New York, NY, USA  
September 24, 2019

**Markets**  
FY2019 Revenue

**Regions**  
FY2019 Revenue

**Segments**  
FY2019 Revenue

18 Countries  
69 Worldwide Locations  
24,000 Worldwide Employees  
$2.6B* Pro Forma Revenue

Asia: 19,700  
North America: 3,400  
Europe: 900

* Pro forma Revenue represents LTM 06/30/2019 for II-VI and LTM 07/28/2019 for Finisar.
**History of Transformation and Growth**

**A Formidable Innovation Leader in Rapidly Growing New Markets**

Now, by combining with Finisar, II-VI is looking forward to leveraging a highly complementary portfolio of products and technology platforms. These will be very important for our future as One II-VI.

**II-VI** has been a leader in engineered materials for almost fifty years, beginning in 1971 by serving the CO$_2$ laser market with CO$_2$ laser optics. II-VI grew as CO$_2$ lasers became increasingly used for industrial laser manufacturing. Over time, II-VI developed a large portfolio of engineered materials for a wide range of end markets. Some of these materials were developed far ahead of the demand. Now, by combining with Finisar, II-VI is looking forward to leveraging a highly complementary portfolio of products and technology platforms.

**Finisar**, for more than thirty years, has introduced breakthrough optical communication products, beginning in 1992 with the industry’s first multimode gigabit transceivers for storage area networks. Finisar became even further vertically integrated in 2003 and 2004 with the acquisition of indium phosphide and gallium arsenide compound semiconductor platforms to manufacture the lasers and detectors that are at the core of their transceiver technologies.

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**History of Technology Acquisitions**

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<tbody>
<tr>
<td>Optics for CO$_2$ laser market</td>
<td>Initiated SiC technology</td>
<td>Entry into fiber laser market</td>
<td>Entry into optical communications market</td>
<td>Acquisition of GaAs VCSEL technology</td>
<td>Acquisition of LCoS WSS technology</td>
<td>Acquisition of tunable laser technology</td>
<td>First pluggable 100G transceivers</td>
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</table>

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- **1971**: Acquisition of the GaAs laser platform
- **1992**: Industry’s first multimode gigabit transceivers
- **1998**: 1998
- **2003**: 2003
- **2004**: 2004
- **2008**: 2008
- **2010**: 2010
- **2011**: 2011
- **2013**: 2013
Technology

Vertically Integrated Technology Platforms

**Compound Semiconductor Platforms**

II-VI offers a broad portfolio of semiconductor lasers that are used in a variety of applications in most of our end markets. They enable several types of high-power lasers for materials processing, optical signal amplification in terrestrial and submarine communications networks, high bit rate server connectivity within datacenters, and 3D sensing in consumer electronics.

**Global Compound Semiconductor Fabs**
Champaign, IL, USA
Fremont, CA, USA
Jarfalla, Sweden
Newton Aycliffe, UK
Sherman, TX, USA
Warren, NJ, USA
Zurich, Switzerland

**Precision Optics Platforms**

II-VI’s optics are shaped by atomic precision and nanotechnology surfacing techniques. They are then coated to improve their ability to withstand high-energy lasers or to achieve the desired spectral characteristics across the electromagnetic spectrum from the ultraviolet to the far-infrared.

**Global Precision Optics Centers**
Fuzhou, China
Guangzhou, China
Ho Chi Minh City, Vietnam
Murrieta, CA, USA
Philadelphia, PA, USA
Santa Rosa, CA, USA
Saxonburg, PA, USA
Singapore
Suzhou, China

> MATERIALS THAT MATTER

**A Leader in Engineered Materials**

<table>
<thead>
<tr>
<th>Compound Semiconductors</th>
<th>Precision Optics</th>
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<tbody>
<tr>
<td>TGG Terbium Gallium Garnet</td>
<td>PMN-PT Lead Magnesium Niobate Lead Titanate</td>
</tr>
<tr>
<td>Si/B4C Reaction-Bonded Boron Carbide</td>
<td>Al/SiC Silicon Carbide Reinforced Aluminum</td>
</tr>
<tr>
<td>KNbO3 Potassium Niobate</td>
<td>ZnS ZnS ZnSe C</td>
</tr>
<tr>
<td>KNSH Potassium Nickel Sulfate Hexahydrate</td>
<td>ZnO</td>
</tr>
<tr>
<td>CaF2 Calcium Fluoride</td>
<td>Al2O3 Aluminum Oxide</td>
</tr>
<tr>
<td>YAG Yttrium Aluminum Garnet</td>
<td>Si/Al2O3 Carbon Fiber Reinforced Silicon Carbide</td>
</tr>
<tr>
<td>Bi2Te3 Bismuth Telluride</td>
<td>YVO4 Yttrium Vanadate</td>
</tr>
<tr>
<td>InP Indium Phosphide</td>
<td>Si/Te Si/Ge</td>
</tr>
<tr>
<td>YLF Yttrium Lithium Fluoride</td>
<td>BIG Bismuth Iodide Iron Molybdenum</td>
</tr>
<tr>
<td>SiC Silicon Carbide</td>
<td>GaAs Gallium Arsenide</td>
</tr>
<tr>
<td>Ge Germanium</td>
<td>BBO Beta Barium Borate</td>
</tr>
<tr>
<td>Si/SiC Reaction Bonded Silicon Carbide</td>
<td>LBO Lithium Triborate</td>
</tr>
</tbody>
</table>

II-VI’s broad portfolio of engineered materials are grown and fabricated in-house. They are differentiated by unique optical, electrical, thermal, and mechanical properties, which we leverage to successfully compete in our end markets. We build on these differentiated materials to develop market-leading devices, components, and subsystems.
Silicon Carbide (SiC) for Wireless

II-VI’s SiC substrates are used in power amplifier devices that are embedded in 4G wireless remote radio heads. These devices are expected to be embedded in even greater numbers in active antennas for 5G wireless. SiC has a high number of intrinsic physical and electronic advantages over competing semiconductor materials, such as the ability to operate at high power levels and still dissipate the excess heat generated.

Silicon Carbide (SiC) for Electric Vehicles

Power-conversion electronics for high-efficiency electric vehicles need a combination of high power density, high efficiency, and high-temperature operation that is only afforded by advanced materials systems based on SiC substrates. Our market-leading SiC substrates have best-in-class quality and low dislocation density, and we have demonstrated perhaps the industry’s first wafer as large as 200 mm in diameter.

EUV Lithography

For the semiconductor manufacturing market, our ultrastable, large-area, reaction-bonded silicon carbide wafer chucks handle the increasingly larger wafer sizes required for advanced device fabrication. Our polycrystalline CVD diamond windows and components are capable of handling high powers for next-generation, extreme ultraviolet lithography systems.

3D Sensing

The convergence of computing, communications, and sensing is expected to enable consumers to experience high-quality, real-time augmented reality on smartphones, automotive heads-up displays, smart glasses, and other types of wearable electronics. These applications are driving the demand for vertical cavity surface-emitting laser (VCSEL) arrays that enable depth-sensing cameras.

Growing Markets

Markets

II-VI’s 7 End Markets

Communications
- ROADM Systems
- Coherent Transmission
- Datacenter Interconnects
- Submarine Transmission
- 5G Wireless
- 5G Optical Infrastructure
- Datacom Transceivers & Active Optical Cables

Materials Processing
- High-Power 1 μm Laser Processing
- High-Power CO2 Laser Processing
- CO2 Laser Microprocessing
- CO Laser Microprocessing
- Ultraviolet Laser Microprocessing
- Ultrafast Laser Microprocessing

Automotive
- High-Power Electronics
- In-Cabin Interaction
- LiDAR Sensing
- Thermal Management Systems

Semiconductor Capital Equipment
- FEOL Photolithography
- MEOL Inspection and Testing
- BEOL Dicing, Packaging, and & Testing

Life Sciences
- Flow Cytometry
- Fluorescence Imaging
- Fluorescence Spectroscopy
- Genome Sequencing
- Clinical Lasers
- FDA-Approved Assemblies

Aerospace & Defense
- Intelligence, Surveillance & Reconnaissance (ISR)
- High-Energy Laser Systems
- Missiles & Ordnance
- Electromagnetic Interference & Survivability

Consumer Electronics
- 3D Sensing in Biometrics
- 3D Sensing in VR & AR
- Human-Machine Interfaces
- Internet of Things (IoT)
II-VI enables the most advanced optical communications networks in the world with innovative products, including high-speed semiconductor lasers and detectors, high-performance optical amplifiers, and precision optical filters and switches. Our innovative products are deployed in all parts of the global communications infrastructure, across terrestrial and undersea networks, and in state-of-the-art datacenters, contributing significantly to the rapid growth of cloud computing and making 5G wireless communications a reality.

II-VI takes the long-term view with respect to its investments in engineered materials and technology platforms. These investments are both for today’s exciting market megatrends and for future opportunities that have yet to emerge. Early investments in technology platforms that we are convinced will be needed in the future have been, and will continue to be, at the core of II-VI’s strategy. Each business unit in II-VI’s Compound Semiconductors Segment hosts a series of highly differentiated product, technology, and manufacturing platforms.
Enabling the world to be safer, healthier, closer, and more efficient

Leadership Team

Vincent D. Mattera, Jr. - Chief Executive Officer
Bob Bashaw - President
Giovanni Barbarossa - Chief Strategy Officer, II-VI Incorporated, and President, Compound Semiconductors
Sunny Sun - President, Photonic Solutions
Tim Challingsworth - Chief of Staff
Anantha Ganga - Chief Information Officer
Ishrat Hakim - Chief Sales Officer
Gary A. Kapusta - Chief Procurement Officer
Chris Koeppen - Chief Technology Officer
Sanjai Parthasarathi - Chief Marketing Officer
Mary Jane Raymond - Chief Financial Officer
Shirley Reha - Chief Human Resources Officer
Jo Anne Schwendinger - Chief Legal & Compliance Officer, Corporate Secretary
Chris Theis - Chief Quality Officer
The Roman numerals "II-VI" refer to group II and group VI of the Periodic Table of Elements. By chemically combining elements from these groups, II-VI produced the infrared optical crystalline compounds cadmium telluride (CdTe), zinc selenide (ZnSe), zinc sulfide (ZnS), and zinc sulfide multispectral (ZnS MS). These compounds and others created from group II and group VI elements are commonly referred to as "II-VI materials." Founded in 1971 to create CdTe, company co-founder Dr. Carl J. Johnson paid homage to our II-VI materials heritage by calling our new company "II-VI Incorporated."