

# Materials That Matter

*II-VI Incorporated, a global leader in engineered materials and optoelectronic components, reported results for its fiscal 2020 third quarter ended March 31, 2020. In this second full quarter of II-VI operations, the company successfully continued its integration activities amid the COVID-19 pandemic. II-VI is a vertically integrated manufacturing company that develops innovative products for diversified applications in the industrial, communications, aerospace & defense, life sciences, semiconductor capital equipment, automotive, and consumer electronics markets.*

II-VI was founded, and is still headquartered, in Saxonburg, Pennsylvania in 1971 to make laser optics for CO2 lasers and went public in 1987. Through its steady development and successful strategic acquisitions, the company today has over 22,000 employees, in 69 locations, in 18 countries.

In 2019, II-VI closed the acquisition of Finisar Corporation, the largest acquisition in its history. With this transformative acquisition, II-VI's FY19

pro forma revenue is \$2.6B, with thousands of customers in diversified markets. Finisar brings to II-VI a world-class indium phosphide (InP) technology platform that is essential in the buildout of 5G and the growth of the cloud. With this technology platform, II-VI is a market leader in optical communications components and is one of the largest photonics and compound semiconductors companies in the world. II-VI today has two operating segments: Photonic Solutions,

which represents seventy percent of the business, and Compound Semiconductors, which represents the remaining thirty percent of revenue. The company is recognized as a true leader in engineered materials and optoelectronic devices which is so fundamental to its core competency that they adopted the tag line 'Materials That Matter'. With a strong focus on materials that exhibit unique optical, electrical, thermal, or mechanical properties, these materials take a long time to develop and usually enable multiple applications. Dr. Chuck Mattera, CEO, II-VI Incorporated says: "About two-thirds of our business is in optical communications, of which about half is in telecom and half in datacom. That business is driven by 5G and cloud computing. II-VI offers a full portfolio

of semiconductor lasers, optics, and electronics for telecom networks and large datacenters in the cloud that underpin the internet. Telecom networks span the globe with terrestrial and undersea fiber-optic links that provide high-speed connectivity to deliver wireless and wireline broadband services from large datacenters in the cloud." Dr. Mattera states that 3D sensing also is a rapidly emerging application that enables face biometrics in smartphones using semiconductor lasers. "II-VI has shipped hundreds of millions of laser arrays for 3D sensing in mobile phones and we expect that business to accelerate with the advent of augmented reality, which will have many more applications and will require semiconductor lasers to be "world-facing" in a number of consumer devices such as smartphones, tablets, and smart glasses. These world-facing lasers will act like sensors, scanning the environment and digitally recreating the scene in three dimensions in order to augment it with information from the cloud. This illustrates the convergence of communications, computing, and sensing: To be effective, the superposition of cloud information on the scene must appear to the user to be instantaneous. This drives the demand for low latency in the network, which is one of the important use cases for 5G."

II-VI additionally recognizes that the convergence of electrification and renewable energy is another megatrend that is essential to the long-term strategy of many governments to reduce their dependence on fossil fuels and lower greenhouse emissions. What is less well-known is that electrification and

renewable energy are more efficient with power electronics made with silicon carbide (SiC). Today, SiC represents only about 6% of the company's revenue, but the demand is growing rapidly. As a result, II-VI expects to scale its capacity by 5-10 times over the next five years. In June 2020, II-VI reported record quarterly bookings of \$840M, twenty-two percent above forecast. "We invest early in the development of engineered materials, based on our convictions of their long-term potential," explains Dr. Mattera. "We understand that it takes a lot of time to develop the body of knowledge, necessary to establish a disruptive technology platform that enables differentiated products and economies of scale, as the demand grows. We invest in technology platforms even before we are certain of their intended use, because by the time commercial opportunities arise, it's usually too late to begin their development."

In short, II-VI focuses on technology platforms, whether developed or acquired, that enable, or have the potential to enable, multiple applications in multiple end markets. Dr. Mattera comments: "We delivered \$627M of revenue, and our margins on a GAAP and non-GAAP basis were strong. This performance is the result of growing and accelerating demand for our products across key end markets, as well as continued success with our M&A integration efforts that are at least 12 months ahead of plan." He concludes: "Among the many priorities that we have set for ourselves is the development of a stronger corporate culture that is more unified across our footprint.

We continue to be strongly committed to our purpose, which is stated in our mission: Enabling the world to be safer, healthier, closer, and more efficient."

## II-VI

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