—
Total	\$111,708	\$(25,007)	\$86,701	\$62,213	\$(18,199)	\$44,014

Amortization expense recorded on the intangible assets for the fiscal years ended June 30, 2013, 2012 and 2011 was \$6.7 million, \$4.5 million, and \$2.8 million, respectively. The patents are being amortized over a range of 60 to 240 months with a weighted-average remaining life of approximately 33 months. The customer lists are being amortized over 120 to 192 months with a weighted-average remaining life of approximately 33 months. As a result of the completion of the valuations of our recent acquisitions, the Company recorded approximately \$49.0 million of identifiable intangible assets in connection with the acquisitions of M Cubed, the Oclaro business and product line, and LightWorks. These identifiable intangible assets included customer lists, patents, trademarks and other of \$26.6 million, \$17.6 million, \$4.6 million and \$0.2 million, respectively.

In connection with past acquisitions, the Company acquired tradenames with indefinite lives. The carrying amount of these tradenames of \$16.4 million is not amortized but tested annually for impairment. The Company completed its impairment test of these tradenames with indefinite lives in the fourth quarter of fiscal years 2013 and 2012. Based on the results of these tests, the tradenames were not impaired at June 30, 2013 or 2012.

Included in the gross carrying amount and accumulated amortization of the Company's patents, customer list and other component of intangible assets and goodwill is the effect of the foreign currency translation of the portion relating to the Company's German subsidiaries, Photop and AOFR. The estimated amortization expense for existing intangible assets for each of the five succeeding years is as follows:

<b>Year Ending June 30,</b>	
<i>(\$000)</i>	
2014	\$7,896
2015	7,266
2016	7,199
2017	7,189
2018	6,714

#### **Note 7. Debt**

The components of debt were as follows (\$000):

<b>June 30,</b>	<b>2013</b>	<b>2012</b>
Line of credit, interest at LIBOR, as defined, plus 1.25% and 0.625%, respectively	\$111,000	\$ 9,000
Yen denominated line of credit, interest at LIBOR, as defined, plus 0.625%	3,036	3,769
Total debt	114,036	12,769
Current portion of long-term debt	—	—
Long-term debt, less current portion	\$114,036	\$12,769

In October 2012, the Company exercised the accordion feature of its \$50 million unsecured credit facility to increase the size of its credit facility from \$50.0 million to \$80.0 million. Except for the increase in size, the credit facility continued pursuant to its existing terms and conditions. The Company used a portion of its increased available credit facility to finance the acquisition of M Cubed. See "Note 2. Acquisitions"

In November 2012, the Company entered into a new credit agreement to replace its existing credit agreement. The Company's new credit facility is a \$140.0 million unsecured line of credit which under certain conditions may be expanded by an additional \$35.0 million. The revolving credit facility has an expiration date of November 2017 and, as defined in the agreement, has interest rates of LIBOR plus 0.75% to LIBOR plus 1.75% based on the Company's ratio of consolidated indebtedness to consolidated EBITDA; however, until the date when the Company submits its compliance certificate for the period ended June 30, 2013, interest accrues at LIBOR plus 1.25%. The June 30, 2013 interest rate was 1.5% on the outstanding borrowings. Additionally, the facility is subject to certain covenants, including those relating to minimum interest coverage and maximum leverage ratios. As of June 30, 2013, the Company was in compliance with all covenants under the credit facility.

The Company's Yen denominated line of credit is a 500 million Yen facility that has a five-year term through June 2016 and has an interest rate equal to LIBOR, as defined in the loan agreement, plus 0.625% to 1.50%. Additionally, the facility is subject to certain covenants, including those relating to minimum interest coverage and maximum leverage ratios. As of June 30, 2013, the Company was in compliance with all covenants under the Yen facility.

The Company had available \$29.8 million and \$42.3 million under its lines of credit as of June 30, 2013 and 2012, respectively. The amounts available under the Company's lines of credit are reduced by outstanding letters of credit. As of June 30, 2013 and 2012, total outstanding letters of credit supported by the credit facilities were \$1.3 million and \$0.9 million, respectively.

The weighted-average interest rate of total borrowings for the years ended June 30, 2013 and 2012 was 1.4% and 1.0%, respectively. The weighted-average of total borrowings for the fiscal years ended June 30, 2013 and 2012 was \$82.5 million and \$19.0 million, respectively.

The Company has a line of credit facility with a Singapore bank which permits maximum borrowings in the local currency of approximately \$0.4 million for the fiscal years ended June 30, 2013 and 2012. Borrowings are payable upon demand with interest charged at the rate of 1.00% above the bank's prevailing prime lending rate. The interest rate was 5.25% at June 30, 2013 and June 30, 2012. At June 30, 2013 and 2012, there were no outstanding borrowings under this facility.

There are no interim maturities or minimum payment requirements related to the credit facilities before their respective expiration dates. Interest and commitment fees paid during the fiscal year ended June 30, 2013 was \$1.1 million and was immaterial for fiscal years 2012 and 2011.

#### **Note 8. Income Taxes**

The components of income tax expense (benefit) were as follows:

<b>Year Ended June 30,</b>	<b>2013</b>	<b>2012</b>	<b>2011</b>
<i>(\$000)</i>			
Current:			
Federal	\$ 2,759	\$ 283	\$ 4,566
State	68	227	1,050
Foreign	13,977	16,533	15,196
<b>Total Current</b>	<b>\$16,804</b>	<b>\$17,043</b>	<b>\$20,812</b>
<i>(\$000)</i>			
Deferred:			
Federal	\$ 1,721	\$ 3,409	\$ 868
State	113	(356)	(357)
Foreign	128	(2,476)	(2,579)
<b>Total Deferred</b>	<b>\$ 1,962</b>	<b>\$ 577</b>	<b>\$(2,068)</b>
<b>Total Income Tax Expense</b>	<b>\$18,766</b>	<b>\$17,620</b>	<b>\$18,744</b>

Principal items comprising deferred income taxes were as follows:

<b>June 30,</b>	<b>2013</b>	<b>2012</b>
<i>(\$000)</i>		
<b>Deferred income tax assets</b>		
Inventory capitalization	\$ 6,333	\$ 6,328
Non-deductible accruals	1,930	1,755
Accrued employee benefits	6,790	6,364
Net-operating loss and credit carryforwards	22,849	10,079
Share-based compensation expense	15,021	11,534
Other	205	563
Valuation allowances	(2,885)	(846)
<b>Total deferred income tax assets</b>	<b>\$ 50,243</b>	<b>\$ 35,777</b>
<b>Deferred income tax liabilities</b>		
Tax over book accumulated depreciation	\$(16,988)	\$(14,166)
Intangible assets	(21,561)	(13,907)
Other	(2,409)	(2,855)
<b>Total deferred income tax liabilities</b>	<b>\$(40,958)</b>	<b>\$(30,928)</b>
<b>Net deferred income taxes</b>	<b>\$ 9,285</b>	<b>\$ 4,849</b>

The reconciliation of income tax expense at the statutory federal rate to the reported income tax expense is as follows:

<b>Year Ended June 30,</b>	<b>2013</b>	<b>%</b>	<b>2012</b>	<b>%</b>	<b>2011</b>	<b>%</b>
<i>(\$000)</i>						
Taxes at statutory rate	\$24,744	35	\$27,614	35	\$ 35,617	35
Increase (decrease) in taxes resulting from:						
State income taxes – net of federal benefit	168	—	(187)	—	312	—
Taxes on non U.S. earnings	(4,615)	(6)	(6,628)	(9)	(14,004)	(14)
Settlement of unrecognized tax benefits	—	—	(842)	(1)	—	—
Research and manufacturing incentive deductions	(1,458)	(2)	(2,079)	(3)	(2,515)	(2)
Other	(73)	—	(258)	—	(666)	(1)
	<b>\$18,766</b>	<b>27</b>	<b>\$17,620</b>	<b>22</b>	<b>\$ 18,744</b>	<b>18</b>

During the fiscal years ended June 30, 2013, 2012, and 2011, net cash paid by the Company for income taxes was \$11.9 million, \$13.2 million, and \$22.7 million, respectively.

Earnings before income taxes of our non-U.S. operations for June 30, 2013, 2012 and 2011 were \$51.4 million, \$62.9 million, and \$85.4 million, respectively. The Company has not recorded deferred income taxes applicable to undistributed earnings of foreign subsidiaries that are indefinitely reinvested outside the U.S. If the earnings of such foreign subsidiaries were not indefinitely reinvested, an additional deferred tax liability of approximately \$58 million and \$54 million would have been required as of June 30, 2013 and 2012, respectively. It is the Company's intention to permanently reinvest undistributed earnings of its foreign subsidiaries; therefore, no provision has been made for future income taxes on the undistributed earnings of foreign subsidiaries, as they are considered indefinitely reinvested.

The sources of differences resulting in deferred income tax expense (benefit) from continuing operations and the related tax effect of each were as follows:

<b>Year Ended June 30,</b>	<b>2013</b>	<b>2012</b>	<b>2011</b>
<i>(\$000)</i>			
Depreciation and amortization	\$(2,825)	\$ 38	\$ 2,754
Inventory capitalization	84	(1,947)	(2,661)
Net operating loss and credit carryforwards net of valuation allowances	4,786	1,859	509
Share-based compensation expense	(3,487)	(2,442)	(1,801)
Other	3,404	3,069	(869)
	<u>\$ 1,962</u>	<u>\$ 577</u>	<u>\$(2,068)</u>

The Company has the following gross operating loss carryforwards and tax credit carryforwards as of June 30, 2013:

<b>Type</b>	<b>Amount</b>	<b>Expiration Date</b>
<i>(\$000)</i>		
Tax credit carryforwards:		
Federal research and development credits	\$ 1,819	June 2019 – June 2032
State tax credits	2,347	June 2013 – June 2027
Operating loss carryforwards:		
Loss carryforwards – federal	\$47,091	June 2022 – June 2029
Loss carryforwards – state	26,818	June 2019 – June 2033
Loss carryforwards – foreign	16,687	June 2016 – June 2022

The Company has recorded a valuation allowance against the majority of the foreign loss carryforwards and select state tax credit carryforwards. The Company's federal loss carryforwards, federal research and development credit carryforwards, and certain state tax credits resulted from the Company's acquisitions of Photop Aegis and M Cubed and are subject to various annual limitations under Section 382 of the Internal Revenue Code.

Changes in the liability for unrecognized tax benefits for the fiscal years ended June 30, 2013, 2012 and 2011 were as follows:

	<b>2013</b>	<b>2012</b>	<b>2011</b>
<i>(\$000)</i>			
Balance at Beginning of Year	\$2,850	\$ 4,744	\$ 4,199
Increases in current year tax positions	338	738	1,716
Increases in prior year tax positions	—	—	—
Decreases in prior year tax positions	(7)	(41)	—
Settlements	—	(1,788)	—
Expiration of statute of limitations	—	(803)	(1,171)
Balance at End of Year	<u>\$3,181</u>	<u>\$ 2,850</u>	<u>\$ 4,744</u>

The Company classifies all estimated and actual interest and penalties as income tax expense. During the fiscal years ended June 30, 2013, 2012, and 2011, the Company recognized a \$0.1 million expense, a \$0.2 million benefit, and a \$0.1 million benefits, respectively, of interest and penalties within income tax expense. The Company had \$0.2 million, \$0.1 million, and \$0.2 million of interest and penalties accrued at June 30, 2013, 2012, and 2011, respectively. The Company has classified the uncertain tax positions as non-current income tax liabilities as the amounts are not expected to be paid within one year. Including tax positions for which the

Company determined that the tax position would not meet the more likely than not recognition threshold upon examination by the tax authorities based upon the technical merits of the position, the total estimated unrecognized tax benefit that, if recognized, would affect our effective tax rate was approximately \$3.2 million at June 30, 2013. The Company expects a decrease of \$0.8 million of unrecognized tax benefits during the next twelve months.

In December 2011, the Internal Revenue Service completed its examination of the Company's federal income tax return for fiscal year 2009 with no significant findings. As a result, during the fiscal year ended June 30, 2012, the Company reversed certain unrecognized tax benefits from fiscal year 2009 and recognized an income tax benefit of approximately \$0.8 million.

Fiscal years 2010 to 2013 remain open to examination by the Internal Revenue Service, fiscal years 2009 to 2013 remain open to examination by certain state jurisdictions, and fiscal years 2006 to 2013 remain open to examination by certain foreign taxing jurisdictions. The Company's fiscal years 2007 through 2011 German and 2010 Philippines income tax returns are currently under examination.

#### **Note 9. Earnings Per Share**

The following table sets forth the computation of earnings per share for the periods indicated. Weighted-average shares issuable upon the exercise of stock options that were not included in the calculation were 470,000, 220,000 and 109,000 for the fiscal years ended June 30, 2013, 2012 and 2011, respectively, because they were anti-dilutive.

<b>Year Ended June 30,</b>	<b>2013</b>	<b>2012</b>	<b>2011</b>
<i>(\$000 except per share)</i>			
Net earnings attributable to II-VI Incorporated	\$50,813	\$60,306	\$82,682
Divided by:			
Weighted average shares	62,411	62,823	62,211
Basic earnings attributable to II-VI Incorporated per common share	\$ 0.81	\$ 0.96	\$ 1.33
Net earnings attributable to II-VI Incorporated	\$50,813	\$60,306	\$82,682
Divided by:			
Weighted average shares	62,411	62,823	62,211
Dilutive effect of Common Stock equivalents	1,473	1,562	1,401
Diluted weighted average common shares	63,884	64,385	63,612
Diluted earnings attributable to II-VI Incorporated per common share	\$ 0.80	\$ 0.94	\$ 1.30

#### **Note 10. Operating Leases**

The Company leases certain property under operating leases that expire at various dates through the year ending July 2061. Future rental commitments applicable to the operating leases at June 30, 2013 are as follows:

<b>Year Ending June 30,</b>	
<i>(\$000)</i>	
2014	\$ 9,793
2015	8,232
2016	5,513
2017	3,465
2018	2,137
Thereafter	20,108

Rent expense was approximately \$9.8 million, \$7.6 million, and \$5.6 million for the fiscal years ended June 30, 2013, 2012 and 2011, respectively.

**Note 11. Shared-Based Compensation Plans**

The Company’s Board of Directors adopted the II-VI Incorporated 2012 Omnibus Incentive Plan (the “Plan”) which was approved by the shareholders at the Annual Meeting in November 2012. The Plan provides for the grant of non-qualified stock options, stock appreciation rights, restricted shares, restricted share units, deferred shares, performance shares and performance share units to employees, officers and directors of the Company. The maximum number of shares of the Company’s Common Stock authorized for issuance under the Plan shall not in the aggregate exceed 1,900,000 shares of Common Stock authorized, not including any remaining shares forfeited under the predecessor plan that may be rolled into the Plan. The Plan has vesting provisions predicated upon the death, retirement or disability of the grantee. As of June 30, 2013, there were 1,946,509 shares available to be issued under the Plan, including forfeited shares from predecessor plans.

The Company records share-based compensation expense for these awards in accordance with U.S. GAAP, which requires the recognition of the fair value of share-based compensation in net earnings. The Company recognizes the share-based compensation expense over the requisite service period of the individual grantees, which generally equals the vesting period. The Company accounts for cash-based stock appreciation rights, cash-based restricted share unit awards and cash-based performance share unit awards as liability awards, in accordance with applicable accounting standards. Share-based compensation expense for the fiscal years ended June 30, 2013, 2012 and 2011 is as follows (\$000):

	<u>Year Ended June 30, 2013</u>	<u>Year Ended June 30, 2012</u>	<u>Year Ended June 30, 2011</u>
Stock Options and Cash-Based Stock Appreciation Rights	\$ 5,046	\$ 6,025	\$ 5,586
Restricted Share Awards and Cash-Based Restricted Share Unit Awards	4,411	2,945	1,305
Performance Share Awards and Cash-Based Performance Share Unit Awards	<u>3,200</u>	<u>2,614</u>	<u>3,153</u>
	<u>\$12,657</u>	<u>\$11,584</u>	<u>\$10,044</u>

The share-based compensation expense is allocated approximately 20% to cost of goods sold and 80% to selling, general and administrative expense in the Consolidated Statements of Earnings, based on the employee classification of the grantees. Share-based compensation expense associated with liability awards was \$0.7 million in fiscal year 2013 and was not significant in fiscal years 2012 and 2011.

***Stock Options and Cash-Based Stock Appreciation Rights:***

The Company utilizes the Black-Scholes valuation model for estimating the fair value of stock options and cash-based stock appreciation rights. Generally, 20% of the options or rights may be exercised one year from the date of grant, with comparable annual increases on a cumulative basis each year thereafter. Stock option and cash-based stock appreciation rights activity during the fiscal year ended June 30, 2013 was as follows:

	Stock Options		Cash-Based Stock Appreciation Rights	
	Number of Shares	Weighted Average Exercise Price	Number of Rights	Weighted Average Exercise Price
Outstanding – July 1, 2012	4,532,418	\$14.77	—	\$ —
Granted	714,890	\$18.67	62,450	\$18.78
Exercised	(406,649)	\$10.10	—	\$ —
Forfeited and Expired	(170,648)	\$19.67	(1,630)	\$18.93
Outstanding – June 30, 2013	4,670,011	\$15.59	60,820	\$18.78
Exercisable – June 30, 2013	2,913,009	\$14.39	—	—

The weighted-average fair value of stock options and cash-based stock appreciation rights granted under the Company's stock option plans during the fiscal years ended June 30, 2013, 2012, and 2011 was \$8.37, \$9.32, and \$8.45 per share, respectively. As of June 30, 2013, 2012 and 2011, the aggregate intrinsic value of stock options outstanding and exercisable was \$9.7 million, \$14.6 million and \$7.4 million, respectively. Aggregate intrinsic value represents the total pretax intrinsic value (the difference between the Company's closing stock price on the last trading day of the year ended June 30, 2013, and the option's exercise price, multiplied by the number of in-the-money options) that would have been received by the option holders had all option holders exercised their options on June 30, 2013. This amount varies based on the fair market value of the Company's stock. The total intrinsic value of stock options exercised during the fiscal years ended June 30, 2013, 2012, and 2011 was \$2.9 million, \$4.5 million, and \$6.1 million, respectively. As of June 30, 2013, total unrecognized compensation cost related to non-vested stock options and cash-based stock appreciation rights was \$10.2 million. This cost is expected to be recognized over a weighted-average period of approximately three years. Outstanding and exercisable stock options at June 30, 2013 were as follows:

Range of Exercise Prices	Stock Options and Cash-Based Stock Appreciation Rights Outstanding			Stock Options and Cash-Based Stock Appreciation Rights Exercisable		
	Number of Shares or Rights	Weighted Average Remaining Contractual Term (Years)	Weighted Average Exercise Price	Number of Shares or Rights	Weighted Average Remaining Contractual Term (Years)	Weighted Average Exercise Price
\$5.60-\$8.44	294,470	1.03	\$ 7.93	294,470	1.03	\$ 7.93
\$8.80-\$13.23	1,463,779	4.37	\$10.99	1,187,819	3.97	\$10.75
\$13.89-\$21.62	2,325,382	7.39	\$17.28	935,918	5.78	\$16.19
\$22.52-27.18	647,200	5.31	\$23.63	494,802	5.09	\$23.55
	4,730,831	5.75	\$15.59	2,913,009	4.44	\$14.39

***Restricted Share Awards and Cash-Based Restricted Share Unit Awards:***

Restricted share awards and cash-based restricted share unit awards compensation expense was calculated based on the number of shares or units expected to be earned by the grantee multiplied by the stock price at the date of grant, and is being recognized over the vesting period. Generally, the restricted share awards and restricted share unit awards have a three year cliff-vesting provision and an estimated forfeiture rate of 7.5%.



Restricted share and cash-based restricted share unit activity during the fiscal year ended June 30, 2013, was as follows:

	Restricted Share Awards		Cash-Based Restricted Share Units	
	Number of Shares	Weighted Average Grant Date Fair Value	Number of Units	Weighted Average Grant Date Fair Value
Nonvested – June 30, 2012	525,359	\$17.69	—	\$ —
Granted	344,505	\$18.54	31,085	\$18.78
Vested	(37,165)	\$12.47	—	\$ —
Forfeited	(34,075)	\$20.46	(815)	\$18.93
Nonvested – June 30, 2013	798,624	\$18.18	30,270	\$18.78

As of June 30, 2013, total unrecognized compensation cost related to non-vested restricted share and cash-based restricted share unit awards was \$7.1 million. This cost is expected to be recognized over a weighted-average period of approximately two years. The restricted share compensation expense was calculated based on the number of shares expected to be earned multiplied by the stock price at the date of grant and is being recognized over the vesting period. The cash-based restricted share unit compensation expense was calculated based on the number of shares expected to be earned multiplied by the stock price at the period-end date and is being recognized over the vesting period. The total fair value of the restricted share and cash-based restricted share unit awards granted during the years ended June 30, 2013, 2012 and 2011, was \$7.0 million, \$5.5 million and \$4.2 million, respectively. The total fair value of restricted shares vested was \$0.7 million during fiscal year 2013 and was not significant during fiscal years 2012 and 2011.

***Performance Share Awards and Cash-Based Performance Share Unit Awards:***

The Compensation Committee of the Board of Directors of the Company granted certain executive officers and employees performance share awards and performance share unit awards under the Plan. As of June 30, 2013, the Company had outstanding grants covering performance periods ranging from 24 to 48 months. These awards are intended to provide continuing emphasis on specified financial performance goals that the Company considers important contributors to the creation of long-term shareholder value. These awards are payable only if the Company achieves specified levels of financial performance during the performance periods.

The performance share compensation expense was calculated based on the number of shares expected to be earned multiplied by the stock price at the date of grant, and is being recognized over the vesting period. The cash-based performance share unit compensation expense was calculated based on the number of shares expected to be earned multiplied by the stock price at the period-end date, and is being recognized over the vesting period. Performance share and cash-based performance share unit award activity relating to the plan during the year ended June 30, 2013, was as follows:

	Performance Share Awards		Cash-Based Performance Share Units	
	Number of Shares	Weighted Average Grant Date Fair Value	Number of Units	Weighted Average Grant Date Fair Value
Nonvested – June 30, 2012	322,669	\$17.66	—	\$ —
Granted	219,695	\$18.27	108,048	\$18.93
Vested	(152,584)	\$17.18	—	\$ —
Forfeited	(30,026)	\$22.29	(952)	\$18.93
Nonvested – June 30, 2013	359,754	\$17.85	107,096	\$18.93

As of June 30, 2013, total unrecognized compensation cost related to non-vested performance share and cash-based performance share unit awards was \$4.2 million. This cost is expected to be recognized over a weighted-average period of approximately three years. The total fair value of the performance share and cash-based

performance share unit awards granted during the fiscal years ended June 30, 2013, 2012 and 2011 was \$5.9 million, \$3.3 million and \$1.3 million, respectively. The total fair value of performance shares vested during the fiscal years ended June 30, 2013, 2012 and 2011 was \$2.6 million, \$1.6 million and \$2.8 million, respectively.

## **Note 12. Segment and Geographic Reporting**

The Company reports its business segments using the “management approach” model for segment reporting. The Company determines its reportable business segments based on the way the chief operating decision maker organizes business segments within the Company for making operating decisions and assessing performance.

Effective July 1, 2012, the Company’s VLOC Incorporated (“VLOC”) business unit has been included in the Military & Materials operating segment for financial reporting purposes in accordance with how the Company’s chief operating decision maker receives and reviews financial information. Prior to July 1, 2012, VLOC was included in the Near-Infrared Optics operating segment. The Company has revised the consolidated segment information for all periods presented in this Annual Report on Form 10-K to reflect this reclassification.

The Company has four reportable segments. The Company’s chief operating decision maker receives and reviews financial information in this format. The Company evaluates business segment performance based upon reported business segment earnings, which is defined as earnings before income taxes, interest and other income or expense. The segments are managed separately due to the production requirements and facilities unique to each segment. The Company has the following reportable segments at June 30, 2013: (i) Infrared Optics, which consists of the Company’s infrared optics and material products businesses, HIGHYAG and certain remaining corporate activities, primarily corporate assets and capital expenditures; (ii) Near-Infrared Optics, which consists of Photop, Photop Aegis and AOFR; (iii) Military & Materials, which consists of the Company’s LightWorks Optical Systems (formerly the Company’s EEO and LightWorks subsidiaries), VLOC, Max Levy Autograph (“MLA”) and PRM; and (iv) Advanced Products Group, which is comprised of the Company’s Marlow Industries, Inc. (“Marlow”), M Cubed, the Wide Bandgap Materials Group (“WBG”) and the Worldwide Materials Group (“WMG”); WMG is responsible for the corporate research and development activities.

The Infrared Optics segment is divided into geographic locations in the U.S., Singapore, China, Germany, Switzerland, Japan, Belgium, the U.K. and Italy. The Infrared Optics segment is directed by a general manager, while each geographic location is also directed by a general manager, and is further divided into production and administrative units that are directed by managers. The Infrared Optics segment designs, manufactures and markets optical and electro-optical components and materials sold under the II-VI brand name and used primarily in high-power CO<sub>2</sub> lasers. The Infrared Optics segment also manufactures fiber-delivered beam delivery systems and processing tools for industrial lasers sold under the HIGHYAG brand name.

The Near-Infrared Optics segment is located in the U.S., China, Vietnam, Australia, Germany, Japan, the U.K., Italy and Hong Kong. The Near-Infrared Optics segment is directed by the Corporate Executive Vice President and is further divided into production and administrative units that are directed by managers. The Near-Infrared Optics segment manufactures crystal materials, optics, microchip lasers and opto-electronic modules for use in optical communication networks and other diverse consumer and commercial applications sold under the Photop brand name, and manufactures tunable optical devices and couplers and combiners required for high speed optical networks sold under the Photop Aegis and AOFR brand names, respectively.

The Military & Materials segment is located in the U.S. and the Philippines. The Military & Materials segment is directed by the Corporate Vice President, while each geographic location is directed by a general manager. The Military & Materials segment is further divided into production and administrative units that are directed by managers. The Military & Materials segment designs, manufactures and markets ultra-violet to infrared optical components and high precision optical assemblies for military, medical and commercial laser and imaging applications under the LightWorks Optical Systems and VLOC brand names, manufactures and markets micro-

fine conductive mesh patterns for optical, mechanical, and ceramic components for applications under the MLA brand name. The segment also refines selenium metals for internal consumption and rare earth elements under the PRM brand name.

The Advanced Products Group is located in the U.S., Vietnam, Japan, China and Germany and is directed by a Corporate Executive Vice President. In the Advanced Products Group segment, Marlow designs and manufactures thermoelectric cooling and power generation solutions for use in defense and space, optical communications, medical, consumer and industrial markets. M Cubed develops advanced ceramic materials and precision motion control products addressing the semiconductor, display, industrial and defense markets. WBG manufactures and markets single crystal silicon carbide substrates for use in solid-state lighting, wireless infrastructure, RF electronics and power switching industries. WMG directs the corporate research and development initiatives. The accounting policies of the segments are the same as those of the Company. All of the Company's corporate expenses are allocated to the segments. The Company evaluates segment performance based upon reported segment earnings, which is defined as earnings before income taxes, interest and other income or expense. Inter-segment sales and transfers have been eliminated.

The following tables summarize selected financial information of the Company's operations by segment:

	Infrared Optics	Near-Infrared Optics	Military & Materials	Advanced Products Group	Eliminations	Total
<i>(\$000)</i>						
<b>2013</b>						
Revenues	\$203,319	\$154,852	\$104,437	\$ 95,788	\$ —	\$558,396
Inter-segment revenues	2,618	896	4,853	5,311	(13,678)	—
Segment earnings (loss)	49,457	19,628	(6,133)	1,750	—	64,702
Interest expense	—	—	—	—	—	(1,160)
Other income, net	—	—	—	—	—	7,155
Income taxes	—	—	—	—	—	(18,766)
Net earnings	—	—	—	—	—	51,931
Depreciation and amortization	8,423	17,286	7,160	8,060	—	40,929
Segment assets	238,700	307,431	139,923	177,748	—	863,802
Expenditures for property, plant and equipment	5,812	9,170	3,977	6,314	—	25,273
Equity investment	—	—	—	11,203	—	11,203
Goodwill	9,677	60,269	30,712	22,694	—	123,352

	Infrared Optics	Near-Infrared Optics	Military & Materials	Advanced Products Group	Eliminations	Total
<i>(\$000)</i>						
<b>2012</b>						
Revenues	\$201,611	\$140,001	\$118,462	\$ 74,556	\$ —	\$534,630
Inter-segment revenues	3,174	2,135	7,589	4,295	(17,193)	—
Segment earnings (loss)	51,095	14,060	(1,658)	8,442	—	71,939
Interest expense	—	—	—	—	—	(212)
Other income, net	—	—	—	—	—	7,168
Income taxes	—	—	—	—	—	(17,620)
Net earnings	—	—	—	—	—	61,275
Depreciation and amortization	8,480	15,803	6,127	4,283	—	34,693
Segment assets	220,550	268,619	112,485	104,832	—	706,486
Expenditures for property, plant and equipment	8,072	12,249	12,026	10,493	—	42,840
Equity investment	—	—	—	10,661	—	10,661
Goodwill	9,612	48,496	12,326	10,314	—	80,748

	Infrared Optics	Near- Infrared Optics	Military & Materials	Advanced Products Group	Eliminations	Total
<i>(\$000)</i>						
<b>2011</b>						
Revenues	\$180,827	\$118,614	\$124,615	\$78,745	\$ —	\$502,801
Inter-segment revenues	3,282	1,304	7,090	5,015	(16,691)	—
Segment earnings	46,187	23,523	15,845	13,220	—	98,775
Interest expense	—	—	—	—	—	(103)
Other income, net	—	—	—	—	—	3,090
Income taxes	—	—	—	—	—	(18,744)
Net earnings	—	—	—	—	—	83,018
Depreciation and amortization	8,268	11,319	5,470	3,389	—	28,446
Expenditures for property, plant and equipment	9,065	13,988	8,221	9,585	—	40,859

Geographic information for revenues from the country of origin, and long-lived assets from the country of origin, which include property, plant and equipment, goodwill and other intangibles, net of related depreciation and amortization, investments and other assets, is as follows:

<b>Year Ended June 30,</b>	<b>Revenues</b>		
	<b>2013</b>	<b>2012</b>	<b>2011</b>
<i>(\$000)</i>			
United States	\$251,735	\$204,706	\$193,344
Non-United States			
China	123,306	123,348	128,101
Germany	59,628	51,962	41,373
Japan	29,462	35,915	33,561
Vietnam	29,425	31,500	35,675
Philippines	24,721	44,412	34,799
Switzerland	10,268	11,714	10,699
Italy	7,593	7,214	7,421
United Kingdom	6,865	6,026	5,167
Singapore	6,280	7,238	7,542
Belgium	5,821	6,010	5,119
Australia	3,292	4,585	—
Total Non-United States	306,661	329,924	309,457
	\$558,396	\$534,630	\$502,801

<b>June 30,</b>	<b>Long-Lived Assets</b>	
	<b>2013</b>	<b>2012</b>
<i>(\$000)</i>		
United States	\$278,931	\$172,020
Non-United States		
China	92,257	90,543
Vietnam	10,149	10,278
Philippines	7,207	8,692
Germany	5,507	4,944
Netherlands	3,355	3,355
Singapore	2,270	3,212
Other	2,982	3,069
Total Non - United States	123,727	124,093
	\$402,658	\$296,113

**Note 13. Fair Value of Financial Instruments**

The FASB defines fair value as the exchange price that would be received for an asset or paid to transfer a liability (an exit price) in the principal or most advantageous markets for the asset and liability in an orderly transaction between market participants at the measurement date. The Company estimates fair value of its financial instruments utilizing an established three-level hierarchy in accordance with U.S. GAAP. The hierarchy is based upon the transparency of inputs to the valuation of an asset or liability as of the measurement date as follows:

- Level 1 – Valuation is based upon unadjusted quoted prices for identical assets or liabilities in active markets.
- Level 2 – Valuation is based upon quoted prices for similar assets and liabilities in active markets, or other inputs that are observable for the asset or liability, either directly or indirectly, for substantially the full term of the financial instruments.
- Level 3 – Valuation is based upon other unobservable inputs that are significant to the fair value measurements.

The classification of fair value measurements within the hierarchy is based upon the lowest level of input that is significant to the measurement. At June 30, 2013, the Company had foreign currency forward contracts recorded at fair value. The fair values of these instruments were measured using valuations based upon quoted prices for similar assets and liabilities in active markets (Level 2) and are valued by reference to similar financial instruments, adjusted for credit risk and restrictions and other terms specific to the contracts. At June 30, 2013, the Company had a contingent earnout arrangement related to the acquisition of LightWorks recorded at fair value. The LightWorks earnout arrangement provides up to a maximum of \$4.2 million of additional cash payments to the former shareholders based upon LightWorks achieving certain agreed upon financial targets for revenues and customer orders in calendar year 2013, which if earned, would be paid no later than March 2014. The fair value of the earnout arrangement was based on significant inputs not observable in the market and represents a Level 3 measurement as defined in ASC 820. The Company uses the income approach in measuring the fair value of the earnout arrangement, which assumed a probability of 100% and 55%, respectively, for the customer order and revenue portion of the earnout. The impact on fair value of discounting the earnout arrangement was not significant as the earnout period ends on December 31, 2013 and is expected to be paid in March 2014. There were no fair value remeasurements recorded on the earnout arrangement during fiscal year 2013. The following table provides a summary by level of the fair value of financial instruments that are measured on a recurring basis as of June 30, 2013 (\$000):

<b>Fair Value Measurements at June 30, 2013 Using:</b>				
	<b>June 30, 2013</b>	<b>Quoted Prices in Active Markets for Identical Assets (Level 1)</b>	<b>Significant Other Observable Inputs (Level 2)</b>	<b>Significant Unobservable Inputs (Level 3)</b>
<b>Liabilities:</b>				
Contingent Earnout Arrangement	\$3,300	\$—	\$ —	\$3,300
Foreign currency forward contracts	\$ 23	\$—	\$ 23	\$ —

<b>Fair Value Measurements at June 30, 2012 Using:</b>				
	<b>June 30, 2012</b>	<b>Quoted Prices in Active Markets for Identical Assets (Level 1)</b>	<b>Significant Other Observable Inputs (Level 2)</b>	<b>Significant Unobservable Inputs (Level 3)</b>
<b>Liabilities:</b>				
Foreign currency forward contracts	\$ 111	\$—	\$111	\$ —

The Company's policy is to report transfers into and out of Levels 1 and 2 of the fair value hierarchy at fair values as of the beginning of the period in which the transfers occur. There were no transfers in and out of Levels 1 and 2 of the fair value hierarchy during fiscal years 2013 and 2012.

The following table presents a reconciliation of the beginning and ending fair value measurements of the Company's Level 3 contingent earnout arrangement related to the acquisition of LightWorks:

	<u>Significant Unobservable Inputs (Level 3)</u>
Balance at June 30, 2012	\$ —
Earount arrangement	3,300
Changes in fair value	<u>—</u>
Balance at June 30, 2013	<u>\$3,300</u>

The carrying value of cash and cash equivalents, accounts receivable and accounts payable are considered Level 1 among the fair value hierarchy and approximate fair value because of the short-term maturity of those instruments. The Company's borrowings are considered Level 2 among the fair value hierarchy and are variable interest rates and accordingly their carrying amounts approximate fair value.

#### **Note 14. Derivative Instruments**

The Company, from time to time, purchases foreign currency forward exchange contracts, primarily in Japanese Yen, that permit it to sell specified amounts of these foreign currencies expected to be received from its export sales for pre-established U.S. dollar amounts at specified dates. These contracts are entered into to limit transactional exposure to changes in currency exchange rates of export sales transactions in which settlement will occur in future periods and which otherwise would expose the Company, on the basis of its aggregate net cash flows in respective currencies, to foreign currency risk.

The Company has recorded the fair market value of these contracts in the Company's financial statements. These contracts had a total notional amount of \$4.7 million and \$6.4 million at June 30, 2013 and June 30, 2012, respectively. As of June 30, 2013, these forward contracts had expiration dates ranging from August 2013 through October 2013, with Japanese Yen denominations individually ranging from 150 million Yen to 170 million Yen. The Company does not account for these contracts as hedges as defined by U.S. GAAP and records the change in the fair value of these contracts in Other expense (income), net in the Consolidated Statements of Earnings as they occur. The fair value measurement takes into consideration foreign currency rates and the current creditworthiness of the counterparties to these contracts, as applicable, and is based upon quoted prices for similar assets and liabilities in active markets, or other inputs that are observable for the asset or liability, either directly or indirectly, for substantially the full term of the financial instruments and thus represents a Level 2 measurement. These contracts are recorded in other accrued liabilities in the Company's Consolidated Balance Sheets. The change in the fair value of these contracts for the fiscal years ended June 30, 2013, 2012 and 2011 was insignificant.

#### **Note 15. Employee Benefit Plans**

Eligible U.S. employees of the Company participate in a profit sharing retirement plan. Contributions accrued for the plan are made at the discretion of the Company's board of directors and were \$2.2 million, \$2.8 million, and \$4.3 million for the years ended June 30, 2013, 2012 and 2011, respectively.

The Company has an employee stock purchase plan available for employees who have completed six months of continuous employment with the Company. The employee may purchase the Company's Common Stock at 5% below the prevailing market price. The amount of shares which may be bought by an employee during each fiscal

year is limited to 10% of the employee's base pay. This plan, as amended, limits the number of shares of Common Stock available for purchase to 1,600,000 shares. There were 564,034 and 590,889 shares of Common Stock available for purchase under the plan at June 30, 2013 and 2012, respectively.

As a requirement of a collective bargaining agreement, PRM maintains a defined benefit plan for substantially all of its employees. The plan provides for retirement benefits based on a certain percentage of the latest monthly salary of an employee per year of service. The pension liability was \$1.1 million as of both June 30, 2013 and June 30, 2012.

The Company has no program for post-retirement health and welfare benefits.

The II-VI Incorporated Deferred Compensation Plan (the "Compensation Plan") is designed to allow officers and key employees of the Company to defer receipt of compensation into a trust fund for retirement purposes. Under the Compensation Plan, eligible participants can elect to defer up to 100% of discretionary incentive compensation, performance share awards and restricted share awards into the Compensation Plan. The Compensation Plan is a nonqualified, defined contribution employees' retirement plan. At the Company's discretion, the Compensation Plan may be funded by the Company making contributions based on compensation deferrals, matching contributions and discretionary contributions. Compensation deferrals will be based on an election by the participant to defer a percentage of compensation under the Compensation Plan. All assets in the Compensation Plan are subject to claims of the Company's creditors until such amounts are paid to the Compensation Plan participants. Employees of the Company made contributions to the Compensation Plan in the amounts of approximately \$1.8 million, \$1.4 million, and \$2.9 million for the fiscal years ended June 30, 2013, 2012, and 2011, respectively. There were no employer contributions made to the Compensation Plan for the fiscal years ended June 30, 2013, 2012 and 2011.

**Note 16. Other Accrued Liabilities**

The components of other accrued liabilities were as follows:

<b>June 30,</b>	<b>2013</b>	<b>2012</b>
<i>(\$000)</i>		
Redeemable noncontrolling interest liability	\$ 8,568	\$ —
Earnout arrangement	3,300	—
Warranty reserve	1,661	1,247
Other accrued liabilities	21,166	16,857
	<u>\$34,695</u>	<u>\$18,104</u>

**Note 17. Commitments and Contingencies**

The Company has purchase commitments for materials and supplies as part of the ordinary conduct of business. A portion of the commitments are long-term and are based on minimum purchase requirements. Certain short-term raw material purchase commitments have a variable price component which is based on market pricing at the time of purchase. Due to the proprietary nature of some of the Company's materials and processes, certain contracts may contain penalty provisions for early termination. The Company does not believe that a significant amount of penalties is reasonably likely to be incurred under these commitments based upon historical experience and current expectation. In addition, the Company has commitments expected to be paid in fiscal year 2014 relating to its redeemable noncontrolling interest of \$8.6 million and its earnout contingency of \$3.3 million associated with the acquisition of LightWorks. Total future commitments are as follows:

<b>Year Ending June 30,</b>	
<i>(\$000)</i>	
2014	\$19,956
2015	296
2016	296
2017	17
2018	—

**Note 18. Share Repurchase Program**

In May 2012, the Board of Directors authorized the Company to purchase up to \$25 million of its Common Stock. The repurchase program called for shares to be purchased in the open market or in private transactions from time to time. Shares purchased by the Company are retained as treasury stock and available for general corporate purposes. During the fiscal years ended June 30, 2013 and 2012, the Company purchased 1,141,022 shares and 301,716 shares of its Common Stock for \$20.0 million and \$5.0 million, respectively, under the repurchase program. There were no outstanding share repurchase programs at June 30, 2013.



## Quarterly Financial Data (unaudited)

### Fiscal 2013

Quarter Ended	September 30, 2012	December 31, 2012	March 31, 2013	June 30, 2013
<i>(\$000 except per share data)</i>				
Net revenues	\$132,292	\$125,889	\$145,170	\$155,045
Cost of goods sold	83,457	79,019	94,169	104,185
Internal research and development	5,585	5,626	5,781	5,697
Selling, general and administrative	26,656	26,309	27,217	29,993
Interest expense	36	223	449	452
Other expense (income) – net	(761)	(4,551)	(1,401)	(442)
Earnings from continuing operations before income taxes	17,319	19,263	18,955	15,160
Income taxes	4,187	6,796	2,861	4,922
Net Earnings	\$ 13,132	\$ 12,467	\$ 16,094	\$ 10,238
Net Earnings Attributable to Noncontrolling Interest	\$ 414	\$ 267	\$ 225	\$ 212
Net Earnings Attributable to II-VI Incorporated	\$ 12,718	\$ 12,200	\$ 15,869	\$ 10,026
Net Earnings Attributable to II-VI Incorporated: Basic earnings per share:	\$ 0.20	\$ 0.19	\$ 0.26	\$ 0.16
Net Earnings Attributable to II-VI Incorporated: Diluted earnings per share:	\$ 0.20	\$ 0.19	\$ 0.25	\$ 0.16

## Fiscal 2012

Quarter Ended	September 30, 2011	December 31, 2011	March 31, 2012	June 30, 2012
<i>(\$000 except per share data)</i>				
Net revenues	\$138,373	\$126,757	\$132,590	\$136,910
Cost of goods sold	83,363	83,289	86,589	88,648
Internal research and development	5,163	5,016	5,698	5,533
Selling, general and administrative	26,812	24,214	23,329	25,037
Interest expense	59	77	48	28
Other expense (income) – net	(1,630)	(1,506)	(2,311)	(1,721)
Earnings from continuing operations before income taxes	24,606	15,667	19,237	19,385
Income taxes	5,892	2,147	4,967	4,614
Net Earnings	\$ 18,714	\$ 13,520	\$ 14,270	\$ 14,771
Net Earnings Attributable to Noncontrolling Interest	\$ 135	\$ 233	\$ 276	\$ 325
Net Earnings Attributable to II-VI Incorporated	\$ 18,579	\$ 13,287	\$ 13,994	\$ 14,446
Net Earnings Attributable to II-VI Incorporated: Basic earnings per share:	\$ 0.30	\$ 0.21	\$ 0.22	\$ 0.23
Net Earnings Attributable to II-VI Incorporated: Diluted earnings per share:	\$ 0.29	\$ 0.21	\$ 0.22	\$ 0.22

## SCHEDULE II

### II-VI INCORPORATED AND SUBSIDIARIES

#### VALUATION AND QUALIFYING ACCOUNTS YEARS ENDED JUNE 30, 2013, 2012, AND 2011 (IN THOUSANDS OF DOLLARS)

	<u>Balance at Beginning of Year</u>	<u>Additions</u>		<u>Deduction from Reserves</u>	<u>Balance at End of Year</u>
		<u>Charged to Expense</u>	<u>Charged to Other Accounts</u>		
YEAR ENDED JUNE 30, 2013:					
Allowance for doubtful accounts	\$1,536	\$ (92)	\$179 <sup>(2)</sup>	\$ (144) <sup>(1)</sup>	\$1,479
Warranty reserves	\$1,247	\$1,851	\$ —	\$(1,437)	\$1,661
YEAR ENDED JUNE 30, 2012:					
Allowance for doubtful accounts	\$ 766	\$ 940	\$(18)	\$ (152) <sup>(1)</sup>	\$1,536
Warranty reserves	\$1,187	\$1,710	\$ —	\$(1,650)	\$1,247
YEAR ENDED JUNE 30, 2011:					
Allowance for doubtful accounts	\$1,081	\$ (38)	\$(17)	\$ (260) <sup>(1)</sup>	\$ 766
Warranty reserves	\$1,037	\$1,707	\$ —	\$(1,557)	\$1,187

<sup>(1)</sup> Primarily relates to write-offs of accounts receivable.

<sup>(2)</sup> Primarily relates to allowance for doubtful accounts from the acquisition of M Cubed.

**Item 9. CHANGES IN AND DISAGREEMENTS WITH ACCOUNTANTS ON ACCOUNTING AND FINANCIAL DISCLOSURE**

None.

**Item 9A. CONTROLS AND PROCEDURES**

**Evaluation of Disclosure Controls and Procedures**

The Company's management evaluated, with the participation of Francis J. Kramer, the Company's President and Chief Executive Officer and Craig A. Creaturo, the Company's Chief Financial Officer and Treasurer, the effectiveness of the Company's disclosure controls and procedures (as defined in Rules 13a-15(e) and 15d-15(e) of the Securities Exchange Act of 1934, as amended) as of the end of the period covered by this Annual Report on Form 10-K. The Company's disclosure controls were designed to provide reasonable assurance that information required to be disclosed in reports that we file or submit under the Securities Exchange Act of 1934 is recorded, processed, summarized and reported within the time periods specified in the rules and forms of the Securities and Exchange Commission. It should be noted that the design of any system of controls is based in part upon certain assumptions about the likelihood of future events, and there can be no assurance that any design will succeed in achieving its stated goals under all potential future conditions, regardless of how remote. However, the controls have been designed to provide reasonable assurance of achieving the controls' stated goals. Based on that evaluation, Messrs. Kramer and Creaturo concluded that, as of June 30, 2013, the Company's disclosure controls and procedures are effective at the reasonable assurance level.

**Management's Report on Internal Control Over Financial Reporting**

Our management is responsible for establishing and maintaining adequate internal control over financial reporting, as such term is defined in Rule 13a-15(f) and 15d-15(f) under the Securities Exchange Act of 1934. Under the supervision and with the participation of our management, including our Chief Executive Officer and Chief Financial Officer, we conducted an evaluation of the effectiveness of our internal control over financial reporting based on the "Internal Control-Integrated Framework" issued by the Committee of Sponsoring Organizations (COSO) of the Treadway Commission. Management excluded from the scope of its assessment of internal control over financial reporting the operations and related assets of M Cubed Technologies, Inc. which was acquired on November 1, 2012, the Thin Film Filter business and Interleaver product line of Oclaro, Inc. which was acquired on December 3, 2012 and LightWorks Optics, Inc. which was acquired on December 21, 2012. The recent acquisitions excluded from management's assessment of internal controls over financial reporting represented approximately 17.1% and 0.4% of total assets and net assets as of June 30, 2013 and approximately 9.4% and 4.5% of total revenues and net income for the fiscal year then ended. See the "Report of Management" which is set forth under Item 8 of this Annual Report on Form 10-K and is incorporated herein by reference.

**Report of the Registered Public Accounting Firm**

The report of Ernst & Young LLP, an independent registered public accounting firm, with respect to our internal control over financial reporting is included in Item 8 of this Annual Report on Form 10-K and incorporated herein by reference.

**Changes in Internal Control over Financial Reporting**

There have been no changes in the Company's internal controls over financial reporting that occurred during our most recent quarter that has materially affected, or is reasonably likely to materially affect, our internal control over financial reporting.

**Item 9B. OTHER INFORMATION**

None.

### **PART III**

#### **Item 10. DIRECTORS AND EXECUTIVE OFFICERS OF THE REGISTRANT**

The information set forth above in Part I of this Annual Report on Form 10-K under the caption “Executive Officers of the Registrant” is incorporated herein by reference. The other information required by this item is incorporated herein by reference to the information set forth under the captions “Election of Directors,” “Other Information – Section 16(a) Beneficial Ownership Reporting Compliance” in the Company’s definitive proxy statement for the 2013 Annual Meeting of Shareholders to be filed pursuant to Regulation 14A of the Exchange Act (the “Proxy Statement”).

##### **Audit Committee Financial Expert**

The information as to the Audit Committee and the Audit Committee Financial Expert is incorporated herein by reference to the information set forth under the caption “Meetings and Committees of the Board of Directors – Audit Committee” in the Company’s Proxy Statement.

##### **Code of Ethics**

The Company has adopted its Code of Business Conduct and Ethics for all of its employees and its Code of Ethics for Senior Financial Officers including the principal executive officer and principal financial officer. The Code of Business Conduct and Ethics and Code of Ethics for Senior Financial Officers can be found on the Company’s Internet web site at [www.ii-vi.com](http://www.ii-vi.com) under “Investors Information – Corporate Governance Documents.” The Company will promptly disclose on its web site (i) any amendments or waivers with respect to a director’s or executive officer’s compliance with the Code of Business Conducts and Ethics and (ii) any amendments or waivers with respect to any provision of the Code of Ethics for Senior Financial Officers. Any person may also obtain a copy of the Code of Business Conduct and/or the Code of Ethics for Senior Financial Officer without charge by submitting their request to the Chief Financial Officer and Treasurer of II-VI Incorporated, 375 Saxonburg Boulevard, Saxonburg, Pennsylvania 16056 or by calling (724) 352-4455.

The web site and information contained on it or incorporated in it are not intended to be incorporated in this Annual Report on Form 10-K or other filings with the Securities and Exchange Commission.

#### **Item 11. EXECUTIVE COMPENSATION**

The information required by this item is incorporated herein by reference to the information set forth under the caption “Director Compensation,” “Executive Compensation,” “Compensation Committee Report” and “Compensation and Risk” in the Company’s Proxy Statement.

#### **Item 12. SECURITY OWNERSHIP OF CERTAIN BENEFICIAL OWNERS AND MANAGEMENT AND RELATED STOCKHOLDER MATTER**

The information required by this item is incorporated herein by reference to the information set forth under the captions “Equity Compensation Plan Information” and “Principal Shareholders” in the Company’s Proxy Statement.

#### **Item 13. CERTAIN RELATIONSHIPS AND RELATED TRANSACTIONS AND DIRECTOR INDEPENDENCE**

The information required by this item is incorporated herein by reference to the information set forth under the caption “Director Independence and Corporate Governance” in the Company’s Proxy Statement.

#### **Item 14. PRINCIPAL ACCOUNTANT FEES AND SERVICES**

The information required by this item is incorporated herein by reference to the information set forth under the caption “Ratification of Selection of Independent Registered Public Accounting Firm” in the Company’s Proxy Statement.

## PART IV

### Item 15. EXHIBITS AND FINANCIAL STATEMENT SCHEDULES

(a) (1) Financial Statements

The financial statements are set forth under Item 8 of this Annual Report on Form 10-K.

(2) Schedules

Schedule II – Valuation and Qualifying Accounts for each of the three fiscal years in the period ended June 30, 2013 is set forth under Item 8 of this Annual Report on Form 10-K.

Financial statements, financial statement schedules and exhibits not listed have been omitted where the required information is included in the consolidated financial statements or notes thereto, or is not applicable or required.

(3) Exhibits.

<b><u>Exhibit Number</u></b>	<b><u>Description of Exhibit</u></b>	
2.01	Merger Agreement by and among II-VI Incorporated, II-VI Holdings B.V., II-VI Cayman, Inc. Photop Technologies, Inc. and the Shareholder Representative named Therein, dated as of December 28, 2009	Incorporated herein by reference is Exhibit 2.1 to II-VI's Current Report on Form 8-K (File No. 000-16195) filed on January 4, 2010.
2.02	Merger Agreement, dated as of November 1, 2012, by and among II-VI Incorporated, Monarch Acquisition Co., M Cubed Technologies, Inc. and MMMT Representative, LLC, as the stockholder representative	Incorporated by reference is Exhibit 2.1 to II-VI's Current Report on Form 8-K (File No. 000-16195) filed on November 1, 2012.
3.01	Amended and Restated Articles of Incorporation of II-VI Incorporated	Incorporated herein by reference is Exhibit 3.1 to II-VI's Current Report on Form 8-K (File No. 000-16195) filed on November 8, 2011.
3.02	Amended and Restated By-Laws of II-VI Incorporated	Incorporated herein by reference is Exhibit 3.2 to II-VI's Current Report on Form 8-K (File No. 000-16195) filed on November 8, 2011.
10.01	II-VI Incorporated Amended and Restated Employees' Stock Purchase Plan	Incorporated herein by reference is Exhibit 10.04 to II-VI's Registration Statement No. 33-16389 on Form S-1.
10.02	First Amendment to the II-VI Incorporated Amended and Restated Employees' Stock Purchase Plan	Incorporated herein by reference is Exhibit 10.01 to II-VI's Quarterly Report on Form 10-Q (File No. 000-16195) for the Quarter Ended March 31, 1996.

<u>Exhibit Number</u>	<u>Description of Exhibit</u>	
10.03	II-VI Incorporated Amended and Restated Employees' Profit-Sharing Plan and Trust Agreement, as amended	Incorporated herein by reference is Exhibit 10.05 to II-VI's Registration Statement No. 33-16389 on Form S-1.
10.04	Form of Representative Agreement between II-VI and its foreign representatives	Incorporated herein by reference is Exhibit 10.15 to II-VI's Registration Statement No. 33-16389 on Form S-1.
10.05	Form of Employment Agreement*	Incorporated herein by reference is Exhibit 10.16 to II-VI's Registration Statement No. 33-16389 on Form S-1.
10.06	Description of Management-By- Objective Plan*	Incorporated herein by reference is Exhibit 10.09 to II-VI's Annual Report on Form 10-K (File No. 000-16195) for the fiscal year ended June 30, 1993.
10.07	Trust Under the II-VI Incorporated Deferred Compensation Plan*	Incorporated herein by reference is Exhibit 10.13 to II-VI's Annual Report on Form 10-K (File No. 000-16195) for the fiscal year ended June 30, 1996.
10.08	Description of Bonus Incentive Plan*	Incorporated herein by reference is Exhibit 10.14 to II-VI's Annual Report on Form 10-K (File No. 000-16195) for the fiscal year ended June 30, 1996.
10.09	Amended and Restated II-VI Incorporated Deferred Compensation Plan*	Incorporated herein by reference is Exhibit 10.01 to II-VI's Quarterly Report on Form 10-Q (File No. 000-16195) for the Quarter Ended December 31, 1996.
10.10	II-VI Incorporated Arrangement for Director Compensation*	Incorporated herein by reference is Exhibit 10.12 to II-VI's Annual report on Form 10-K (File No. 000-16195) for the fiscal year Ended June 30, 2009.
10.11	II-VI Incorporated 2005 Omnibus Incentive Plan*	Incorporated herein by reference is Exhibit A to II-VI's Definitive Proxy Statement on Schedule 14A (File No. 000-16195) filed on September 26, 2005.
10.12	Form of Nonqualified Stock Option under the II-VI Incorporated 2005 Omnibus Incentive Plan*	Incorporated herein by reference is Exhibit 10.01 to II-VI's Quarterly Report on Form 10-Q (File No. 16195) for the Quarter Ended December 31, 2005.

<b><u>Exhibit Number</u></b>	<b><u>Description of Exhibit</u></b>	
10.13	300,000,000 Japanese Yen Term Loan Second Amendment to Second Amended and Restated Letter Agreement by and among II-VI Japan Incorporated and PNC Bank, National Association dated October 23, 2006.	Incorporated herein by reference is Exhibit 10.2 to II-VI's Current Report on Form 8-K (File No. 000-16195) filed on October 26, 2006.
10.14	Second Allonge to Rate Protection Term Note by and among II-VI Japan Incorporated in favor of PNC Bank, National Association dated October 23, 2006.	Incorporated here by reference is Exhibit 10.3 to II-VI's Current Report on Form 8-K (File No. 000-16195) filed on October 26, 2006.
10.15	Amended and Restated Employment Agreement by and between II-VI and Francis J. Kramer	Incorporated herein by reference to Exhibit 10.1 to II-VI's Current Report on Form 8-K (File No. 000- 16195) filed on September 24, 2008.
10.16	Amended and Restated Employment Agreement by and between II-VI and Vincent D. Mattera, Jr.	Incorporated herein by reference to Exhibit 10.1 to II-VI's Current Report on Form 8-K (File No. 000-16195) filed on September 24, 2008.
10.17	Description of Discretionary Incentive Plan*	Incorporated herein by reference is Exhibit 10.27 to II-VI's Annual Report on Form 10-K (File No. 000-16195) for the fiscal year ended June 30, 2009.
10.18	II-VI Incorporated 2009 Omnibus Incentive Plan*	Incorporated herein by reference is Exhibit A to II-VI's Definitive Proxy Statement on Schedule 14A (File No. 000-16195) filed on September 25, 2009.
10.19	\$50,000,000 Revolving Credit Facility, Credit Agreement by and among II-VI Incorporated and The Guarantors Party Hereto and The Banks Party Hereto and PNC Bank, National Association, As Agent Dated as of June 15, 2011.	Incorporated herein by reference is Exhibit 10.1 to II-VI's Current Report on Form 8-K (File No. 000-16195) filed on June 17, 2011.
10.20	Form of Nonqualified Stock Option under the II-VI Incorporated 2009 Omnibus Incentive Plan*	Incorporated herein by reference is Exhibit 10.27 to II-VI's Current Report on Form 10-Q (File No. 000-16195) filed on February 8, 2012.
10.21	Form of Restricted Share Award under the II-VI Incorporated 2009 Omnibus Incentive Plan*	Incorporated herein by reference is Exhibit 10.28 to II-VI's Current Report on Form 10-Q (File No. 000-16195) filed on February 8, 2012.



<b><u>Exhibit Number</u></b>	<b><u>Description of Exhibit</u></b>	
10.22	Form of Performance Share Award under the II-VI Incorporated 2009 Omnibus Incentive Plan*	Incorporated herein by reference is Exhibit 10.29 to II-VI's Current Report on Form 10-Q (File No. 000-16195) filed on February 8, 2012.
10.23	Form of Stock Appreciation Rights under the II-VI Incorporated 2009 Omnibus Incentive Plan*	Incorporated herein by reference is Exhibit 10.30 to II-VI's Current Report on Form 10-Q (File No. 000-16195) filed on February 8, 2012.
10.24	Form of Performance Share Unit under the II-VI Incorporated 2009 Omnibus Incentive Plan*	Incorporated herein by reference is Exhibit 10.31 to II-VI's Current Report on Form 10-Q (File No. 000-16195) filed on May 9, 2012.
10.25	Form of Restricted Share Unit under the II-VI Incorporated 2009 Omnibus Incentive Plan*	Incorporated herein by reference is Exhibit 10.32 to II-VI's Current Report on Form 10-Q (File No. 000-16195) filed on May 9, 2012.
10.26	Merger Agreement, dated as of November 1, 2012, by and among II-VI Incorporated, Monarch Acquisition Co., M Cubed Technologies, Inc. and MMT Representative, LLC, as the stockholder representative.	Incorporated herein by reference to Exhibit 2.1 to II-VI's Current Report on Form 8-K (File No. 000-16195) filed on November 1, 2012.
10.27	First Amended and Restated Revolving Credit Note by and among II-VI Incorporated and the Guarantors Party thereto and PNC Bank, National Association, as Agent dated as of October 31, 2012.	Incorporated herein by reference to Exhibit 10.1 to II-VI's Current Report on Form 8-K (File No. 000-16195) filed on November 1, 2012.
10.28	II-VI Incorporated 2012 Omnibus Incentive Plan*	Incorporated herein by reference is Exhibit 10.01 to II-VI's Current Report on Form 8-K (File No. 000-16195) filed on November 5, 2012.
10.29	\$140,000,000 Revolving Credit Facility, First Amended and Restated Credit Agreement by and among II-VI Incorporated and The Guarantors Party Thereto and The Banks Party Thereto and PNC Bank, National Association, as Administrative Agent, dated as of November 16, 2012.	Incorporated herein by reference is Exhibit 10.1 to II-VI's Current Report on Form 8-K (File No. 000-16195) filed on November 21, 2012.
10.30	Form of Nonqualified Stock Option under the II-VI Incorporated 2012 Omnibus Incentive Plan*	Filed herewith.

<b><u>Exhibit Number</u></b>	<b><u>Description of Exhibit</u></b>	
10.31	Form of Restricted Share Award under the II-VI Incorporated 2012 Omnibus Incentive Plan*	Filed herewith.
10.32	Form of Performance Share Award under the II-VI Incorporated 2012 Omnibus Incentive Plan*	Filed herewith.
10.33	Form of Stock Appreciation Rights under the II-VI Incorporated 2012 Omnibus Incentive Plan*	Filed herewith.
10.34	Form of Performance Share Unit under the II-VI Incorporated 2012 Omnibus Incentive Plan*	Filed herewith.
10.35	Form of Restricted Share Unit under the II-VI Incorporated 2012 Omnibus Incentive Plan*	Filed herewith.
21.01	List of Subsidiaries of II-VI Incorporated	Filed herewith.
23.01	Consent of Ernst & Young LLP	Filed herewith.
31.01	Certification of the Chief Executive Officer pursuant to Rule 13a-14(a) of the Securities Exchange Act of 1934, as amended, and Section 302 of the Sarbanes-Oxley Act of 2002	Filed herewith.
31.02	Certification of the Chief Financial Officer pursuant to Rule 13a-14(a) of the Securities Exchange Act of 1934, as amended, and Section 302 of the Sarbanes-Oxley Act of 2002	Filed herewith.
32.01	Certification of the Chief Executive Officer pursuant to Rule 13a-14(b) of the Securities Exchange Act of 1934, as amended, and 18 U.S.C. § 1350 as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002	Furnished herewith.
32.02	Certification of the Chief Financial Officer pursuant to Rule 13a-14(b) of the Securities Exchange Act of 1934, as amended, and 18 U.S.C. § 1350 as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002	Furnished herewith.

<u>Exhibit Number</u>	<u>Description of Exhibit</u>	
101	Interactive Data File	
(101.INS)	XBRL Instance Document	Filed herewith.
(101.SCH)	XBRL Taxonomy Extension Schema Document	Filed herewith.
(101.CAL)	XBRL Taxonomy Extension Calculation Linkbase Document	Filed herewith.
(101.DEF)	XBRL Taxonomy Definition Linkbase	Filed herewith.
(101.LAB)	XBRL Taxonomy Extension Label Linkbase Document	Filed herewith.
(101.PRE)	XBRL Taxonomy Extension Presentation Linkbase Document	Filed herewith.

\* Denotes management contract or compensatory plan, contract or arrangement.

The Registrant will furnish to the Commission upon request copies of any instruments not filed herewith which authorize the issuance of long-term obligations of the Registrant not in excess of 10% of the Registrant's total assets on a consolidated basis.



## EXHIBIT INDEX

2.01	Merger Agreement by and among II-VI Incorporated, II-VI Holdings B.V., II-VI Cayman, Inc. Photop Technologies, Inc. and the Shareholder Representative named Therein, dated as of December 28, 2009	Incorporated herein by reference is Exhibit 2.1 to II-VI's Current Report on Form 8-K (File No. 000- 16195) filed on January 4, 2010.
2.02	Merger Agreement, dated as of November 1, 2012, by and among II-VI Incorporated, Monarch Acquisition Co., M Cubed Technologies, Inc. and MMMT Representative, LLC, as the stockholder representative	Incorporated by reference is Exhibit 2.1 to II-VI's Current Report on Form 8-K (File No. 000-16195) filed on November 1, 2012.
3.01	Amended and Restated Articles of Incorporation of II-VI Incorporated	Incorporated herein by reference is Exhibit 3.1to II-VI's Current Report on Form 8-K (File No. 000-16195) filed on November 8, 2011.
3.02	Amended and Restated By-Laws of II-VI Incorporated	Incorporated herein by reference is Exhibit 3.2 to II-VI's Current Report on Form 8-K (File No. 000-16195) filed on November 8, 2011.
10.01	II-VI Incorporated Amended and Restated Employees' Stock Purchase Plan	Incorporated herein by reference is Exhibit 10.04 to II-VI's Registration Statement No. 33-16389 on Form S-1.
10.02	First Amendment to the II-VI Incorporated Amended and Restated Employees' Stock Purchase Plan	Incorporated herein by reference is Exhibit 10.01 to II-VI's Quarterly Report on Form 10-Q (File No. 000-16195) for the Quarter Ended March 31, 1996.
10.03	II-VI Incorporated Amended and Restated Employees' Profit-Sharing Plan and Trust Agreement, as amended	Incorporated herein by reference is Exhibit 10.05 to II-VI's Registration Statement No. 33-16389 on Form S-1.
10.04	Form of Representative Agreement between II-VI and its foreign representatives	Incorporated herein by reference is Exhibit 10.15 to II-VI's Registration Statement No. 33-16389 on Form S-1.
10.05	Form of Employment Agreement*	Incorporated herein by reference is Exhibit 10.16 to II-VI's Registration Statement No. 33-16389 on Form S-1.
10.06	Description of Management-By-Objective Plan*	Incorporated herein by reference is Exhibit 10.09 to II-VI's Annual Report on Form 10-K (File No. 000-16195) for the fiscal year ended June 30, 1993.
10.07	Trust Under the II-VI Incorporated Deferred Compensation Plan*	Incorporated herein by reference is Exhibit 10.13 to II-VI's Annual Report on Form 10-K (File No. 000-16195) for the fiscal year ended June 30, 1996.

10.08	Description of Bonus Incentive Plan*	Incorporated herein by reference is Exhibit 10.14 to II-VI's Annual Report on Form 10-K (File No. 000-16195) for the fiscal year ended June 30, 1996.
10.09	Amended and Restated II-VI Incorporated Deferred Compensation Plan*	Incorporated herein by reference is Exhibit 10.01 to II-VI's Quarterly Report on Form 10-Q (File No. 000-16195) for the Quarter Ended December 31, 1996.
10.10	II-VI Incorporated Arrangement for Director Compensation*]	Incorporated herein by reference is Exhibit 10.12 to II-VI's Annual report on Form 10-K (File No. 000-16195) for the fiscal year Ended June 30, 2009.
10.11	II-VI Incorporated 2005 Omnibus Incentive Plan*	Incorporated herein by reference is Exhibit A to II-VI's Definitive Proxy Statement on Schedule 14A (File No. 000-16195) filed on September 26, 2005.
10.12	Form of Nonqualified Stock Option under the II-VI Incorporated 2005 Omnibus Incentive Plan*	Incorporated herein by reference is Exhibit 10.01 to II-VI's Quarterly Report on Form 10-Q (File No.16195) for the Quarter Ended December 31, 2005.
10.13	300,000,000 Japanese Yen Term Loan Second Amendment to Second Amended and Restated Letter Agreement by and among II-VI Japan Incorporated and PNC Bank, National Association dated October 23, 2006.	Incorporated herein by reference is Exhibit 10.2 to II-VI's Current Report on Form 8-K (File No. 000-16195) filed on October 26, 2006.
10.14	Second Allonge to Rate Protection Term Note by and among II-VI Japan Incorporated in favor of PNC Bank, National Association dated October 23, 2006.	Incorporated here by reference is Exhibit 10.3 to II-VI's Current Report on Form 8-K (File No. 000-16195) filed on October 26, 2006.
10.15	Amended and Restated Employment Agreement by and between II-VI and Francis J. Kramer	Incorporated herein by reference to Exhibit 10.1 to II-VI's Current Report on Form 8-K (File No. 000-16195) filed on September 24, 2008.
10.16	Amended and Restated Employment Agreement by and between II-VI and Vincent D. Mattera, Jr.	Incorporated herein by reference to Exhibit 10.1 to II-VI's Current Report on Form 8-K (File No. 000-16195) filed on September 24, 2008.
10.17	Description of Discretionary Incentive Plan*	Incorporated herein by reference is Exhibit 10.27 to II-VI's Annual Report on Form 10-K (File No. 000-16195) for the fiscal year ended June 30, 2009.

10.18	II-VI Incorporated 2009 Omnibus Incentive Plan*	Incorporated herein by reference is Exhibit A to II-VI's Definitive Proxy Statement on Schedule 14A (File No. 000-16195) filed on September 25, 2009.
10.19	\$50,000,000 Revolving Credit Facility, Credit Agreement by and among II-VI Incorporated and The Guarantors Party Hereto and The Banks Party Hereto and PNC Bank, National Association, As Agent Dated as of June 15, 2011.	Incorporated herein by reference is Exhibit 10.1 to II-VI's Current Report on Form 8-K (File No. 000-16195) filed on June 17, 2011.
10.20	Form of Nonqualified Stock Option under the II-VI Incorporated 2009 Omnibus Incentive Plan*	Incorporated herein by reference is Exhibit 10.27 to II-VI's Current Report on Form 10-Q (File No. 000-16195) filed on February 8, 2012.
10.21	Form of Restricted Share Award under the II-VI Incorporated 2009 Omnibus Incentive Plan*	Incorporated herein by reference is Exhibit 10.28 to II-VI's Current Report on Form 10-Q (File No. 000-16195) filed on February 8, 2012.
10.22	Form of Performance Share Award under the II-VI Incorporated 2009 Omnibus Incentive Plan*	Incorporated herein by reference is Exhibit 10.29 to II-VI's Current Report on Form 10-Q (File No. 000-16195) filed on February 8, 2012.
10.23	Form of Stock Appreciation Rights under the II-VI Incorporated 2009 Omnibus Incentive Plan*	Incorporated herein by reference is Exhibit 10.30 to II-VI's Current Report on Form 10-Q (File No. 000-16195) filed on February 8, 2012.
10.24	Form of Performance Share Unit under the II-VI Incorporated 2009 Omnibus Incentive Plan*	Incorporated herein by reference is Exhibit 10.31 to II-VI's Current Report on Form 10-Q (File No. 000-16195) filed on May 9, 2012.
10.25	Form of Restricted Share Unit under the II-VI Incorporated 2009 Omnibus Incentive Plan*	Incorporated herein by reference is Exhibit 10.32 to II-VI's Current Report on Form 10-Q (File No. 000-16195) filed on May 9, 2012.
10.26	Merger Agreement, dated as of November 1, 2012, by and among II-VI Incorporated, Monarch Acquisition Co., M Cubed Technologies, Inc. and MMMT Representative, LLC, as the stockholder representative.	Incorporated herein by reference to Exhibit 2.1 to II-VI's Current Report on Form 8-K (File No. 000-16195) filed on November 1, 2012.
10.27	First Amended and Restated Revolving Credit Note by and among II-VI Incorporated and the Guarantors Party thereto and PNC Bank, National Association, as Agent dated as of October 31, 2012.	Incorporated herein by reference to Exhibit 10.1 to II-VI's Current Report on Form 8-K (File No. 000-16195) filed on November 1, 2012.
10.28	II-VI Incorporated 2012 Omnibus Incentive Plan*	Incorporated herein by reference is Exhibit 10.01 to II-VI's Current Report on Form 8-K (File No. 000-16195) filed on November 5, 2012.

10.29	\$140,000,000 Revolving Credit Facility, First Amended and Restated Credit Agreement by and among II-VI Incorporated and The Guarantors Party Thereto and The Banks Party Thereto and PNC Bank, National Association, as Administrative Agent, dated as of November 16, 2012.	Incorporated herein by reference is Exhibit 10.1 to II-VI's Current Report on Form 8-K (File No. 000-16195) filed on November 21, 2012.
10.30	Form of Nonqualified Stock Option under the II-VI Incorporated 2012 Omnibus Incentive Plan*	Filed herewith.
10.31	Form of Restricted Share Award under the II-VI Incorporated 2012 Omnibus Incentive Plan*	Filed herewith.
10.32	Form of Performance Share Award under the II-VI Incorporated 2012 Omnibus Incentive Plan*	Filed herewith.
10.33	Form of Stock Appreciation Rights under the II-VI Incorporated 2012 Omnibus Incentive Plan*	Filed herewith
10.34	Form of Performance Share Unit under the II-VI Incorporated 2012 Omnibus Incentive Plan*	Filed herewith
10.35	Form of Restricted Share Unit under the II-VI Incorporated 2012 Omnibus Incentive Plan*	Filed herewith
21.01	List of Subsidiaries of II-VI Incorporated	Filed herewith.
23.01	Consent of Ernst & Young LLP	Filed herewith.
31.01	Certification of the Chief Executive Officer pursuant to Rule 13a-14(a) of the Securities Exchange Act of 1934, as amended, and Section 302 of the Sarbanes-Oxley Act of 2002	Filed herewith.
31.02	Certification of the Chief Financial Officer pursuant to Rule 13a-14(a) of the Securities Exchange Act of 1934, as amended, and Section 302 of the Sarbanes-Oxley Act of 2002	Filed herewith.
32.01	Certification of the Chief Executive Officer pursuant to Rule 13a-14(b) of the Securities Exchange Act of 1934, as amended, and 18 U.S.C. § 1350 as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002	Furnished herewith.



32.02	Certification of the Chief Financial Officer pursuant to Rule 13a-14(b) of the Securities Exchange Act of 1934, as amended, and 18 U.S.C. § 1350 as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002	Furnished herewith.
101	Interactive Data File	
(101.INS)	XBRL Instance Document	Filed herewith.
(101.SCH)	XBRL Taxonomy Extension Schema Document	Filed herewith.
(101.CAL)	XBRL Taxonomy Extension Calculation Linkbase Document	Filed herewith.
(101.DEF)	XBRL Taxonomy Definition Linkbase	Filed herewith.
(101.LAB)	XBRL Taxonomy Extension Label Linkbase Document	Filed herewith.
(101.PRE)	XBRL Taxonomy Extension Presentation Linkbase Document	Filed herewith.

\* Denotes management contract or compensatory plan, contract or arrangement.

The Registrant will furnish to the Commission upon request copies of any instruments not filed herewith which authorize the issuance of long-term obligations of the Registrant not in excess of 10% of the Registrant's total assets on a consolidated basis.









# corporate information

## Board of Directors

**Joseph J. Corasanti**  
President and Chief Executive Officer  
CONMED Corporation

**Wendy F. DiCicco**  
Chief Financial Officer  
Nuron Biotech

**Carl J. Johnson**  
Co-founder and Chairman of the Board  
II-VI Incorporated

**Francis J. Kramer**  
President and Chief Executive Officer  
II-VI Incorporated

**Vincent D. Mattera, Jr.**  
Executive Vice President  
II-VI Incorporated

**Thomas E. Mistler**  
Retired Executive  
Westinghouse Electric Corporation

**Marc Y. E. Pelaez**  
Rear Admiral  
United States Navy (retired)

**Peter W. Sognefest**  
President, Chief Executive Officer and Chairman  
Seamoc, Inc.

**Howard H. Xia**  
General Manager  
Vodafone China Limited

## Executive Officers

**Francis J. Kramer**  
President and Chief Executive Officer

**Vincent D. Mattera, Jr.**  
Executive Vice President

**Craig A. Creaturo**  
Chief Financial Officer and Treasurer

**James Martinelli**  
Vice President – Military & Materials Businesses

## Annual Meeting

Friday, November 1, 2013  
At 1:30 PM EST  
II-VI Incorporated  
375 Saxonburg Boulevard  
Saxonburg, PA 16056

## Stock Listing

The common stock of II-VI Incorporated is traded on Nasdaq under the trading symbol "IIVI."

## Transfer Agent

American Stock Transfer & Trust Company  
6201 15th Ave, 3rd Floor  
Brooklyn, NY 11219  
1.800.937.5449

## Independent Registered Public Accountants

Ernst & Young LLP  
2100 One PPG Place  
Pittsburgh, PA 15222

## Corporate Counsel

Sherrard, German & Kelly, P.C.  
28th Floor, Two PNC Plaza  
Pittsburgh, PA 15222

## Securities Counsel

Buchanan Ingersoll & Rooney PC  
One Oxford Centre  
301 Grant Street, 20th Floor  
Pittsburgh, PA 15219



**II-VI Incorporated**

375 Saxonburg Boulevard, Saxonburg, PA 16056

724.352.4455

[www.ii-vi.com](http://www.ii-vi.com)